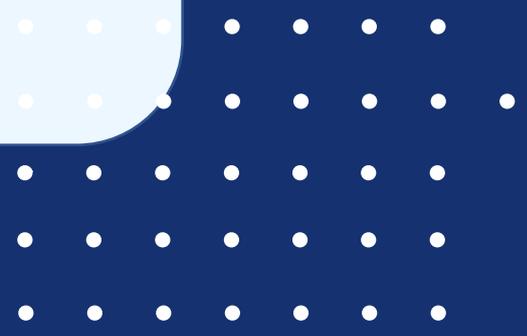


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June - 2022

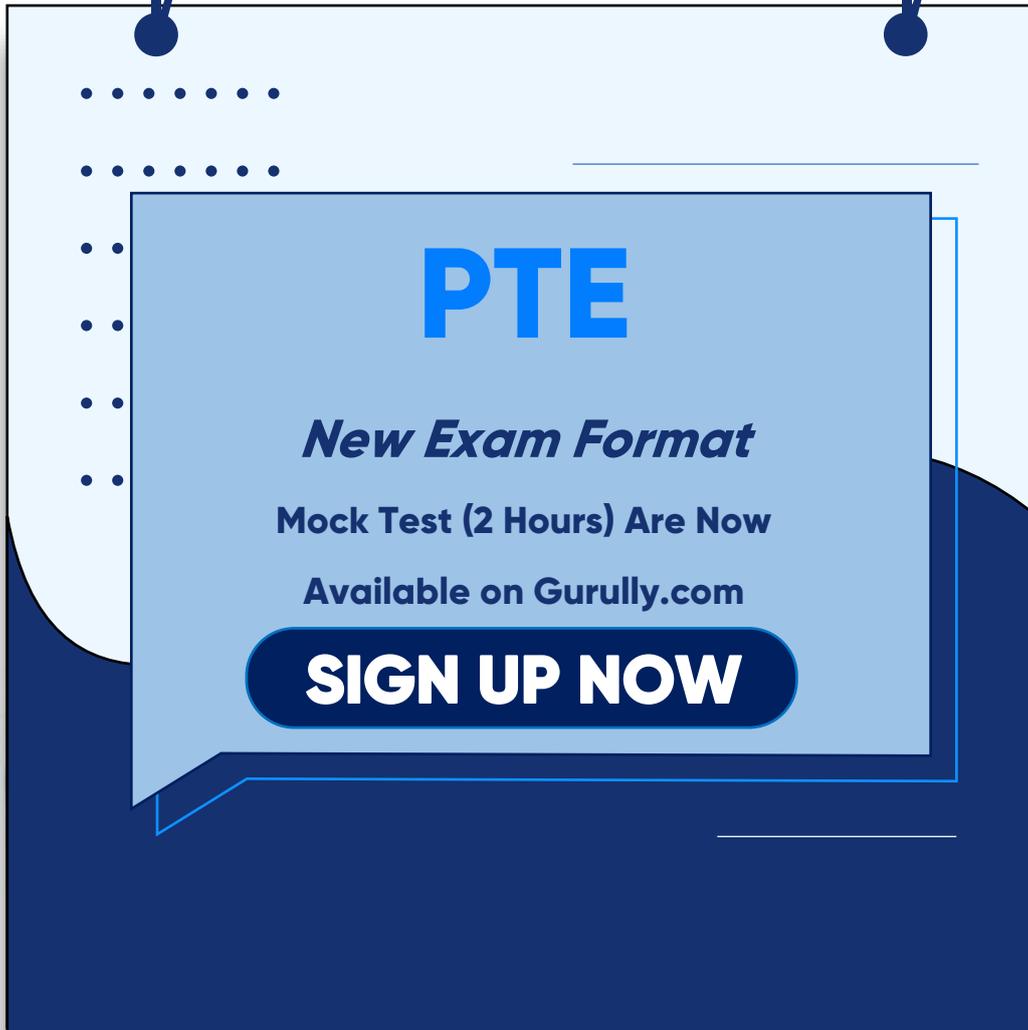


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SPEAKING





READ ALOUD

1. The findings of modern research support the view that the evolution of primitive men and its culture should be regarded as "unity". Yet this unity is exceedingly complex, and future research will doubtless enable us to make finer distinctions between the periods that people composed it.
2. The wonderful framework of mature trees creates a secluded implants atmosphere that unites a great variety of plantings to inspire visitors in all seasons. Spring in the garden is marked by leafing up and flowering of trees and the eruption of the flowers in the bulb meadows, and woodland understory.
3. There were two types of soldier in the Roman Army: the roman legionary and the auxiliaries. The legionaries were the very best soldiers and the auxiliaries were actually non-Roman citizens. Legionaries wore an undershirt made of linen and a woollen tunic. The linen helped the soldiers to stay cool while the wool helped to trap heat, keeping the soldiers warm.
4. In order to achieve the free flow of goods and services, with work and capital between the member countries, they needed to establish mutual politics in areas as diverse as agriculture, transport, and when they concerned with a far wider range of issues.
5. Scholars build their own personal libraries to support not only particular projects but also general reading in their field. They buy or make photocopies of materials when possible, so they can consult them frequently, mark pages and write annotation on them. When moving into a new field, they add to their collections, usually concentrating on primary texts.



6. Behavioral and social sciences research helps predict, prevent, and manage illness – in individuals and in whole populations. This research also helps people change their behaviors, understand treatments, and learn how to stick with them. Society's role is significant, too: access to health care affects decision making and behavior.
7. Undergraduates may choose to major in any one of 125 academic majors. The universities distinguished faculty includes internationally known scientists, authors and teachers who are committed to continuing the university's tradition in providing one of the highest quality undergraduate educations available.
8. It's time for this young loggerhead turtle to go to work. We can tether turtles in these little cloth harnesses, put them into this tank and dull swimming place. University of North Carolina biologist Ken Loman studies sea turtles that are programmed from birth for an extraordinary journey. Mother turtles buried the eggs on the beach and then returned to the sea and the eggs hatch about 50 to 60 days later.
9. The benefits and disadvantages of globalization are the subject of ongoing debate. The downside to globalization can be seen in the increased risk for the transmission of diseases. Globalization has of course led to great good, too. Richer nations now can come to the aid of poorer nations in crisis. Increasing diversity in many countries has meant more opportunity to learn about and celebrate other cultures.
10. While advances in agricultural science have always been critical to ensuring we help feed the world, its impact and importance is even greater now, as population grows at a rapid rate and the availability of arable land steadily declines. Science and technology solutions are essential to meeting growing



demand for food, maintaining market competitiveness and adapting to land mitigating risks

11. Some of the pain patients may become hooked. Or their meds may find their way to friends or relatives who take them recreationally. Or a prescription opioid user may transition to heroin. Heroin is just another opioid drug, so the brain doesn't distinguish whether it comes from a pharmacy or from a street drug dealer.
12. Much of today's business is conducted across international borders, and while the majority of the global business community might share the use of English as a common language, the nuances and expectations of business communication might differ greatly from culture to culture.
13. The speaker reminisces about his views of the English Revolution when he was a student and how it seemed quite clear which side he was on - 'the aristocrats, not the puritans'. Later he realized there was more to it than that and there were several ways of interpreting the Revolution: as a struggle between the king and parliament, as a class war or as an unpredictable situation without clear sides.
14. History is selective. What history books tell us about the past is not everything that happened, but what historians have selected. They cannot put in everything: choices have to be made. Choices must similarly be made about which aspects of the past should be formally taught to the next generation in the shape of school history lessons.
15. Global water consumption has increased almost fourfold in the past 100 years, and many regions can only meet their water demand thanks to essential contributions from mountain regions. In 30 years, almost a quarter of the world's lowland population will strongly depend on runoff from the



mountains. Only sustainable development can ensure the important function of mountain areas as Earth's 'water towers'.

16. Summerhill School was regarded with considerable suspicion by the educational establishment. Lessons were optional for pupils at the school, and the government of the school was carried out by a School Council, of which all the pupils and staff were members, with everyone having equal voting rights.
17. Nature offers no greater splendor than the starry sky on a clear, dark night. Silent, timeless, jeweled with the constellations of ancient myth and legend, the night sky has inspired wonder throughout the ages – a wonder that leads our imaginations far from the confines of Earth and the pace of the present day, out into boundless space and cosmic time itself.
18. The survey found that the statistical chances of someone from a poor background being accepted at one of the country's most respected universities are far lower than those of a student from a wealthy family. This means that the inequalities in society are likely to be passed down from one generation to the next.
19. Quite obviously, a significant rise in the number of people in a given area or country will affect the demand for a whole host of goods and services. Note that a change in the structure of the population will increase the demand for some goods but reduce the demand for others
20. A level of competence in chemistry is essential to the professional practice of material conservation. An understanding of scientific concepts and a basic scientific vocabulary enables the conservator to understand conservation problems, treatments, material techniques in a systematic and quantifiable way, which can be communicated not only to colleagues in the profession but also those from other disciplines.



21. Tissues are grouped together in the body to form organs. These include the brain, heart, lungs, kidneys, and liver. Each body organ has a specific shape and is made up of different types of tissue that work together. For example, the heart consists mainly of a specialized type of muscle tissue, which contracts rhythmically to provide the heart's pumping action.
22. The life of a hunter-gatherer is indeed, as Thomas Hobbes said of the state of nature, 'solitary, poor, nasty, brutish, and short'. In some respects, to be sure, wandering through the jungle bagging monkeys may be preferable to the hard slog of subsistence agriculture.
23. The Assembly also decided that, at that special session, it would adopt a concise and action-oriented political declaration, agreed upon in advance by consensus through intergovernmental negotiations under the auspices of the Conference.
24. Aquaculture, also known as aquafarming, is the farming of aquatic organisms such as fish, crustaceans, molluscs and aquatic plants. Aquaculture involves cultivating freshwater and saltwater populations under controlled conditions.
25. Emerald is defined by its green color. To be an emerald, a specimen must have a distinctly green color that falls in the range from bluish green to green to slightly yellowish green. To be an emerald, the specimen must also have a rich color. Stones with weak saturation or light tone should be called "green beryl." If it is greenish yellow it is "heliodor." This color definition is a source of confusion.
26. While blue is one of the most popular colors, it is one of the least appetizing. Food researchers say that when humans searched for food, they learned to avoid toxic or spoiled objects, which were often blue, black or purple. When food dyed, blue is served to study subjects, they lose appetite.



27. When countries assess their annual carbon emissions, they count up their cars and power stations, but bush fires are not included presumably because they are deemed to be events beyond human control. In Australia, Victoria alone sees several hundred thousand hectares burn each year; in both and more recently, the figure has been over one million hectares.
28. Tesla's theoretical work formed the basis of modern alternating current electric power systems. Thomas Edison promised him almost one million dollars in today's money to undertake motor and generator improvement. However, when Tesla, the ethical Serb, asked about the money, Edison's reportedly reply was "Tesla, you don't understand our American humor." The pair became arch-rivals.
29. The core of the problem was the immense disparity between the country's productive capacity and the ability of people to consume. Great innovations in productive techniques during and after the war raised the output of industry beyond the purchasing capacity of U.S. farmers and wage earners.
30. Every morning, no matter how late he had been up, my father rose at five-thirty, went to his study, wrote for a couple of hours, made us all breakfast, read the paper with my mother, and then went back to work for the rest of the morning. Many years passed before I realized that he did this for a living.
31. Although it hails from a remote region of the western Himalayas, this plant now looks entirely at home on the banks of English rivers, and colonized riverbanks and damp woodlands. In the Himalayas the plant is held in check by various pests, but take these away and it grows and reproduces unhindered. Now it is spreading across Europe, New Zealand, Canada and the US.
32. Pluto lost its official status when the International Astronomical Union downsized the solar system from nine to eight planets. Although there had



been passionate debate at the General Assembly Meeting in Prague about the definition of a planet, and whether Pluto met the specifications, the audience greeted the decision to exclude it with applause.

33. Lincoln's apparently radical change of mind about his war powers to emancipate slaves was caused by the escalating scope of the war, which convinced him that any measure to weaken the Confederacy and strengthen the Union war effort was justifiable as a military necessity.
34. A young man from a small provincial town, a man without independent wealth, without powerful family connections and without a university education, moves to London in the fifteen eighties, and becomes a remarkable playwright of all time. How is an achievement of magnitude made? How does Shakespeare become Shakespeare?
35. Domestication is an evolutionary, rather than a political development. They were more likely to survive and prosper in an alliance with humans than on their own. Humans provided the animals with food and protection, in exchange for which the animals provided the humans their milk and eggs and, yes, their flesh
36. Akimbo, this must be one of the odder-looking words in the language and puzzles us in part because it doesn't seem to have any relatives. What's more, it is now virtually a fossil word, until recently almost invariably found in arms akimbo, a posture in which a person stands with hands on hips and elbows sharply bent outward, one signaling impatience or hostility.
37. The elephant is the largest living land mammal. During evolution, its skeleton has greatly altered from the usual mammal, designed for two main reasons. One is to cope with the great weight of huge grinding cheek teeth and elongated tusk, making the skull particularly massive. The other is to support the enormous bulk of such a huge body.



38. The situation is similar to a pregnant woman that has twin babies in her belly, says Avi Loeb of the Harvard- Smithsonian Center for Astrophysics. He's proposing the idea in a paper that's been accepted for publication in the Astrophysical Journal Letters.
39. Few things in the world produce such amazement as one's first glimpse of the Grand Canyon; it took around more than billion years to create this vast wonder in some places. miles wide, largely through the relentless force of the Colorado River, which runs miles along its length and a mile beneath its towering rims.
40. Global warming is defined as an increase in the average temperature of the earth's atmosphere. This trend began in the middle of the century and is one of the major environmental concerns of scientists and governmental officials worldwide. The changes in temperature result mostly from the effect of increased concentrations of greenhouse gasses in the atmosphere.
41. The speaker is a marine biologist who became interested in the Strandlopers, an ancient people who lived on the coastline, because of their connection to the sea. Their way of life intrigued him. As a child he had spent a lot of time by the sea, exploring and collecting things so he began to study them, and discovered some interesting information about their way of life, how they hunted, what tools they used, and so on.
42. There are perhaps three ways of looking at furniture: some people see it as purely functional and useful, and don't bother themselves with aesthetics; others see it as essential to civilized living and concern themselves with design and how the furniture will look in a room. In other words, function combined with aesthetics; and yet others see furniture as a form of art.
43. Modern buildings have to achieve certain performance requirements, at least to satisfy those of building codes, to provide a safe, healthy, and comfortable



environment. However, these conditioned environments demand resources in energy and materials, which are both limited in supply, to build and operate.

44. As a historian, if you really want to understand the sensibilities of those who lived in the past, you must be like a novelist and get into the skins of your characters and think and feel as they do. You are asked to imagine what it's like to be a peasant in medieval times, asking the sort of questions a peasant might ask. What the writer is saying is that a historian needs imaginative sympathy with ordinary people in the past.
45. Humans need to use energy in order to exist. So, it is unsurprising that the way people have been producing energy is largely responsible for current environmental problems. Pollution comes in many forms, but those that are most concerning, because of their impact on health, result from the combustion of fuels in power stations and cars.
46. The border itself between Mexico and United States is fraught with a mix of urban and desert terrain and spans over one thousand nine hundred miles. Both the uninhabited areas of the border and urban areas are where the most drug trafficking and illegal crossings take place. Crime is prevalent in urban cities like El Paso, Texas and San Diego, California.
47. Researchers think that long-distance fliers such as the American golden-plover and the white-rumped sandpiper picked up the spores while lining their nests. Then when the birds arrive in new places they molt, leaving behind the feathers and their precious cargo—to start growing again at the other end of the world.
48. Moods may also have an effect on how information is processed, by influencing the extent to which judges rely on pre-existing, internal information, or focus on new, external information. Positive moods promote



more holistic and top-down processing style, while negative moods recruit more stimulus-driven and bottom-up processing.

49. Reiss took a stab at settling the argument with a meta-analysis, a study of studies, on whether people can really perceive better-than CD-quality sound. He analyzed data from studies, including more than participants and nearly thirteen thousand listening tests. Overall, listeners picked out the better-than CD-quality track fifty-two-point three percent of the time. Statistically significant, if not all that impressive.
50. It's not that human activities didn't impact wildlife at all of course. Heavily hunted species, like white-tailed deer, grey squirrels, and raccoons, were photographed somewhat less often in hunted areas. Coyotes showed up more often in hunted areas. While most species didn't avoid hiking trails, the predators actually preferred them.
51. Trade unions originated in Europe during the industrial revolution. Because of the machinery that had become commonplace, skilled labor became less in demand, so employers had nearly all of the bargaining power. Employers mistreated the workers and paid them too little for the work they did. Trade unions were organized that would help in the improvement of working conditions.
52. The brain is divided into two hemispheres, called the left and the right hemispheres. Each hemisphere provides a different set of functions, behaviors, and controls. The right hemisphere is often called the creative side of the brain, while the left hemisphere is the logical or analytic side of the brain. The right hemisphere controls the left side of the body, and the left hemisphere controls the right side.
53. Introvert, or those of us with introverted tendencies, tends to recharge by spending time alone. They lose energy from being around people for long



periods of time, particularly large crowds. Extroverts, on the other hand, gain energy from other people. Extroverts find their energy is sapped when they spend too much time alone. They recharge by being social.

54. Such cross-protection is usually seen between two animals. But Gore studies the same sort of mutualism in microbes. He and his team demonstrated the first experimental example of that cross-protective relationship in drug-resistant microbes, using two strains of antibiotic-resistant E. coli bacteria: one resistant to ampicillin, the other to chloramphenicol.
55. The uniquely scented flavor of vanilla is second only to chocolate in popularity on the world's palate. It's also the second most expensive spice after saffron. But highly labor-intensive cultivation methods and the plant's temperamental life cycle and propagation mean production on a global scale is struggling to keep up with the increasing demand for the product.
56. Food is one of the most important things you'll ever buy. And yet most people never bother to think about their food and where it comes from. People spend a lot more time worrying about what kind of blue jeans to wear, what kind of video games to play, what kind of computers to buy.
57. Blue is the most popular color. Food researchers disagree when humans searched for food, they learned to avoid toxic or spoiled objects, which were often blue, black, or purple. When food dyed, blue is served to study subjects, they lose appetite.
58. Before European explorers had reached Australia, it was believed that all swans were white. Dutch mariner, Antoine Caen, was the first to be amazed at the sight of Australia's Black swans on the Shark Bay in 1636. Explorer Willem de Vlamingh captured two of these creatures on Australia's Swan River and returned with them to Europe to prove their existence. From that point on, black swans and Australia have been closely linked.



59. A national study into fraud by bookkeepers employed at small and medium-sized businesses has uncovered 65 instances of theft in more than five years, with more than \$31 million stolen. Of the cases identified by the research, 56 involved women and nine instances involved men. However, male bookkeepers who defrauded their employer stole three times, on average, the amount that women stole.
60. Tesla's theoretical work formed the basis of modern alternating current electric power systems. Thomas Edison promised him almost one million dollars in today's money to undertake motor and generator improvement. However, when Tesla asked about the money, Edison reportedly replied "Tesla, you don't understand our American humor." The pair became arch-rivals.
61. Few things in the world produce such amazement as one's first of glimpse of the Grand Canyon; it took around more than 2 billion years to create this vast wonder - in some places. 17 miles wide, largely through the relentless force of Colorado River, which runs 277 miles along its length, a mile beneath its towering rims.
62. Australians do speak English. However, for some tourists and travelers, it can be difficult to understand the slang. Also, the links between Australian and American English were seen to be very tenuous. At least some colloquialisms in Australian English do not exist in other types of English.
63. Shrimp farmers used to hold animals in nursery ponds for 30 to 60 days; now they try to move them into grow-out ponds in less than 30 days. This reduces stress on the animals and dramatically increases survivals in the grow-out ponds. Many farms that abandoned nursery ponds have gone back to them, and the results have been surprisingly positive. They're using the old, uncovered, earthen, nursery ponds.



64. The elephant is the largest living land mammal. During evolution, its skeleton has greatly altered from the usual mammal, designed for two main reasons. One is to cope with the great weight of huge grinding cheek teeth and elongated tusk, making the skull particularly massive. The other is to support the enormous bulk of such a huge body.
65. Traditional divisions of domestic work are understood to persist because of the strong association of the home with femininity and paid work with masculinity - to challenge who does what in the home is arguably tantamount to challenging what it is to be a woman or a man.
66. When we recycle, used materials are converted into new products, reducing the need to consume natural resources. If used materials are not recycled, new products are made by extracting fresh, raw material from the Earth, through mining and forestry. Recycling helps conserve important raw materials and protects natural habitats for the future.
67. The Japanese tea ceremony is a ritual tour influenced by Buddhism in which green tea is prepared and served to a small group of guests in a peaceful setting. The ceremony can take as long as four hours and there are many traditional gestures that both the server and the guest must perform.
68. The preparation of abstracts is an intellectual effort, requiring general familiarity with the subject. To bring out the salient points of an author's argument calls for skills and experience. Consequently, a considerable amount of qualified manpower that could be used to advantage in other ways must be diverted to the task of facilitating access to information.
69. Exhilarating, exhausting and intense. There are just some of the words used to describe doing an MBA. Everyone's experience of doing MBA is, of course, different through denying that it's hard and a demanding work whichever



course you do. MBA is one of the fastest growing areas of studying in the UK so that must be a sustainable benefit against form in one pain.

70. A unique characteristic of online shopping environments is that they allow vendors to create retail interfaces with highly interactive features. One desirable form of interactivity from a consumer perspective is the implementation of sophisticated tools to assist shoppers in their purchase decisions by customizing the electronic shopping environment to their individual preferences.
71. Certainly, one of the important values of literature is that it nourishes our emotional lives. An effective literary work may seem to speak directly to us especially if we are ripe for it. The inner life that good writers reveal in their characters often gives us glimpses of some portion of ourselves. We can be moved to laugh, cry, tremble, dream, ponder, shriek, or rage with a character by simply turning the page instead of turning our lives upside down.
72. Australians speak English of course. But for many tourists and even some locals, Australian English has only tenuous links with mother tone. Our speech is prepared with words and phrases whose arcane meanings are understood only by the initiate. It is these colorful colloquialisms that Australian slang set to truly explain.
73. Australia has one of the world's most important mining industries. It is a major exporter of coal, iron ore, gold and copper and is self-sufficient in all minerals bar petroleum. Since the first discoveries, the coal in 1798, mineral production has risen every year. In the decade to 1992 it doubled.
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76. Public demand for education has remained strong, reflecting the importance of education as a means of social progress. Aware of the social value of education to the world of the work, the government continues to innovate and update the education system in order to produce a qualified and competent work force.
77. Exhilarating, exhausting and intense. There are just some of the words used to describe doing an MBA. Everyone's experience of doing MBA is, of course, different through denying that it's hard and a demanding work whichever course you do. MBA is one of the fastest growing areas of studying in the UK so that must be a sustainable benefit against form in one pain.
78. A unique characteristic of online shopping environments is that they allow vendors to create retail interfaces with highly interactive features. One desirable form of interactivity from a consumer perspective is the implementation of sophisticated tools to assist shoppers in their purchase decisions by customizing the electronic shopping environment to their individual preferences.
79. Internal combustion engine enables the driver to decide which source of power is appropriate for the travel requirements of a given journey. Major US auto manufacturers are now developing feasible hybrid electric vehicles, and some are exploring fuel-cell technology for their electric cars.
80. Certainly, one of the important values of literature is that it nourishes our emotional lives. An effective literary work may seem to speak directly to us



especially if we are ripe for it. The inner life that good writers reveal in their characters often gives us glimpses of some portion of ourselves. We can be moved to laugh, cry, tremble, dream, ponder, shriek, or rage with a character by simply turning the page instead of turning our lives upside down.

81. Australians speak English of course. But for many tourists and even some locals, Australian English has only tenuous links with mother tongue. Our speech is prepared with words and phrases whose arcane meanings are understood only by the initiate. It is these colorful colloquialisms that Australian slang set to truly explain.
82. The Atlantic coast of the peninsula can be thought of as the cold side, and the sea on this coast tends to be clear and cold, with a variety of seaweeds growing along the rocky shoreline. On a hot day, however, this cold water can be very refreshing and is said to be less hospitable to sharks, which prefer warmer waters.
83. Australia has one of the world's most important mining industries. It is a major exporter of coal, iron ore, gold and copper and is self-sufficient in all minerals bar petroleum. Since the first discoveries, the coal in 1798, mineral production has risen every year. In the decade to 1992 it doubled.
84. It was found that while many companies express interest in Jacobson's use case approach, actual scenario usage often falls outside what is described in textbooks and standard methodologies. Users therefore face significant scenario management problems not yet addressed adequately in theory or practice, and are demanding solutions to these problems.
85. If countries can specialize in certain goods they can benefit from economies of scale and lower average cost. This is especially true in the industry with high fixed costs or that require a high level of investment. The benefits of the



economy of scale will ultimately lead to lower prices for consumers and greater efficiency for exporting firms.

86. But on May 3, a couple of weeks later, Lincoln issued an executive order calling for 43,000 three-year volunteers for the army, and also increasing the size of the regular army and navy by 40,000 men. Both of these actions were in apparent violation of the constitution.
87. Today, telecommunication is widespread and devices that assist the progress are common in many parts of the world. There is also a vast array of networks that connect these devices, including computer, telephone and cable networks. Computer communication across the Internet, such as e-mail and instant messaging, is just one of many examples of telecommunication.
88. A thesis is a claim that you can argue for or against. It should be something that you can present persuasively and clearly in the scope of your paper, so keep in mind the page count. If possible, your thesis should be somewhat original.
89. The Royal Institution is an organization that has been around for 209 years. Many of the people that have worked here have been scientists themselves, including Michael Faraday. He made the discoveries that made generating and using electricity much easier, making it possible for us all to switch on lights, cook our dinner, play games consoles much, much more.
90. It is precisely in observing the intertwining's of success and failure that Chasing the Flame makes its greatest mark. With piercing insight and relentless logic, it reveals the pitfalls of international politics and details an intricate struggle between individual and institution. It haunts us with the poignant truth that even a great man can do only so much to reinvent the world.



91. It is very easy to acquire bad habits, such as eating too many sweets or too much food, or drinking too much fluid of any kind, or smoking, etc. The more we do a thing, the more we tend to like doing it. In later stage, if we do not continue to do it, we feel unhappy. This is called the 'force of habit' and the force of habit should be fought against.
92. Termites, the tiny creatures – have learnt to create a comfortable home in some of the world's toughest climates. Outside, in the African Savannah the temperatures vary from forty degrees in the day to one degree at night. Yet, inside the mound, the temperature stays constant.
93. Soil is the top layer of the Earth's surface, mostly created from weathered rock. It is made up of varying amounts of minerals, humus, or decayed organic matter, and useful living creatures like worms. The finest rock particles within soil – forms sticky clay, the medium particles become silt, and the coarsest constitute sand. While there is sufficient moisture, soil supports vegetation, providing a habitat for a variety of animals.
94. Pronunciation is the way in which a word or a language is spoken. This may refer to generally agreed-upon sequences of sounds used in speaking a given word or language in a specific dialect ("correct pronunciation") or simply the way a particular individual speaks a word or language.
95. In a landmark report published on Monday, the international financial institution called on states to reduce global emissions and bridge the development gap to avoid the effects of slow-onset climate change such as water scarcity, decreasing crop productivity, and rising sea levels.
96. The interludes which break up the gameplay action, and which, because they can be made to a higher level of animation, often provide the most visually arresting sequences of a game. Combined with a taste for bizarrely



complicated, recursive plots, and long sequences of wordy explicatory dialogue, this turns the games into a bit of a drag.

97. Just as the world's fifth-largest economy emerges from the COVID-19 pandemic, the post-Brexit shortage of truck drivers and a spike in European natural gas prices has left the UK grappling with the grim prospect of a potential food supply crunch and soaring energy bills.
98. Australian scientists say they have developed pain-free blood sugar testing for diabetics, a non-invasive strip that checks glucose levels via saliva for diabetics. Managing their blood sugar levels typically means pricking their fingers multiple times a day with a lancet and then placing a drop of blood on a testing strip
99. There are many reasons why water tastes stale when it is kept for a long time. Microorganisms play a big role in this phenomenon. When they grow, they release chemicals into the water from their metabolic activity. This evaporates over time, so the absence of it from water left out for a long period brings about a change in taste.
100. Tests of a drug known to stimulate brain activity have shown early success in reducing symptoms of sluggish cognitive tempo in 38 men and women with attention deficit hyperactivity disorder. It also significantly corrected deficits in executive brain function, with fewer episodes of procrastination, improvements in keeping things in mind, and strengthened prioritization skills.
101. New research identifies a process that might have been key in producing the first organic molecules on Earth about 4 billion years ago, before the origin of life. The process, which is similar to what might have occurred in some ancient underwater hydrothermal vents, may also have relevance to the search for life elsewhere in the universe.



102. A total of five ozone ascents were taken at Bharati station (Indian mission) Antarctica during April to June, 2016. As the stratospheric temperatures reduced to -82.24 C on 20th June, 2016 indicating the formation of stratospheric clouds which may lead to depletion of the ozone concentration in the stratosphere, leading scientists at Bharati station feared that Montreal Accord has not succeeded to control emission of ozone depleting gases in the atmosphere.
103. The audio, which includes more than 1,000 separate data files, was captured in the early 1970s by the late Hetty van de Rijt. She recorded the various screams, barks, and how calls made by a group of chimps, including 17 youngsters, living in the Gombe National Park in Tanzania.
104. Sleep behavior is also known as a sleep disorder. People with sleep disorder often talk or walk in their sleep. They are not aware of what they are talking about or where are they going. There isn't any serious effects on the body in general but it may be connected to mental health. People with childhood traumas, unspeakable problem or depression are the ones with different sleep behavior. There isn't any specific cure for it yet as it's a short time disorder that heals with time. If it's not leaving the person and hurting in some way the person should see the doctor immediately.
105. Humans need to use energy in order to exist. So, it is unsurprising that the way people have been producing energy is largely responsible for current environmental problems. Pollution comes in many forms, but those that are most concerning, because of their impact on health, result from the combustion of fuels in power stations and cars.
106. In the photo, the wild cat's huge paws are clamped onto the side of the white safari Jeep in which Chappell was a passenger. Almost as tall as the Jeep on her hind legs, she appears to be forcing the muzzle into the back window.



107. Conservation scientists have long tried to map how much of the planet remains undegraded by human activity. Previous estimates using satellite imagery or raw demographic data found anywhere from 20 to 40 percent of the globe was free from obvious human incursions, such as roads, light pollution, or the gaping scars of deforestation. But an intact forest canopy can hide an emptied-out ecosystem below.
108. These decisions are highly nuanced. Of course, we use a lot of data to inform our decisions, but we also rely very heavily on iteration, research, testing, intuition, and human empathy. Now, sometimes the designers who work on these products are called "data-driven," which is a term that totally drives us bonkers. The fact is, it would be irresponsible of us not to rigorously test our designs when so many people are counting on us to get it right.
109. Artificial Neural Networks have recently become the state-of-the-art technique for crucial signal processing applications such as specific frequencies classification, structural health monitoring, diseases detection in power electronics circuitry, and motor fault detection. This is an expected outcome as there are numerous advantages of using an adaptive and compact deep counterpart, which particularly can be efficiently trained with a limited dataset of signals, besides requiring data transformation.
110. Biology is the natural science that studies life and living organisms, including their physical structure, chemical processes, physiological mechanisms, and evolution. Certain unifying concepts consolidate it into a single and coherent field that recognizes genes as the basic unit of heredity, and evolution as the engine that propels creation and extinction.
111. Social media are playing an increasingly important role as information sources for travelers. The goal of this study is to investigate the extent to which social media appear in search engine results in the context of travel-related



searches. It also provides evidence for challenges faced by traditional providers of travel-related information.

112. Long isolated from Western Europe, Russia grew up without participating in the development like the Reformation that many Russians' takings pride in their unique culture find dubious value. Russia is, as a result, the most unusual member of the European family, if indeed it is European at all. The question is still open to debate, particularly among Russians themselves.
113. For any marketing course that requires the development of a marketing plan, such as Marketing Management, Marketing Strategy and Segmentation Support Marketing, this is the only planning handbook that guides students through the step-by-step creation of a customized marketing plan while offering commercial software to aid in the process.
114. Blue is the most popular color. Food researchers disagree when humans searched for food, they learned to avoid toxic or spoiled objects, which were often blue, black, or purple. When food dyed, blue is served to study subjects, they lose appetite.
115. Surprisingly, despite what appear to be infinite variations, all difficult conversations share a common structure. When you're caught up in the details and anxiety of a particular difficult conversation, this structure is hard to see. But understanding that structure is essential to improve how you handle your most challenging conversations.
116. Food is one of the most important things you'll ever buy. And yet most people never bother to think about their food and where it comes from. People spend a lot more time worrying about what kind of blue jeans to wear, what kind of video games to play, what kind of computers to buy.
117. Astronomers discovered seven planets, roughly Earth-sized, orbiting a dwarf star some 380 trillion kilometers from our own. That is 40 light years away—



fairly close and within range of planned big telescopes. Scientists therefore think it offers the best chance yet to discover evidence of life, or why it hasn't evolved, beyond the solar system.

118. Different types of maternal homework assistance have a different impact on the child's way of completing school assignments in grades 2 to 4 of elementary school, according to a new study. Although all homework assistance presumably aims at helping the child, not all types of homework assistance lead to equally positive outcomes.
119. Fire crews have worked through the night trying to control a number of bush fires burning in Western Australia's southwest. The department upgraded the alert level from "watch and act" to "emergency" and advised residents to take necessary steps to ensure their safety. Conditions there have eased overnight and the spread of the blaze has slowed. The firefighting effort will be reassessed at first light.
120. The uniquely scented flavor of vanilla is second only to chocolate in popularity on the world's palate. It's also the second most expensive spice after saffron. But highly labor-intensive cultivation methods and the plant's temperamental life cycle and propagation mean production on a global scale is struggling to keep up with the increasing demand for the product.
121. This is what needs to happen on climate change: the world needs to put a price on carbon emissions and let the market respond. If politicians pretend this can be done without pain, it will probably result in another five to ten years of pretending to take action.
122. If bonus or "incentive pay" schemes work so well for senior executives and bankers, why does everyone not get them? After all, many jobs involve making important decisions or taking risks. Is there anything about corporate



decisions and financial risks that makes these categories of work special in terms of how they need to be incentivized and rewarded?

123. Pluto lost its official status as a planet yesterday, when the International Astronomical Union downsized the solar system from nine to eight planets. Although there had been a passionate debate at the IAU General Assembly Meeting in Prague about the definition of a planet, and whether Pluto met the specifications, the audience greeted the decision to exclude it with applause.
124. The core of the problem was the immense disparity between the country's productive capacity and the ability of people to consume. Great innovations in productive techniques during and after the war raised the output of industry beyond the purchasing capacity of U.S. farmers and wage earners.
125. Augustus was given the powers of an absolute monarch, but he presented himself as the preserver of republican traditions. He treated the Senate, or state council, with great respect, and was made Consul year after year. He successfully reduced the political power of the army by retiring many soldiers, but giving them land or money to keep their loyalty.
126. Using an X-ray laser, a research team has investigated how water heats up under extreme conditions. In the process, the scientists were able to observe water that remained liquid even at temperatures of more than 170 degrees Celsius. The investigation revealed an anomalous dynamic behavior of water, which is of fundamental importance for investigations of sensitive samples using X-ray lasers.
127. The slight decline in drug overdose deaths in 2018 coincides with Chinese regulations on the powerful opioid carfentanil, rather than the result of domestic U.S. efforts to curb the epidemic, a new analysis reveals. What many - including President Donald Trump - perceived as a decline in overdose deaths in 2018, appears to be a return to the historic exponential curve.



128. Researchers have found a way to convert the aromatic substance vanillin into a redox-active electrolyte material for liquid batteries. The technology is an important step towards ecologically sustainable energy storage.
129. New research shows that during the global financial crisis, workers who stayed in jobs did not reduce their working hours, despite the claims that cuts in hours have led to job losses. A study found that the life of people who stayed with the same employer remained relatively unchanged.
130. Most succulent plants are found in regions where there is little rainfall, dry air, plenty of sunshine, porous soils and high temperatures during part of the year. These conditions have caused changes in plant structures, which have resulted in greatly increased thickness of stems, leaves and sometimes roots, enabling them to store moisture from the infrequent rains.
131. All the works of art shown in this exhibition were purchased on a shoestring budget. The criteria that the curators had to follow were that works must be acquired cheaply, appeal to a broad range of tastes, and fit with unusual environments. Thus, many of our better-known modern artists are not represented.
132. In classes, your teachers will talk about topics that you are studying. The information that they provide will be important to know when you take tests. You must be able to take good written notes from what your teachers say.
133. Written examinations are a fact of life for most high school and university students. However recent studies have shown that this traditional form of assessment may not be an accurate indicator of academic performance. Tests have shown that many students experience anxiety during exam weeks which leads to poorer results. As a result, PTE PREPARATION UNIVERSITY ADMISSION VISA SOLUTIONS some learning institutions are replacing exams with alternative assessments such as group work and oral presentations.



134. How quickly is the world's population growing? In the United States and other developed countries, the current growth rate is very low. In most developing countries, the human population is growing at a rate of nearly 3 people per second. Because of this bustling growth rate, the human population is well on its way to reaching 9 billion within lifetime.
135. Some people object that in order for the eye to modify and still remain a useful instrument to its owner, many changes would have had to take place simultaneously. However, it is not necessary to suppose this if the modifications were extremely slight and gradual.
136. To work effectively with the heterogeneous student populations found in our schools, educators have the responsibility of acknowledging the cultural backgrounds of their students and the cultural setting in which the school is located in order to develop effective instructional strategies.
137. A young man from a small provincial town -- a man without independent wealth, without powerful family connections and without a university education -- moved to London in the late 1580's and, in a remarkably short time, became the greatest playwright not of his age alone but of all time. How was this achievement of magnitude made? How did Shakespeare become Shakespeare?
138. Training to become an actor is an intensive process which requires curiosity, courage and commitment. You'll learn how to prepare for rehearsal, how to rehearse and how to use independent and proactive processes to achieve your best work possible for stage and screen.
139. The brain is divided into two hemispheres, called the left and right hemispheres. Each hemisphere provides a different set of functions, behaviors, and controls. The right hemisphere is often called the creative side of the brain, while the left hemisphere is the logical or analytic side of the brain.



140. Another administration option is to bake marijuana at a relatively low temperature to kill any dangerous microorganisms and then allow that patient to eat it or drink it. Both of these methods of administration make smoking the drug unnecessary. However, criticism of medical marijuana has also been raised because as a natural plant, it cannot be patented and marketed by pharmaceutical companies and is unlikely to win widespread medical acceptance.
141. But on May 3, a couple of weeks later, Lincoln issued an executive order calling for 43,000 three-year volunteers for the army, and also increasing the size of the regular army and navy by 40,000 men. Both of these actions were in apparent violation of the constitution.
142. The emergence of information technology has created new products, processes and distribution systems. New products include the computer, the Internet and digital TV; new processes include Internet banking, automated inventory control and automated teller machines; and new distribution systems include cable and satellite TV.
143. To work effectively with the heterogeneous student populations found in our schools, educators have the responsibility of acknowledging the cultural backgrounds of their students and the cultural setting in which the school is located in order to develop effective instructional strategies.
144. Every morning, no matter how late he had been up, my father rose at 5:30, went to his study, wrote for a couple of hours, made us all breakfast, read the paper with my mother, and then went back to work for the rest of the morning. Many years passed before I realized that he did this by choice, for a living, and that he was not unemployed or mentally ill.
145. Legal writing is usually less discursive than writing in other humanities subjects, and precision is more important than variety. Sentence structure should not



be too complex; it is usually unnecessary to make extensive use of adjectives or adverbs, and consistency of terms is often required.

146. Long isolated from Western Europe, Russia grew up without participating in the development like the Reformation that many Russians' taking pride in their unique culture find dubious value. Russia is, as a result, the most unusual member of the European family, if indeed it is European at all. The question is still open to debate, particularly among Russians themselves.
147. It seems that language appeared from nowhere since no other species has anything resembling human language. However, other animals do possess basic systems for perceiving and producing sounds that enable them to communicate. These systems may have been in place before the appearance of language.
148. As we progress into the 21st century, communications are becoming faster and faster. Think of the millions of different media images you are bombarded with every day. It is as important now to be able to read and make sense of those images, as it has been to be able to read ordinary text.
149. Teenage girls are continuing to outperform boys in English while the gender gap in achievements in math and science has almost disappeared. The figures show that last year 80% of 14-year-old girls reached at least the expected level 5 in English, compared with 65% of boys. But in math, the girls are just 1% ahead of boys, while in science the difference is 2%.
150. Have you ever pictured a world without light? Just think how much we rely on man-made light sources in our lives. Without engineers, we wouldn't be able to live the way we do. No streetlights, no TV, no computer display, no house lights. Engineers design and build all these things, and they also design, build and run the electricity systems that power all these light sources.



151. All the works art shown in this exhibition were purchased on a shoestring budget. The criteria that the curators had to follow were that works must be acquired cheaply, appeal to a broad range of tastes, and fit with unusual environments. Thus, many of our better-known modern artists are not represented.
152. We all know about bacteria, viruses and microscopic protozoa. We can watch the way that these tiny agents move into our bodies and damage our organs, we have a growing understanding of how our body mounts defensive strategies that fight off these invaders, and have built some clever chemical that can help mount an assault on these bio-villains.
153. This flu season is a particularly sever one, and it's not over yet-health official say flu activity will likely remain elevated for at least several more weeks. But if you already caught the flu, are you in the clear for the rest of the season?
154. Normally, if we spin around in an office chair and suddenly stop, we feel like we're still moving. That's because fluid in the inner ear responsible detecting movement continues to whirl around due to inertia, making your brain think it's still in motion. In this activity you will explore the reaction that creates these tasty, toasty treats and experiment with speeding up and slowing down the process.
155. When we put toast in the toaster or add marshmallows to the top of our sweet potatoes for a baked holiday dish we expect them to turn brown and to develop a sweet, caramelized flavor. Although we expect it to happen, do you know why certain foods take on these new colors and flavors as they are toasted?
156. Non-invasive brain stimulation is having its heyday, as scientists and hobbyists alike look for ways to change the activity of neurons without cut cutting into the brain and implanting electrodes. Next, the researchers



wanted to figure out how much current they needed to apply to the human scalp to produce those electrical fields inside the brain.

157. Scientists have recommended actions the government of Madagascar's recently elected president, Andrey Rajoelina should take to turn around the precipitous decline of biodiversity and help put Madagascar on a trajectory towards sustainable growth. Madagascar's protected areas, some of the most important for biodiversity in the world, have suffered terribly in recent years from illegal mining, logging, and collection of threatened species for the pet trade.
158. Every morning, no matter how late he had been up, my father rose at 5:30, went to his study, wrote for a couple of hours, made us all breakfast, read the paper with my mother, and then went back to work for the rest of the morning. Many years passed before I realized that he did this by choice, for a living, and that he was not unemployed or mentally ill.
159. Australia has one of the world's most important mining industries. It is a major exporter of coal, iron ore, gold and copper and is self-sufficient in all minerals bar petroleum. Since the first discoveries, the coal in 1798, mineral production has risen every year in the decade 1992 it doubled.
160. It was found that while many companies express interest in Jacobson's use case approach, actual scenario usage often falls outside what is described in textbooks and standard methodologies. Users, therefore, face significant scenario management problem not yet addressed adequately in theory or practice and are demanding solutions to these problems.
161. The current measure has remained virtually unchanged over the past 30 years. Yet during that time, there been marked changes in the nation's economy and society and in public policies that have affected families' economic well-being, which is not reflected in the measure.



162. The latest scientific evidence on the nature and strength of the links between diet and chronic diseases is examined and discussed in detail in the following sections of this report. This section gives an overall view of the current situation and trends in chronic diseases at the global level. In spite of the spectacularly high quality of life for the vast majority of the people who live in the European Union, its inhabitants seem obsessed with the region's relative decline in the world. Slow economic growth rates and high unemployment have reinforced the impression that Europe is unhappy with today and unsure of tomorrow.
163. If countries can specialize in certain goods, they can benefit from economies of scale lower average cost. This is especially true in the industry with high fixed costs or that require a high level of investment. The benefits of the economy of scale will ultimately lead to lower prices for consumers and greater efficiency for exporting firms.
164. But on May 3, a couple of weeks later, Lincoln is sedan executive order calling for 43,000 three-year volunteers for the army, and also increasing the size of the regular army and navy by 40,000 men. Both of these actions were in apparent violation of the constitution.
165. A constellation is an area on the celestial sphere in which a group of stars forms an imaginary outline or pattern, typically representing animal, mythological person or create, or an inanimate object.
166. To work effectively with the heterogeneous student populations found in our school's audience have the responsibility of acknowledging the cultural backgrounds of their students and the cultural setting in which the school is located in order to develop effective instructional strategies.
167. The emergence of information technology has created new products, processes and distribution systems. New products include the computer, the



internet and digital TV; new processes include internet banking, automated inventory control and automated teller machines; and new distribution systems include cable and satellite TV.

168. The researchers think that this kind of coordination might have evolved because woodpeckers invest so much time and energy carving out their nest hole in a tree. They were kicked out and had to start over, they might not get a chance to reproduce and fledge their offspring.
169. Abstraction is an important layer of computer because people cannot do anything on computers without symbolic system. Language is a classical symbolic system. People use sign language and movements when they do something at the same time. For example, people asked for help by waving hands when they repelled rhinoceros at the same time. Thus, human can use hands to communicate when they do things simultaneously.
170. Thus, a country might possess a sizeable rural population, but have an economic system in which the interests of the voters were predominantly related to their incomes, not to their occupations or location; and in such a country the political system would be unlikely to include an important agrarian party.
171. Today, telecommunication is widespread and devices that assist the progress are common in many parts of the world. There is also a vast array of networks that connect these devices, including computer, telephone and cable networks.
172. While apes and monkeys are both primates, and are part of the same primate suborder, there are lots of differences between them. There are also lots of other sorts of primates. The distinction between different primate groups is based on physical characteristics and evolutionary ancestry. - > 75% close to this but they replaced monkey with chimps.



173. A guild an association of artisans or merchants who oversee the practice of their craft/trade in a particular area. The earliest types of guild formed as a confraternities of tradesmen. They were organized in a manner something between a professional association, a trade union, a cartel, and a secret society.
174. Sir Charles Spencer Chaplin was an English comic actor, filmmaker, and composer who rose to fame in the era of silent film. He became a worldwide icon through his screen persona, "The Tramp", and is considered one of the most important figures in the history of the film industry. His career spanned more than 75 years, from childhood in the Victorian era until a year before his death in 1977, and encompassed both adulation and controversy.
175. A national study into fraud by bookkeepers employed at small and medium-sized businesses has uncovered 65 instances of theft in more than five years, with more than \$31 million stolen. Of the cases identified by the research, 56 involved women and nine instances involved men. However, male bookkeepers who defrauded their employer stole three times, on average, the amount that women stole.
176. Along with customary classes on subjects such as finance, accounting, and marketing, today's MBA students are enrolling on courses for environmental policy and stewardship. Indeed, more than half of business schools require a course in environmental sustainability or corporate social responsibility, according to a survey of 91 US business schools, published in October 2005.
177. Tesla's theoretical work formed the basis of modern alternating current electric power systems. Thomas Edison promised him almost one million dollars in today's money to undertake motor and generator improvement. However, when Tesla asked about the money, Edison reportedly replied



"Tesla, you don't understand our American humor." The pair became arch-rivals.

178. First-year university students have designed and built a groundbreaking electric car that recharges itself. Fifty students from the University of Sydney's Faculty of Engineering spent five months cobbling together bits of plywood, foam and fiberglass to build the ManGo concept car. They developed the specifications and hand built the car. It's a pretty radical design: a four-wheel drive with a motor in each wheel.
179. Few things in the world produce such amazement as one's first of glimpse of the Grand Canyon; it took around more than 2 billion years to create this vast wonder - in some places. 17 miles wide, largely through the relentless force of Colorado River, which runs 277 miles along its length, a mile beneath its towering rims.
180. Australians do speak English. However, for some tourists and travelers, it can be difficult to understand the slang. Also, the links between Australian and American English were seen to be very tenuous. At least some colloquialisms in Australian English do not exist in other types of English.
181. The elephant is the largest living land mammal. During evolution, its skeleton has greatly altered from the usual mammal, designed for two main reasons. One is to cope with the great weight of huge grinding cheek teeth and elongated tusk, making the skull particularly massive. The other is to support the enormous bulk of such a huge body.
182. Traditional divisions of domestic work are understood to persist because of the strong association of the home with femininity and paid work with masculinity - to challenge who does what in the home is arguably tantamount to challenging what it is to be a woman or a man.



183. When we recycle, used materials are converted into new products, reducing the need to consume natural resources. If used materials are not recycled, new products are made by extracting fresh, raw material from the Earth, through mining and forestry. Recycling helps conserve important raw materials and protects natural habitats for the future.
184. The legislation, which Democrats hope to push through the Senate by the weekend, remains among the largest federal relief packages in modern American history. It would deliver hundreds of billions of dollars for vaccine distribution, hospitals, state and local governments, and families struggling to recover from the economic toll of the coronavirus pandemic.
185. Charlie Chaplin and his brother Sydney were placed in an orphanage at a very early age. Becoming a vaudeville performer, he joined Fred Karno's company in 1906. He made his film debut in *Making a Living* (1914) and introduced the famous seedy and soft-hearted gentleman tramp routine, which became his hallmark. Numerous films for various studios brought him world fame, all based on his mastery of pathos and slapstick acrobatics.
186. Participating regularly in physical activity has been shown to benefit an individual's health and wellbeing. Regular physical activity is important in reducing the risk of chronic diseases, such as heart disease and stroke, obesity, diabetes, and some forms of cancer. The National Physical Activity Guidelines for Adults recommends at least 30 minutes of moderate-intensity physical activity, preferably every day of the week, to obtain health benefits.
187. Prolonged exposure to loud noise alters how the brain processes speech, potentially increasing the difficulty in distinguishing speech sounds, according to neuroscientists. Exposure to intensely loud sounds leads to permanent damage of the hair cells, which act as sound receivers in the ear. Once



damaged, the hair cells do not grow back, leading to noise induced hearing loss.

188. English colonies emerged along the eastern seaboard for a variety of reasons. People, primarily men, originally migrated to Virginia to find gold and silver to make a quick profit. After it became evident that there were no precious metals in the area, men came to Virginia to start cultivating cash crops like tobacco.
189. Surgical site infections are caused by bacteria that get in through incisions made during surgery. They threaten the lives of millions of patients each year and contribute to the spread of antibiotic resistance. In low- and middle-income countries, 11% of patients who undergo surgery are infected in the process.
190. We understand the importance of supporting and restoring biodiversity, and we are teaming up with the world's leading molecular biologists, technologists, conservation biologists, conservation organizations, ethicists, and thought leaders to call for 'Intended Consequences' to help us safely use all of the available tools that can provide the advantage we need to turn the tide on species loss.
191. Nell and his colleagues took to the Everglades at night, hunting for gators near and far from nests.' You have to use a spotlight and you see the little demon eyes shining out of the marsh.' They lassoed the gators, pulled them into the airboat, and took blood samples and body measurements.
192. The scientists say this is the first documented instance of nectar that attracts a particular animal assistant being produced outside of a nectary. In fact, the observed nectar bleeding might actually be an early system that evolved to include the nectaries found in other plants today.



193. The sad truth is that happy sounds are infectious. Now comes research that at least partly explains why? It was published this week in the journal of neuroscience. A British research team played various sounds including laughter to people who are having their brain scanned by a functional MRI machine. All the sounds activated the premotor cortical region of the brain, that area prepares facial muscles to move.
194. Trade unions originated in Europe during the Industrial Revolution. Because of the machinery that had become commonplace, skilled labor became less in demand so employers had nearly all of the bargaining power. Employers mistreated the workers and paid them too little for the work they did. Trade unions were organized that would help in the improvement of working conditions.
195. The transition from the 'brick and mortar structure to 'click and order' model started with the emergence of Information Technology and its use in the financial sector. The use of technology in banking has resulted in availability of multiple delivery channels like ATMs, telebanking, internet banking, and mobile banking.
196. As introverts are thinking, they reach back into long-term memory to locate information. An introvert will often compare old and new experiences when making a decision, which slows the processing down but leads to carefully thought-out decisions. This means that introverts have an active dialogue with themselves and usually walk around with many thoughts in their minds.
197. A study found that the research funded by the soft drinks industry have different results from research funded by other sources and went on to suggest that there may have been biased by the research itself. The whole point of the scientific methods is to ensure the research results are not influenced by the source of funding.



198. In 1861, Matthew Brady, a well-known portrait photographer, approached President Lincoln requesting permission to move freely about the country photographing the Civil War. Lincoln granted him permission to travel anywhere with the Union armies, and his record of this conflict brought home to millions the horrors of war.
199. The southerners did not accept Lincoln as a president because of certain reasons, based on historical grounds. Southerners wished to protect their rights in the government and become more independent from the north. They considered presidential elections to be unfair. Moreover, they thought that their own rights will be ignored and limited. All this caused the separation of the southern states and marked the beginning of the Civil War.
200. Tasmania is a large and relatively sparsely populated island off the south coast of Australia. The island is of particular interest to natural scientists, who go there to research the unique wildlife. Tasmania has, for example, twelve species of bird that are not found anywhere else in the world.
201. The transition from the 'brick and mortar' structure to 'click and order' model started with the emergence of Information Technology and its use in the financial sector. The use of technology in banking has resulted in availability of multiple delivery channels like ATMs, tele-banking, internet banking, and mobile banking.
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203. Aboriginal people are believed to have arrived as early as 60,000 years ago, and evidence of Aboriginal art in Australia dates back at least 30,000 years.



Several states and territories had their origins as penal colonies, with the first British convicts arriving at Sydney Cove in 1788.

204. Perhaps the most measurable benefit of the program has been the opportunity to meet in small groups. Something that is difficult to arrange such a desperate organization. Many officers would have to work together for thirty years but would not know other's strengths and weaknesses.
205. Exhilarating, exhausting and intense. There are just some of the words used to describe doing an MBA. Everyone's experience of doing an MBA is, of course, different through denying that it's hard and a demanding work whichever course you do. MBA is one of the fastest growing areas of studying in the UK so that must be a sustainable benefit against form in one pain.
206. How quickly is the world's population growing? In the United States and other developed countries, the current growth rate is very low. In most developing countries, the human population is growing at a rate of 3 people per second. Because of this bustling growth rate, the human population is well on its way to reaching 9 billion within a lifetime.
207. Teenage girls are continuing to outperform boys in English while the gender gap in achievements in math and science has almost disappeared. The figures show that last year 80% of 14-year-old girls reached at least the expected level 5 in English, compared with 65% of boys. But in math, the girls are just 1% ahead of boys, while in science the difference is 2%.
208. Certainly, one of the most important values of literature is that it nourishes our emotional lives. An effective literary work may seem to speak directly to us especially if we are ripe for it. The inner life that good writers reveal in their characters often gives us glimpses of some portion of ourselves. We can be moved to laugh, cry, tremble, dream, ponder, shriek, or rage with a character by simply turning the page instead of turning our lives upside down.



209. Introvert tends to recharge by spending time alone. They lose energy from being around people for a long period of time, particularly large crowds. Extroverts, on the other hand, gain energy from other people. Extroverts actually find their energy is sapped when they spend too much time alone. They recharge by being social.
210. Although Botswana's economic outlook remains strong, the devastation that AIDS has caused threatens to destroy the country's future. In 2001, Botswana had the highest rate of HIV infection in the world. With the help of international donors, it launched an ambitious national campaign that provided free antiviral drugs to anyone who needed them, and by March 2004, Botswana's infection rate had dropped significantly.

Gurully



Repeat Sentence

1. It is of the utmost importance that you follow the ethical guidelines.
2. When I study, I will underline all the main points in my notes.
3. It seems that science can satisfactorily explain why the universe still exists.
4. The bird was fluttering its wings during the rain.
5. The subject is complex and difficult to explain.
6. In your introduction, show you understand the question in no more than four sentences.
7. Universities play major roles in students' lives.
8. Will those happy days ever be forgotten by you?
9. She told the faculty to be very supportive.
10. You need to read the chapter before the management class.
11. A very basic feature of computing is counting and calculating.
12. All students must return the books to the college library before the end of the term.
13. Note that the deadline of the submission of proposals has been extended for a week.
14. Tuition fees will vary according to the field of study.
15. The current labor force is more competitive than it has been for a long time.
16. Foods containing overabundant calories supply little or no nutritional value.
17. Newspapers around the country are reporting the stories of the president.
18. I am available this Thursday afternoon.
19. The department determines whether or not the candidates pass.
20. Today's lecture is canceled because the lecturer is ill.
21. Social work is not the only subject in sociology.



22. Collaboration is a feature of a successful company.
23. A man who suffered serious brain damage during an operation is suing the hospital.
24. To take this course students should have basic subject knowledge.
25. Will those happy days ever be forgotten by you?
26. Telecommunication is based on the array of networks.
27. My favorite sports are soccer, tennis and basketball.
28. Students will need to be in the lecture this Thursday.
29. Professor Tim Lee invented World Wide Web.
30. Application forms for sharing accommodations must be completed two months in advance.
31. Student's past education and experience are vital.
32. Essays and assignments should be submitted to the department office before the deadline.
33. The contemporary literature works have been broadened and extended through interpretation.
34. A computer virus destroyed all my files.
35. A lot of agricultural workers came to the east end to look for alternative work.
36. A periodical is a publication that is issued regularly.
37. A preliminary bibliography is due the week before the spring break.
38. A study skill seminar is on for the students who require assistance.
39. A thorough bibliography is needed at the end of every assignment.
40. All essays and seminar papers submitted must be emailed to your tutor. .
41. All the assignments should be submitted by the end of this week.
42. Anyone who has a problem with their accommodation should speak to the welfare officer.
43. Being a vegan means not consuming any animal product.



44. Conferences are always scheduled on the third Wednesday of the month.
45. During the next few centuries, London became one of the most powerful and prosperous cities in Europe.
46. African elephant is the largest living land mammal in the world.
47. Even with a permit, finding a parking spot on campus is almost impossible.
48. I will be in my office every day from ten to twelve.
49. I've got a tutorial in an hour and I haven't had any time to prepare for it.
50. If you forget your student number, you need to contact Jenny Brice.
51. Meeting with mentors could be arranged for students who need additional help.
52. Meteorology is a detailed study of earth's atmosphere.
53. Most assignments need to be submitted on the same day.
54. To get further extension, you need to call the education executive on .
55. In this library, reserve collection books can be borrowed for up to three hours.
56. The residence hall is closed prior to the academic building closing time at the end of the semester.
57. She is an expert in the eighteenth century French literature.
58. Students are so scared of writing essays because they have never learned how.
59. The course comprises twenty hours of lectures, seminars, and tutorials per week.
60. The clear evidence between brain events and behavioral events is always fascinating.
61. The contest includes both land living history and the human history.
62. The first few sentences of an essay should capture the reader's attention.
63. The medical center is located near the supermarket on North Street.
64. Reserve collection of books can be borrowed for up to three hours.



65. Every year, students pass biology course easily.
66. I didn't understand the author's point of view on immigration.
67. I found a large rock and I broke through the basement window.
68. If you forgot your student number, you should contact Jenny Brice.
69. In English, the month of the year is always capitalized.
70. In Europe, the political pressure is similar regarding globalization.
71. It is important to take gender into account when discussing the figures.
72. John went rushing off down the corridor.
73. Meteorology is a detailed study of earth's atmosphere.
74. No more than four people can be in the lab at once.
75. On this project, you will be asked to work as a group of three.
76. She was always here, but today she is missed.
77. Students must observe lab safety regulations at all time.
78. Students should take advantage of the online resources before attending the lecture.
79. The agricultural sector in that country has been heavily subsidized.
80. The bookshop is located at the north of main campus.
81. The clear evidence between brain events and behavioral events is fascinating.
82. The lecture tomorrow will discuss the educational policies in the United States.
83. The Psychology Department is looking for volunteers to be involved in research projects.
84. The research paper should begin with a thorough review of the literature.
85. The seminar on writing skills has been cancelled.
86. The thoughts never cross my mind.
87. There is no entrance fee for tonight's lecture.
88. There is varying plagiarism across different university departments.



89. There will be a guest lecturer visiting the psychology department next month.
90. This lecture was meant to start at 10.
91. Try to explain how your ideas are linked so that there is a logical flow.
92. You must take 3 core and 2 elective courses in this semester.
93. Our class is divided into two groups. You come with me, the others stay here.
94. In our city, students have access to thirteen college libraries.
95. Please sort and order the slides of the presentation according to topic and speech time.
96. Hypothetically, insufficient mastery in the areas slows future progress.
97. Please explain what the author means by sustainability.
98. You can retake the module if your marks are too low.
99. The lecture management in Japan will take place in the week seven.
100. During that period, heavy industry grew rapidly in the north of the country.
101. Higher fees cause the student to look more critically at what universities offer.
102. She doesn't even care about anything but what is honest and true.
103. The study of archaeology requires intensive international fieldwork.
104. That country's economy is primarily based on tourism.
105. Leading scientists speculate that numerous planets could support life forms.
106. He is almost never in his office.
107. Chapter one provides the historical background to the topic.
108. The US ranks twenty-second in foreign aid, given it as a percentage of GDP.
109. The verdict depends on which side was more convincing to the jury.
110. Anatomy is the study of internal and external body structures.
111. The tutor is there for help, so do ask if you don't understand anything.
112. To understand its entity, we need to go back to its origin.
113. Interpreters are not readily available in this department.
114. I was overwhelmed with too much irrelevant information.



115. I could not save my work as my computer got crashed.
116. People with an active lifestyle are less likely to die early or to have a major illness.
117. The first person in space was from the Soviet Union.
118. Basketball was created in 1891 by a physician in physical structure.
119. The program depends entirely on private funding.
120. There will be open book exams on Monday the 28th.
121. In consultation with your supervisor, your thesis is approved by the faculty committee.
122. Many health workers think that pensioners are too old to understand.
123. Many students are so scared of writing essays, because they never learned how.
124. A demonstrated ability to write clear, correct and concise English is bigotry.
125. Residence Hall is closed prior to the academic building closing time in the semester.
126. The library is located at the other side of the campus behind the student center.
127. A preliminary bibliography is due the week before the spring break.
128. Answering such a complex question with a simple yes or no is absolutely impossible.
129. A periodical is a publication that is issued regularly.
130. New York City is famous for its ethnic diversity.
131. The mismatch between the intended and reported uses of the instrument has become clear.
132. Students can get access to computers on a daily basis.
133. Professor Smith will be late for today's lecture.



134. The United Kingdom is a constitutional monarchy and parliamentary democracy.
135. We will discuss these two pictures in next lecture.
136. We are not going to accept the assignment after the due date on Friday.
137. The student welfare officer can help with questions about exam techniques.
138. A lot of agricultural workers came to the East End to look for alternative work.
139. Knife and fork should be placed next to the spoon on the edge of the table.
140. This part of the story is the story of my father.
141. Make sure you correctly cite all your sources.
142. Extra seminars will be scheduled to assist you with revision.
143. I can't afford to take a gap year unless I can get a job and save up.
144. The small Indian island is a land of forests, valleys and snowy islands.
145. I could not save my work as my computer crashed.
146. We are delighted to have Professor Robert to join our faculty.
147. You should include your name and identification number in the registration form.
148. Biographical information should be removed prior to the publication of the results.
149. All sources of materials must be included in your bibliography.
150. There is a range of housing options near the university.
151. Globalization has been an overwhelming urban and urbanization phenomenon.
152. We want to attract the very best students regardless of their financial circumstances.
153. I can't attend the lecture because I have a doctor's appointment.
154. Newspapers across the country have been reporting stories of the president.
155. Even with the permit, finding a parking spot on campus is almost impossible.



156. The verdict depends on which side is more convincing to the jury.
157. Unfortunately, the two most interesting economic electives clash with my timetable.
158. To answer such a complex question with a simple yes or no is absolutely impossible.
159. The older equipment has been put at the back of the building.
160. Being a vegan means not consuming any animal product.
161. We must put great care when analyzing data.
162. All undergraduate students should participate in the seminar.
163. Global warming is a threat to economic growth.
164. Experience would be an advantage for this managerial role.
165. Cells are the basic building blocks of all animals and plants.
166. Until you complete the form, you cannot attend.
167. Australia is the first AIDS free country in the world.
168. You cannot leave the examination center until you complete the form.
169. Parking permits can be collected through the student service office.
170. Introduce your staff thoughtfully into all aspects of the unit.
171. Don't hesitate to email me if you have any questions
172. Please don't forget to check your email for the updates of the week.
173. The library is located on the north side of the campus.
174. Tuesday sessions will last for approximately two hours.
175. If you need any help let me know because I am here.
176. His objection to include scientific evidence has brought a lot of criticisms to him.
177. Today, I'd like to talk a little bit about the other theories that can explain the variations in climate.
178. Library timings are between four to ten, and you can register yourself online.



179. Students are afraid of writing an essay, because they have learned nothing about it
180. It is very important to wear masks during this pandemic.
181. Many industries have moved to the countryside where manufacturing costs are lower.
182. Read the fitness center instructions before attempting to use the equipment.
183. Proficiency in a foreign language may be demonstrated by assessment.
184. Our tutorial will take place on the second floor in room one.
185. My laptop has crashed and cannot save any file.
186. The translator is not available in our department.
187. Contemporary critics dismissed his idea as eccentric.
188. I'm glad you arrived here with safety.
189. Robert Frost thinks the rural area is livable for people in New England.
190. There are a range of housing options near university students.
191. Most of the lectures begin promptly, so do not be late.
192. The result of the study will be published next month.
193. The trip for the professional training will start soon, so pack the items before we leave.
194. Lots of students had money and passports stolen especially at night.
195. To start your visit, I'm just going to give you a brief account of the history of the museum.
196. There are several reasons for this lack of interest in corporate crime, compared with other types of crime.
197. The gap between the rich and the poor was not decreased rapidly as expected.
198. Every carmaker in Europe has sort of been on the blocks because of their dependence on diesel.



199. I think of those leaders who inspire us to go beyond the call of duty.
200. People tend to be least happy in middle age
201. The burning of fossil fuels leads to pollution and global warming.
202. Please read the first five chapters to prepare for next week's tutorial.
203. Ideally, free trade is beneficial to both trading partners.
204. Your task is to create the demand for the product.
205. Our group meeting will be held tomorrow in the library conference room.
206. The curriculum is described in a course syllabus.
207. Good research presents many benefits to the real people.
208. Please make sure that you collect all of your belongings and take them with you.
209. 39.5% California residents speak a language other than English at home.
210. 39.5% California residents don't speak English at home.
211. Remember to sign the attendance register before leaving the lecture hall.
212. The real reason for global hunger is not the lack of food, but poverty.
213. The original Olympic Games were celebrated as religious festivals.
214. She has been in the library for a long time.
215. Even with the permit, finding a parking spot on campus is still impossible.
216. All the assignments should be submitted by the end of this week.
217. Unfortunately, the two most interesting economic electives clash on my timetable.
218. The new hypothesis needs to be tested with a new controlled experiment.
219. We didn't mean to ask him to do it because he cannot manage it.
220. Expertise in particular areas distinguishes you from other graduates.
221. The country's economy is primarily based on tourism.
222. Make sure the Financial Director knows the full details of the Pay Agreement.
223. We will need to make sure the school principal knows about the changes.



- 224. Many undergraduate students go back home and stay with their parents after graduation.
- 225. All old university buildings are still in use.
- 226. Every year, students pass the biology course easily.
- 227. The author expressed an idea that modern readers invariably cannot accept.

A large, semi-transparent watermark of the Gurully logo is centered on the page. It features a light blue chevron shape above the word "Gurully" in a light blue, sans-serif font.



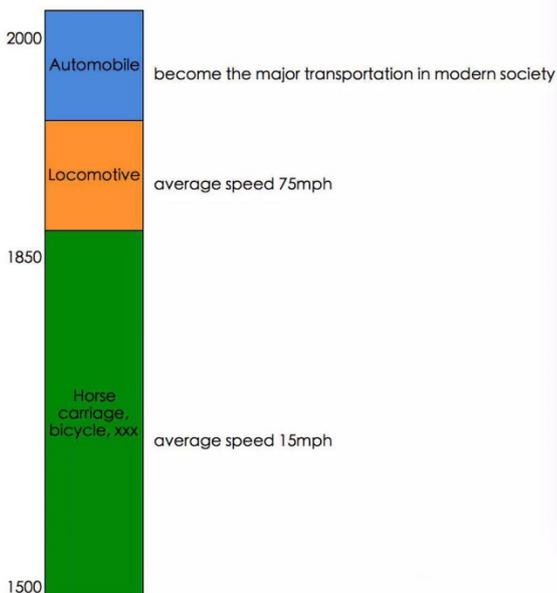
Describe Image

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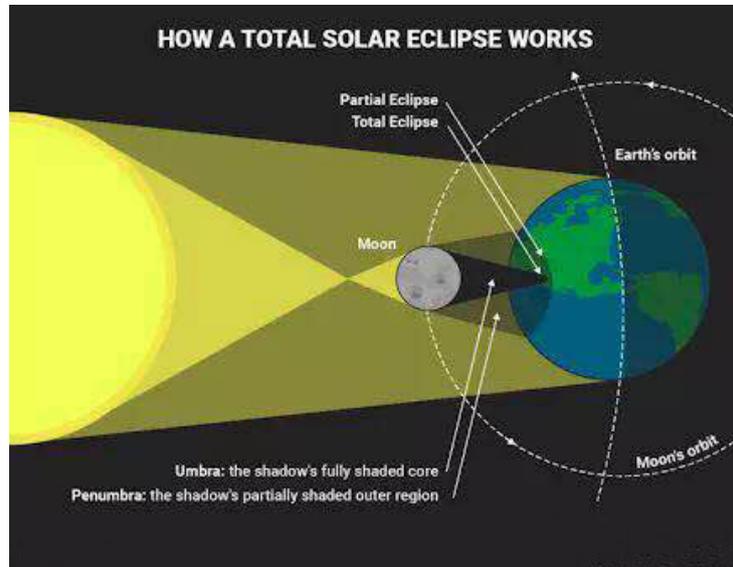
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Major transportation modes in the past





3



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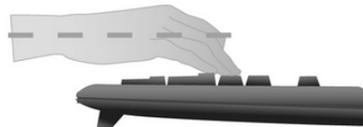
RIGHT!



WRONG!



RIGHT!



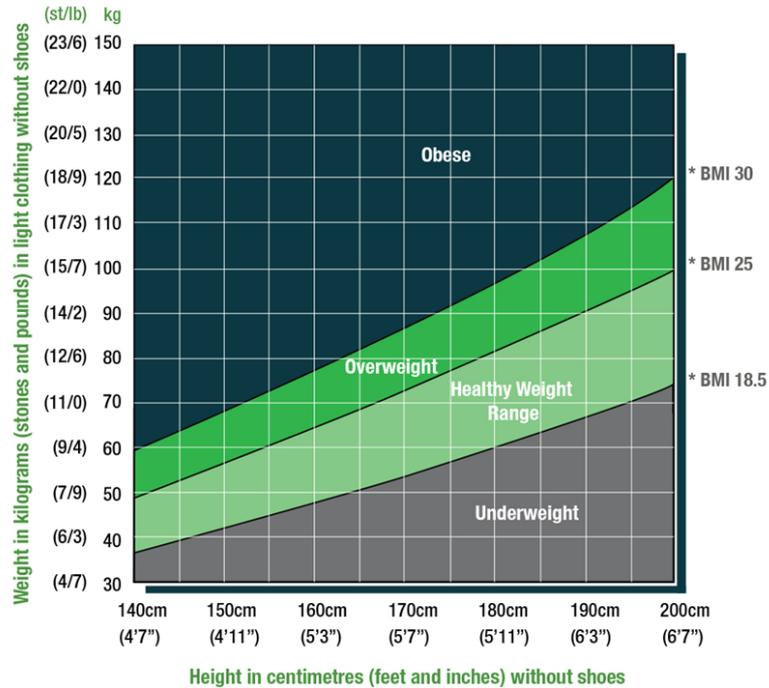
WRONG!



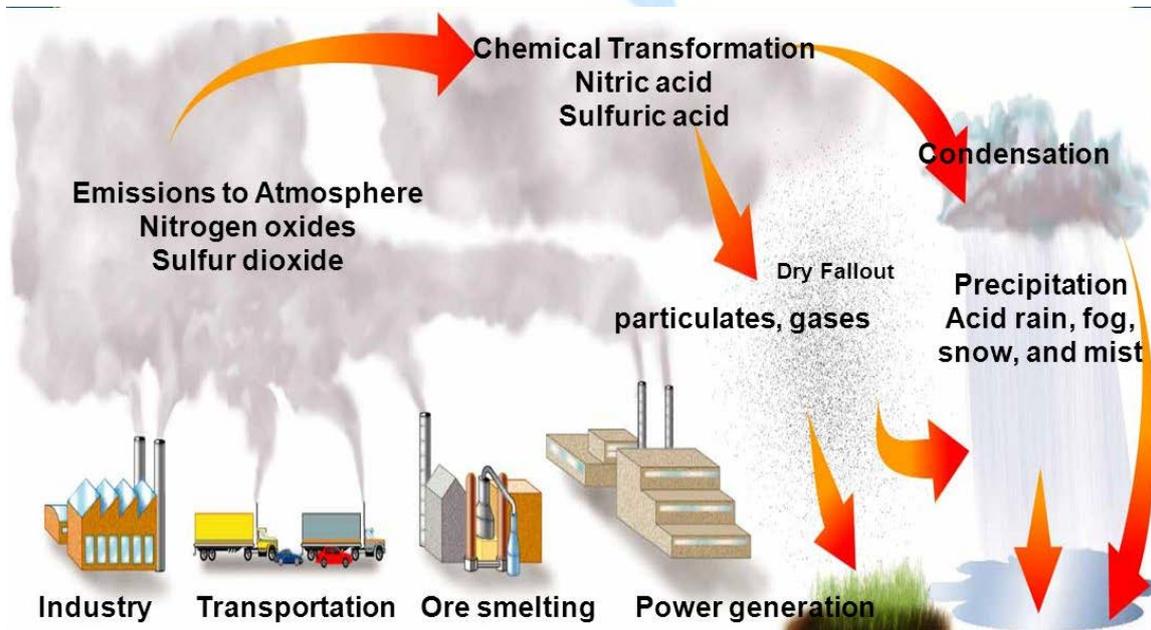


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Aim for a healthy weight: BMI chart for adults

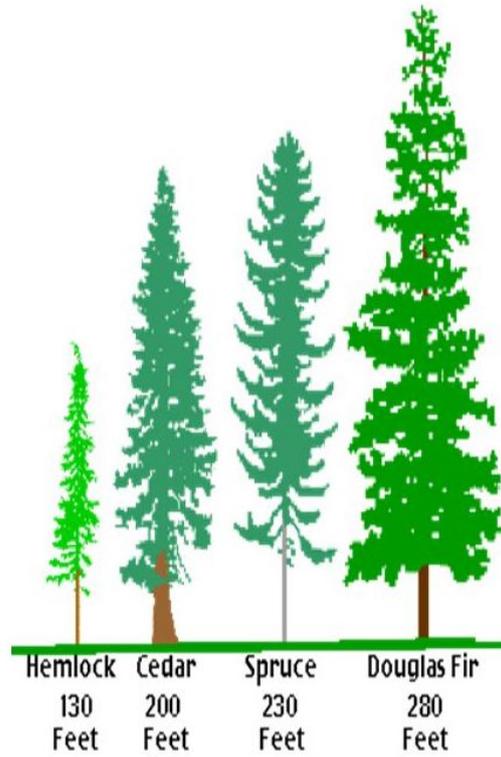


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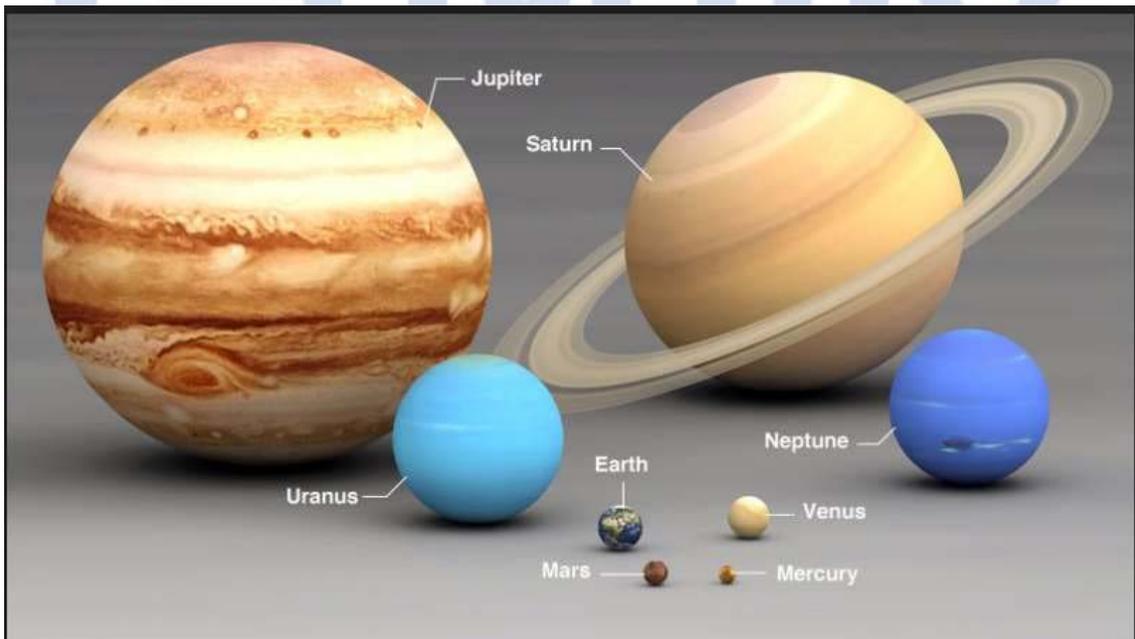




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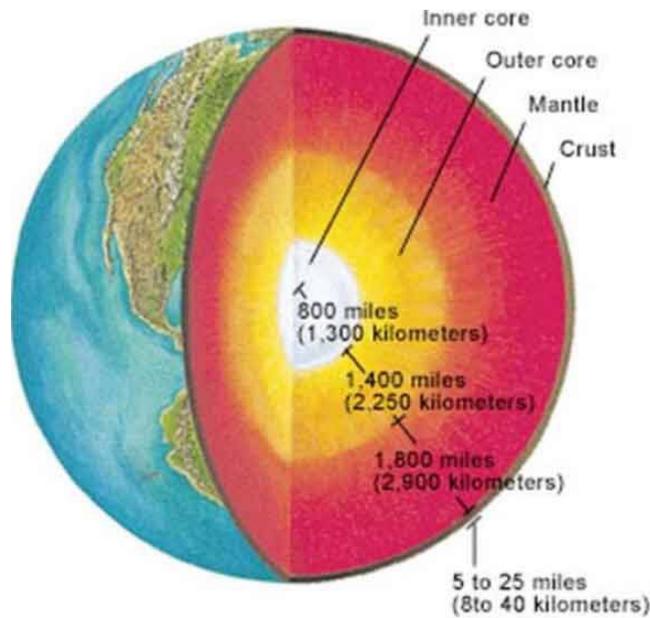


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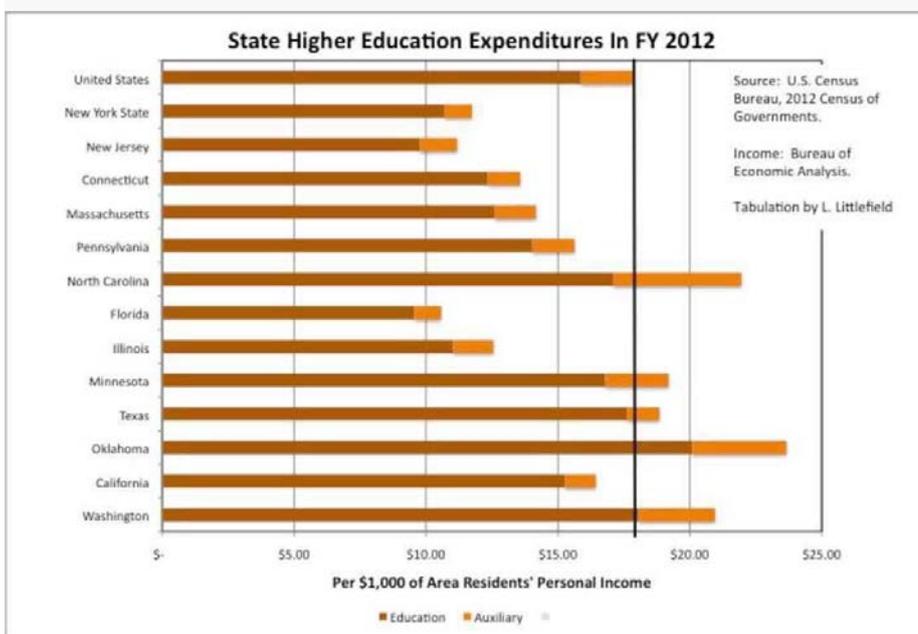




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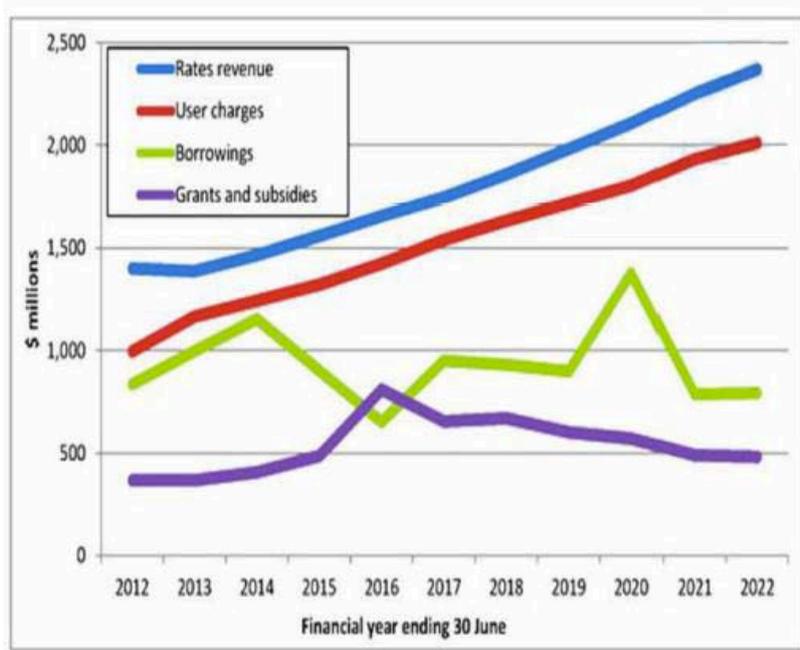
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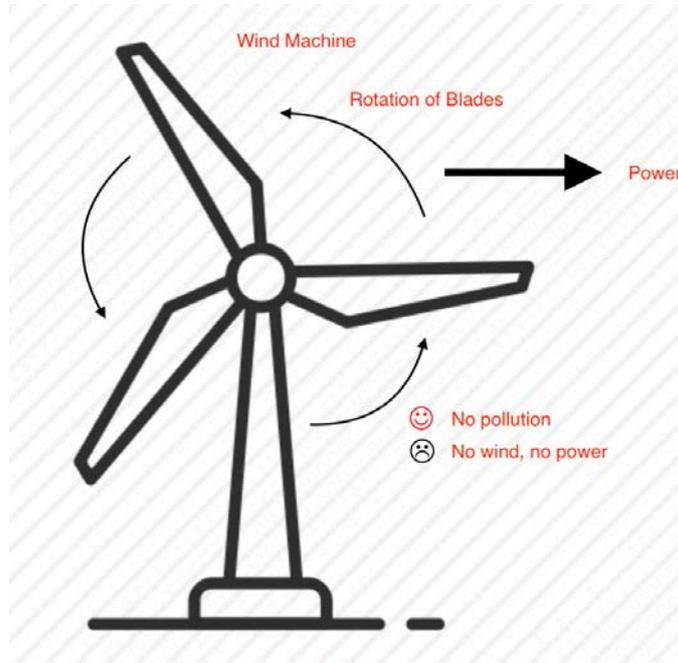


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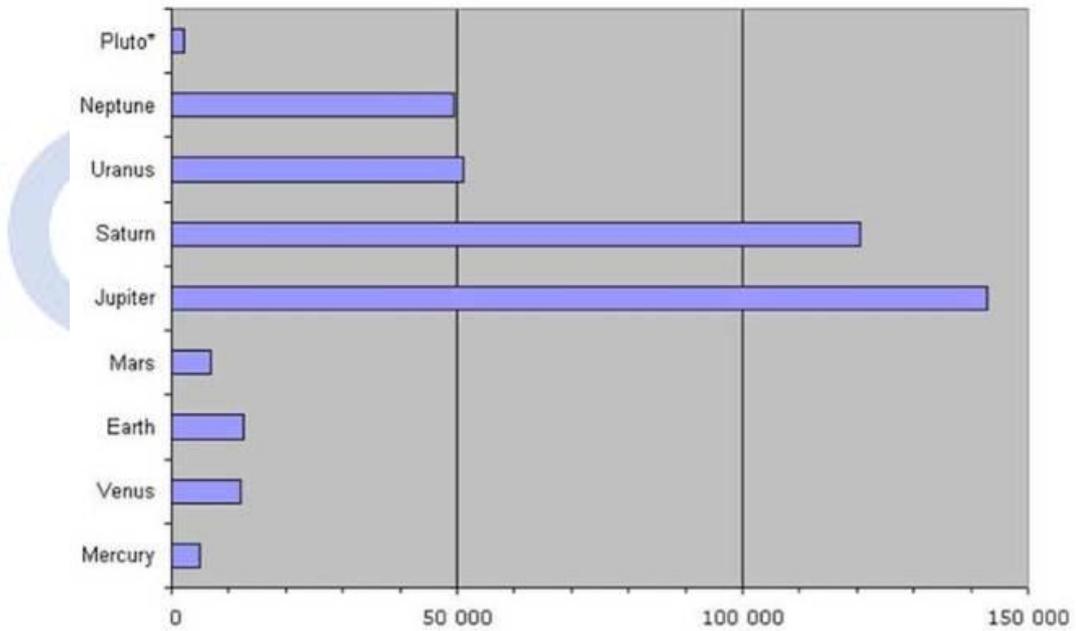


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Diameter (km)

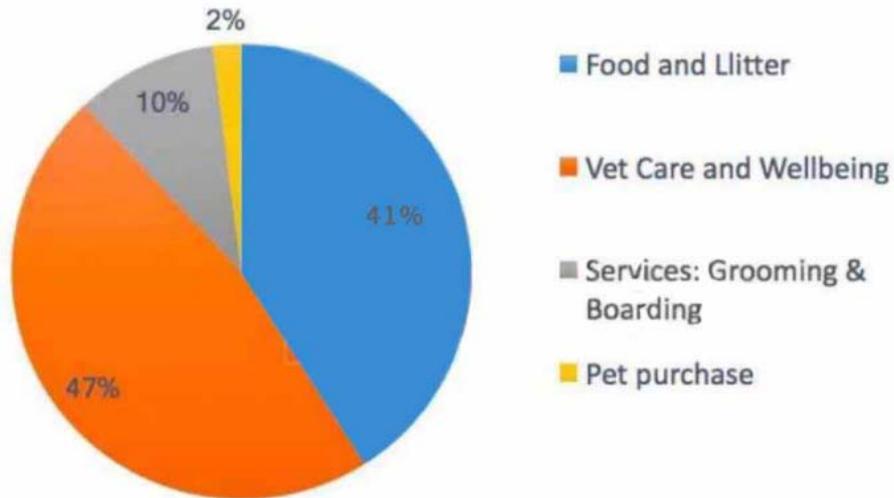
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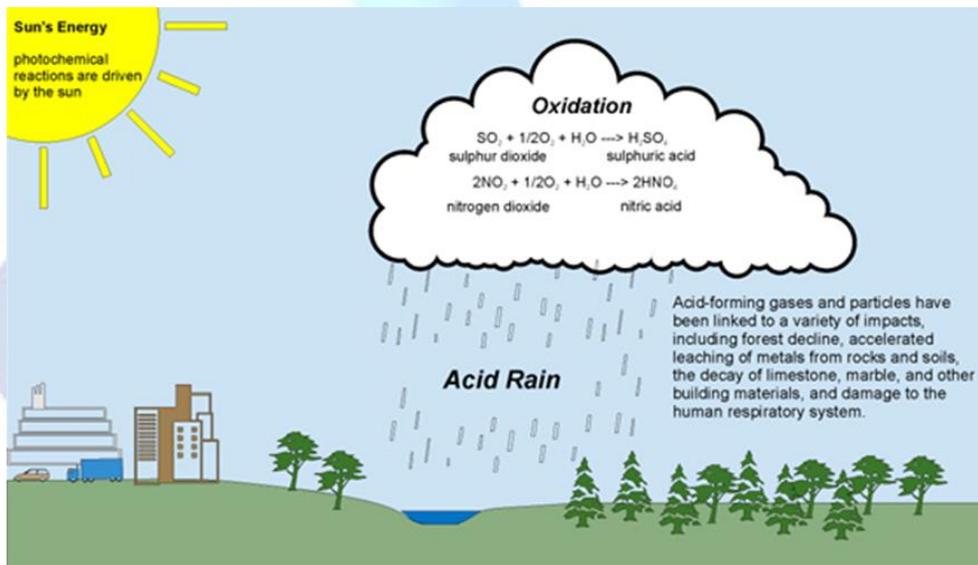


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Pet Expenditure in US

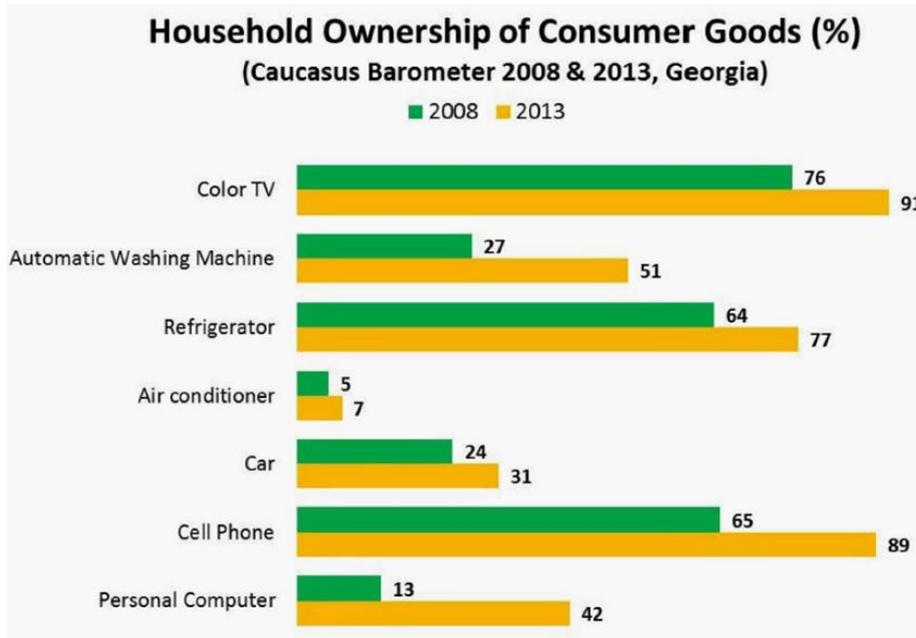


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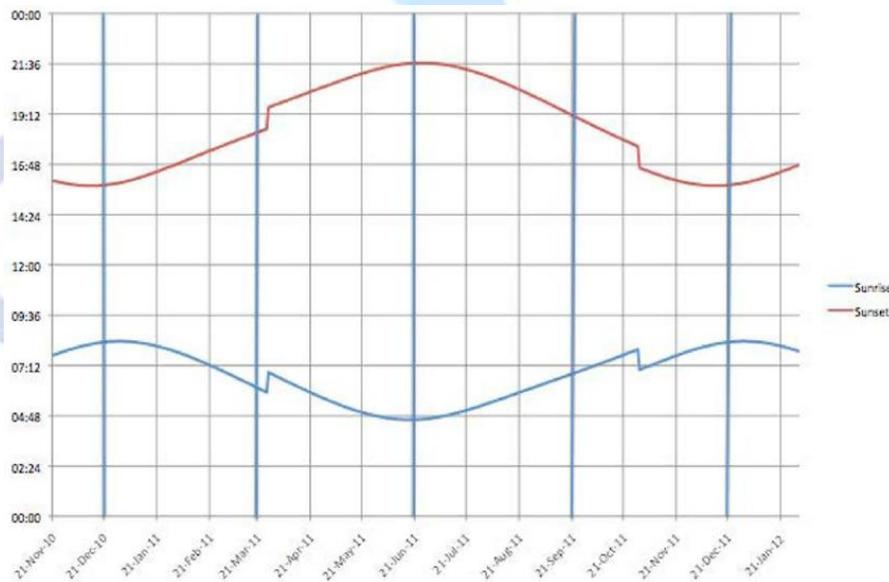




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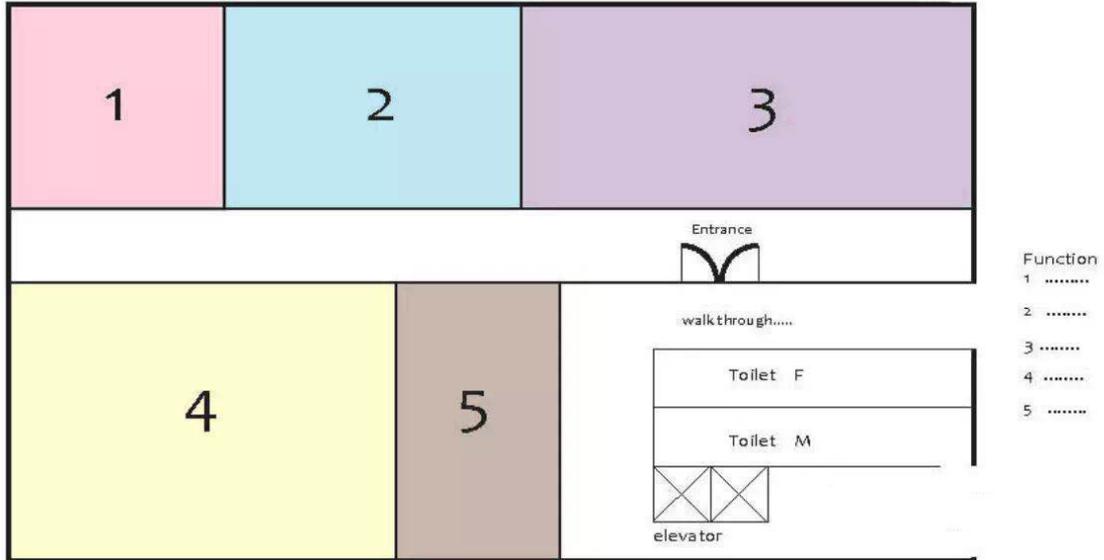
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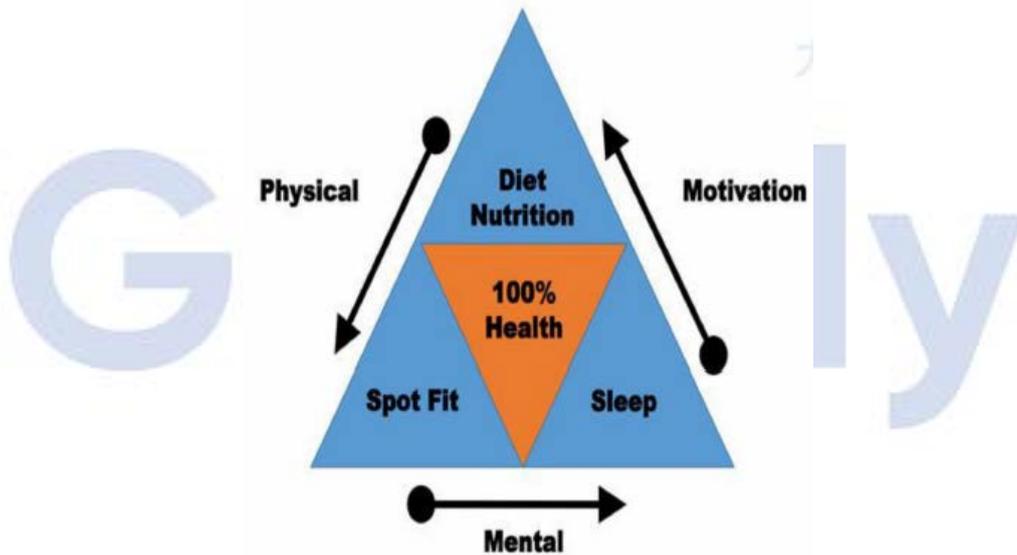


*** library plan

19



20





Most Livable States, 2011

2011 rank	State	2007 rank
1.	New Hampshire	1.
2.	Utah	4.
3.	Wyoming	3.
4.	Minnesota	2.
5.	Iowa	6.
6.	Nebraska	11.
7.	New Jersey	5.
8.	Vermont	7.
9.	Idaho	14.
10.	North Dakota	13.

Gurully



22

Top 10 cities with the most Global 500 companies

Rank	City	Country	Number of companies	Revenues (\$ mn)	Average Revenue
1	Tokyo	Japan	51	\$2,237,560	\$43,874
2	Paris	France	27	\$1,399,172	\$51,821
3	Beijing	China	26	\$1,361,407	\$52,362
4	New York	United States	18	\$869,150	\$48,286
5	London	United Kingdom	15	\$994,772	\$66,318
6	Seoul	South Korea	11	\$519,351	\$47,214
7	Madrid	Spain	9	\$434,393	\$48,266
8	Munich	Germany	7	\$485,386	\$69,341
8	Moscow	Russia	7	\$380,530	\$54,361
8	Osaka	Japan	7	\$291,492	\$41,642
8	Zürich	Switzerland	7	\$242,595	\$34,656
8	Toronto	Canada	7	\$195,510	\$27,930

23

KPI	Strong leadership	All others	Relative difference
Survey percentage	28.2%	71.8%	
Annual revenue growth	10.8%	7.8%	38.2%
Percentage of business from new clients	32.7%	28.8%	13.6%
Billable utilization	75.1%	70.2%	6.9%
Projects delivered on time	80.4%	73.5%	9.3%
Annual revenue per billable consultant (k)	\$216	\$196	10.4%
Annual revenue per employee (k)	\$183	\$174	5.5%
Earnings before income taxes, depreciation and amortization (EBITDA)	14.2%	14.0%	1.9%

Source: Service Performance Insight, January 2014



24

Hours of leisure time per year in Someland							
	Teens	20s	30s	40s	50s	60s	70s +
Watching TV/videos	1,200	700	400	500	600	700	1,100
Socialising with 4 or less people	150	150	300	250	250	200	200
Socialising with 4 or more people	350	350	50	50	25	25	25
Individual exercise	150	100	200	200	50	75	150
Group exercise/sport	450	350	200	150	50	0	0
Cinema	100	75	50	25	25	50	75

25

Table I. Age distribution of gastrointestinal tumours.

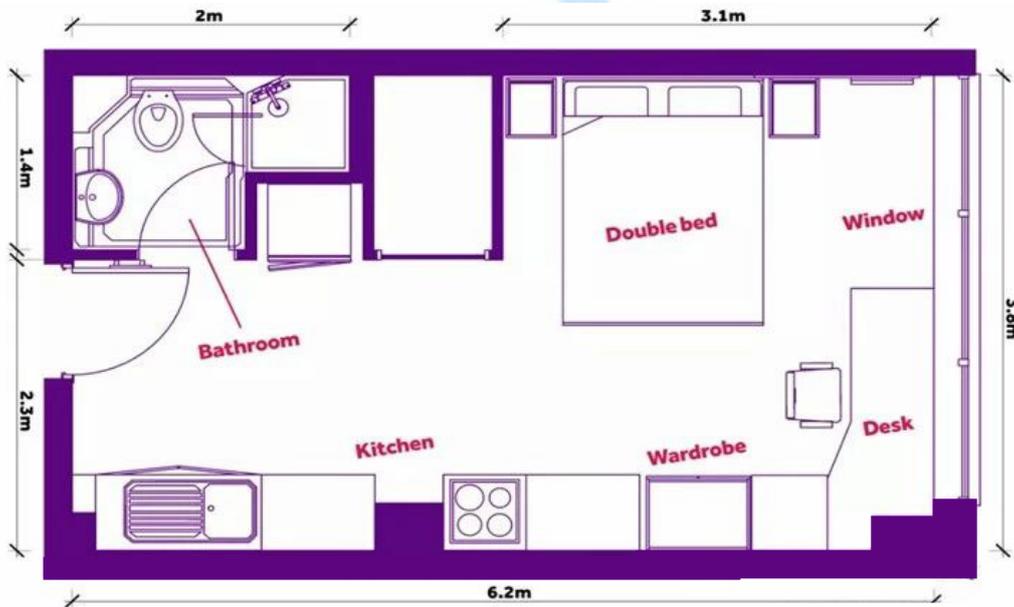
Age in years	Number of cases	Percentage
15-24	82	2.8%
25-34	248	8.4%
35-44	634	21.4%
45-54	834	28.1%
55-64	713	24.0%
>65	433	14.6%



26

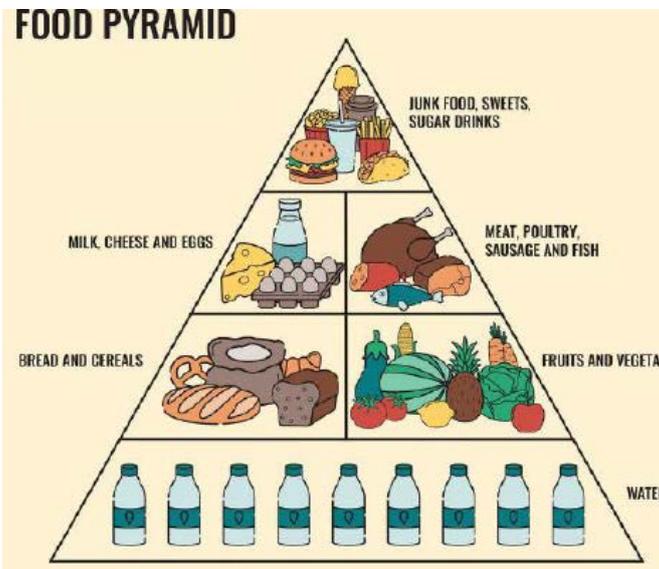


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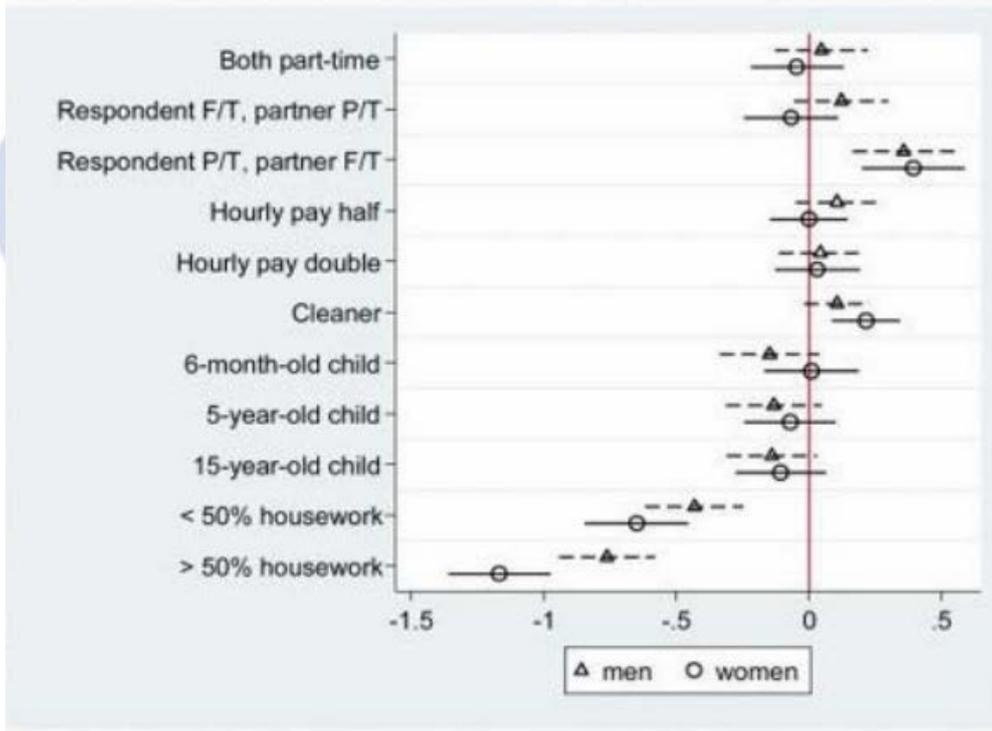


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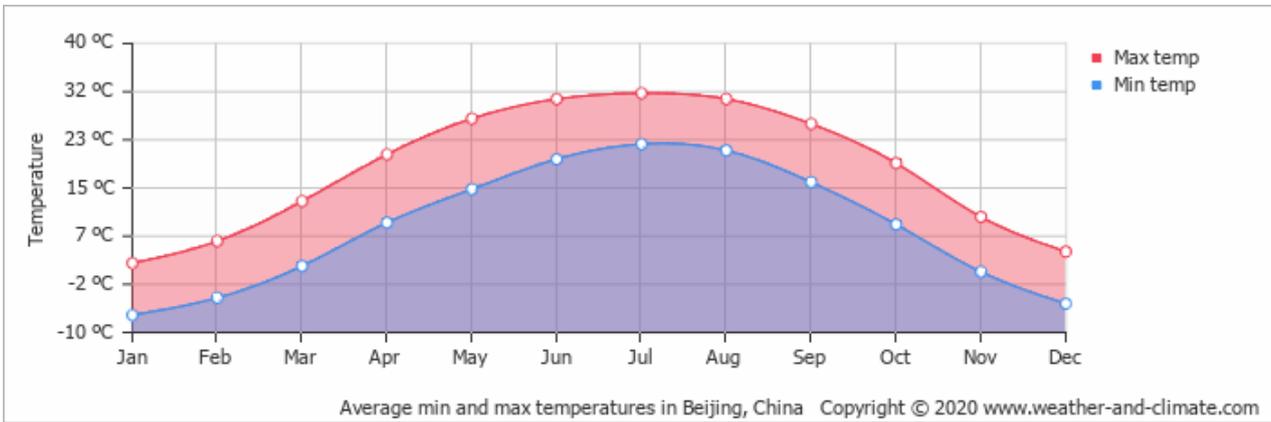
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- Full-time Managerial Adults
- Full-time non-managerial Adults
- Full-time Total
- Parttime
- Total

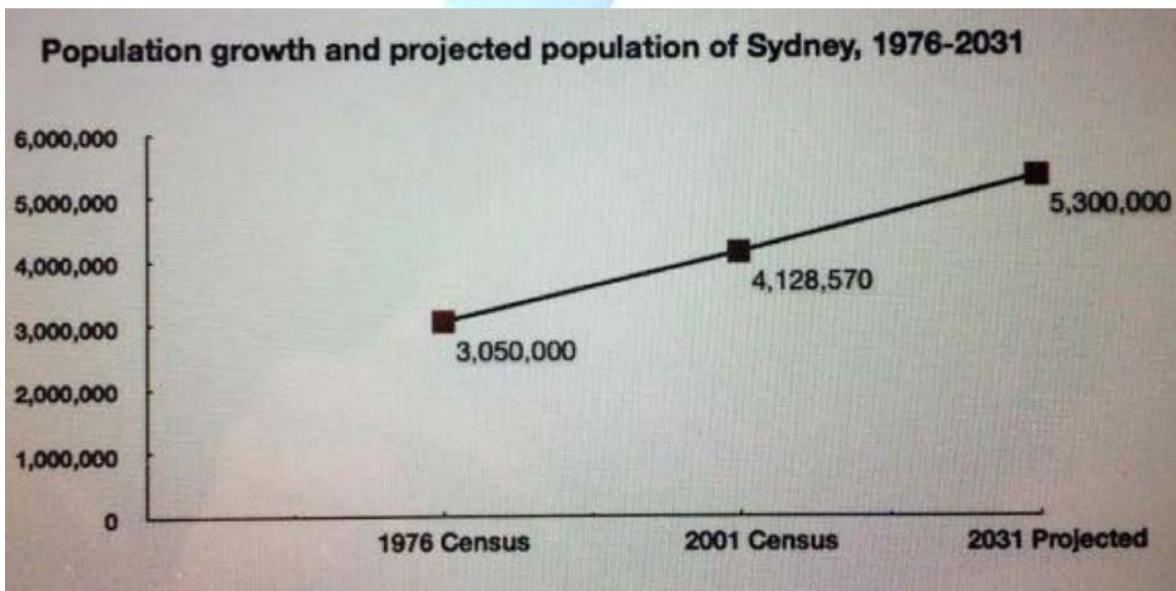




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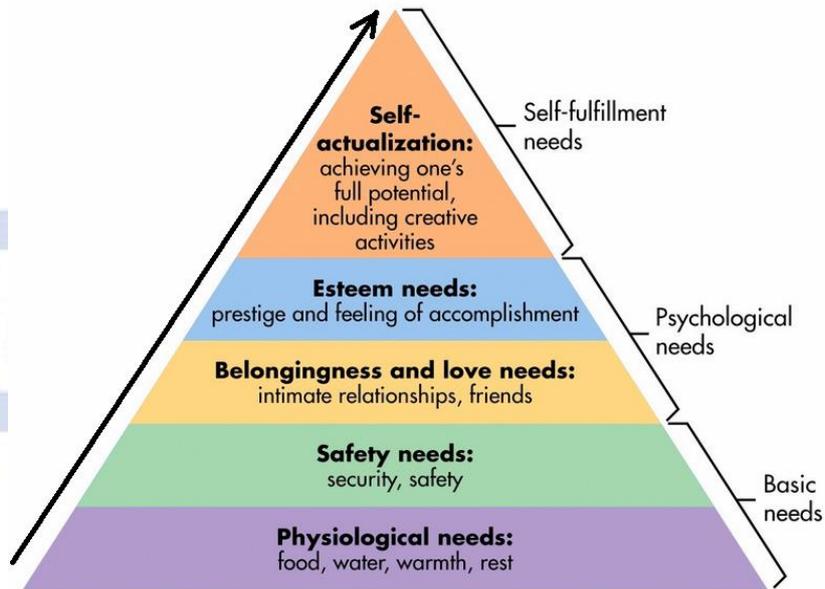




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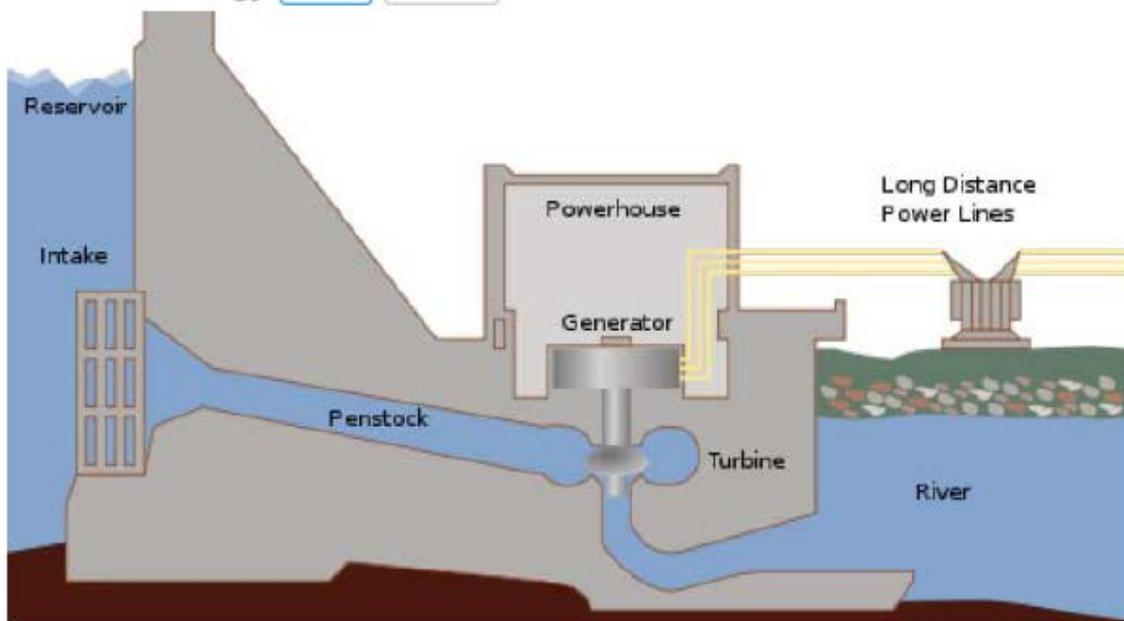


34

Water Use in Gulf Countries 2000 (%)

	Bahrain	Kuwait	Qatar	Oman	UAE	Saudi Arabia
Domestic	53	63	30	11	35	13.5
Agriculture	39	19	62	83	65	85
Industrial	8	18	5	5.5	2	2.5

35

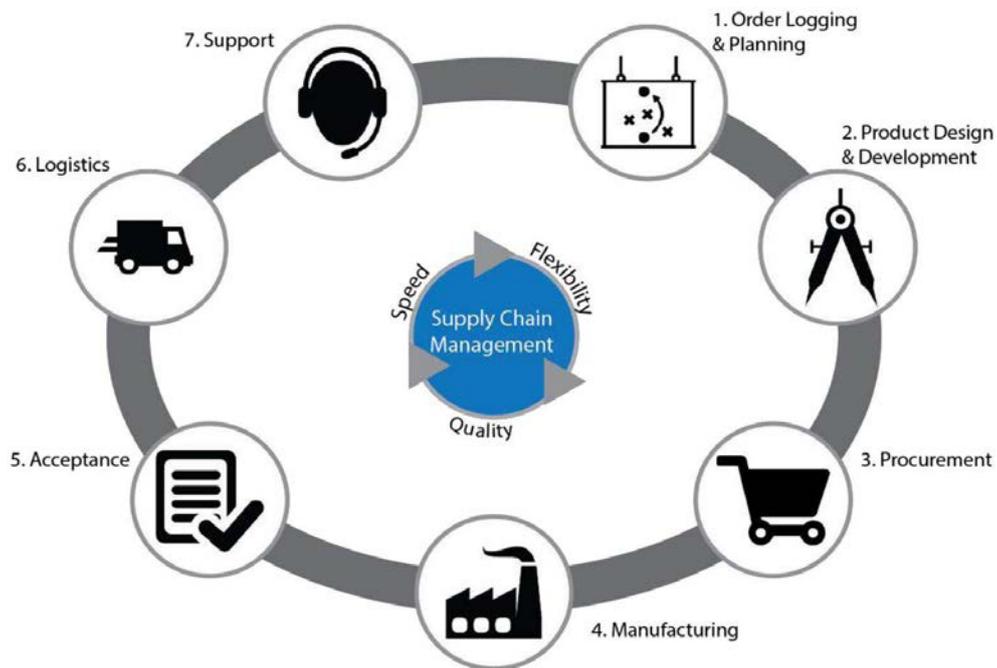




36 Increase in the number of dwellings over past 10 years

Region	Dwelling stock			
	Year		Increase number	Percentage increase
	1994	2004		
Sydney city	45,040	76,833	31,793	71

37



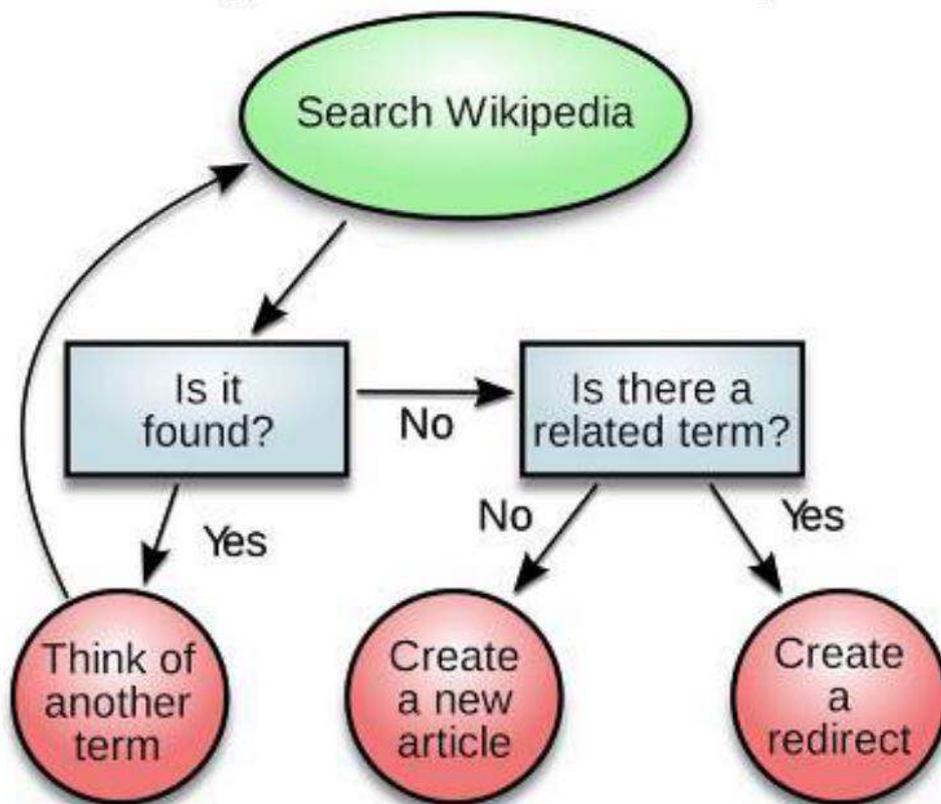


38

Teaching as a career	
Final year students who want to be a teacher	1%
Graduate students working in teaching	7%
Employed in teaching field	95%

39

Adding an article to Wikipedia



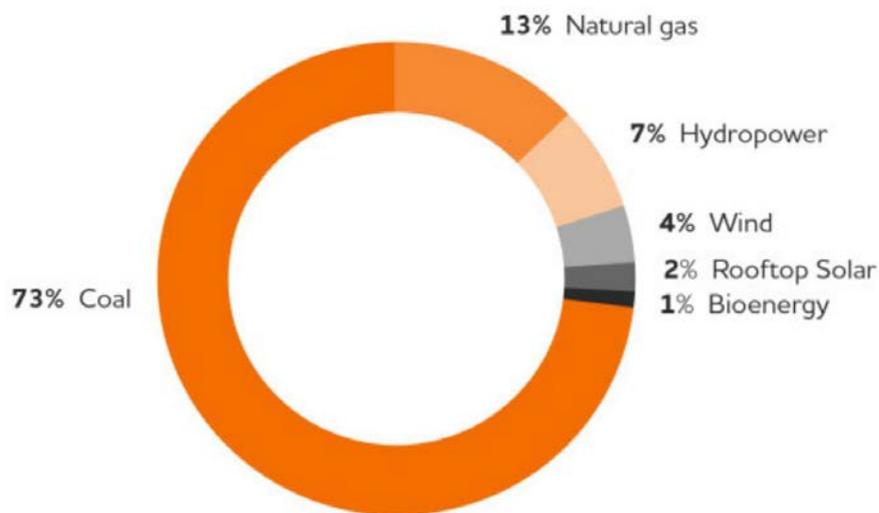


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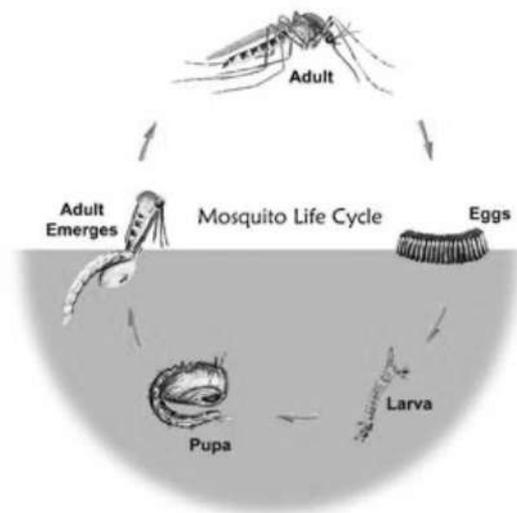
The Most Common Languages in the World			
	LANGUAGE	APPROXIMATE NUMBER OF NATIVE SPEAKER(in the year 2000)	COUNTRIES WITH SUBSTANTIAL NUMBERS OF NATIVE SPEAKERS
1	Mandarin Chinese	874,000,000	16
2	Hind(India)	366,000,000	17
3	English	341,000,000	104
4	Spanish	322 - 358,000,000	43
5	Bengali(India and Bangladesh)	207,000,000	9

41

ELECTRICITY GENERATION ACROSS AUSTRALIA



42

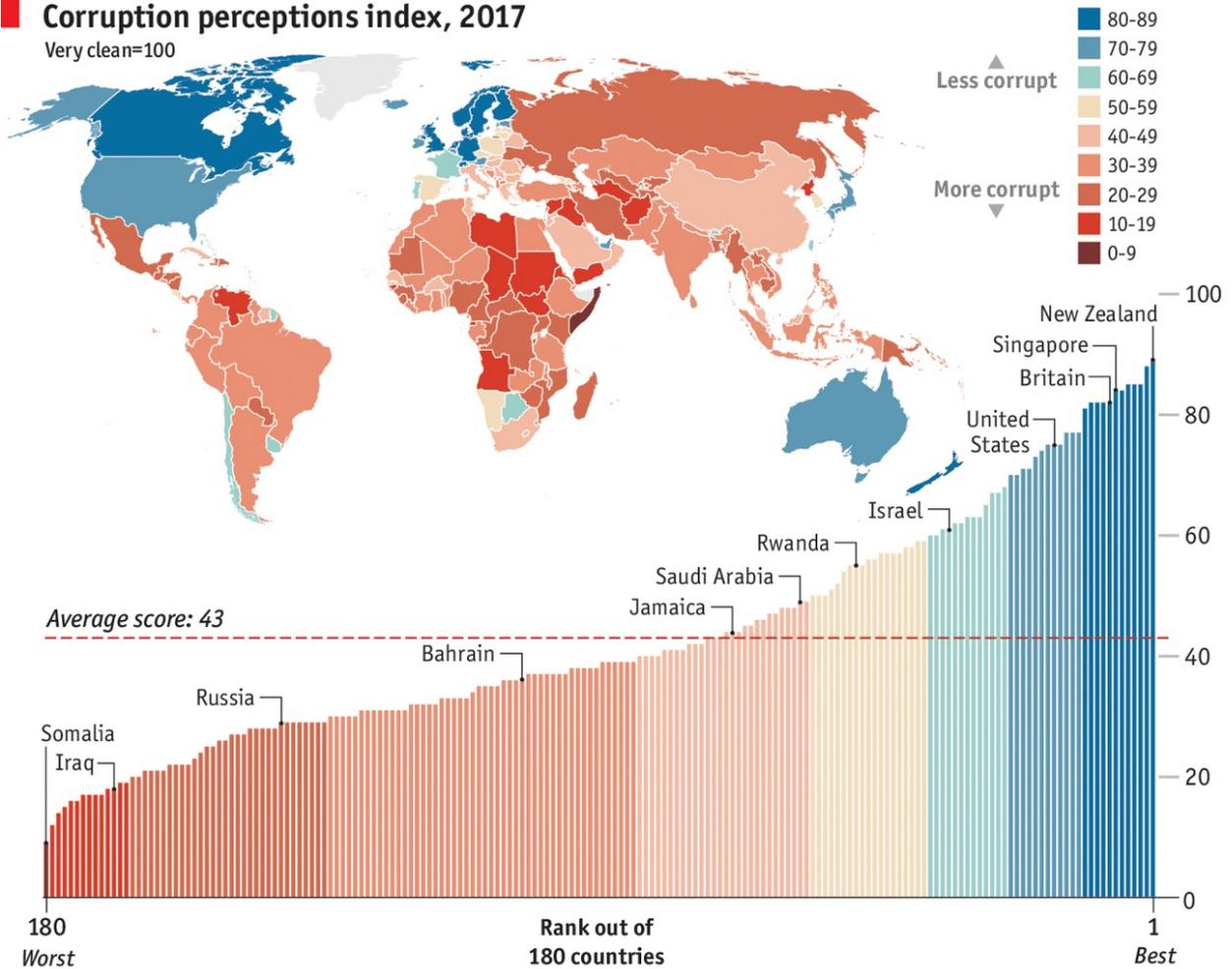




43

Corruption perceptions index, 2017

Very clean=100



Source: Transparency International
Economist.com

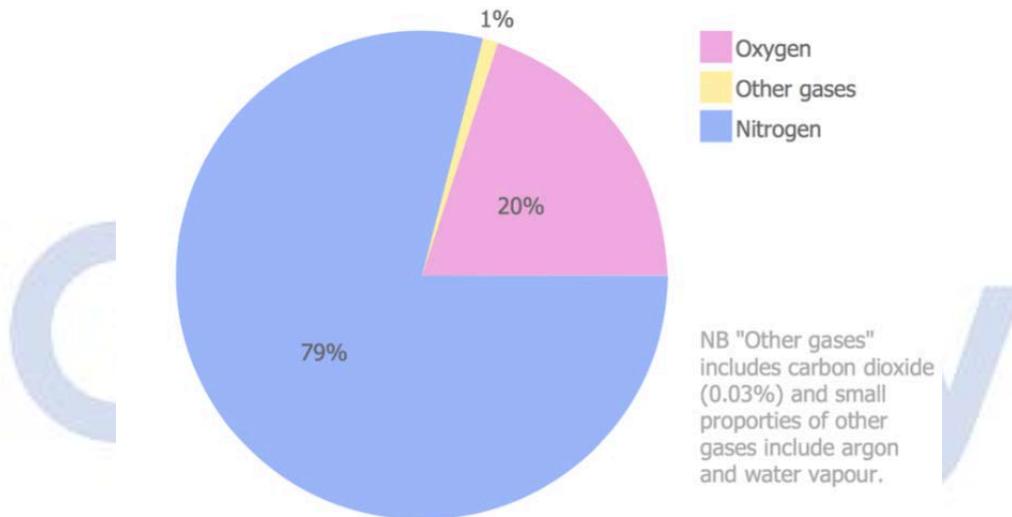


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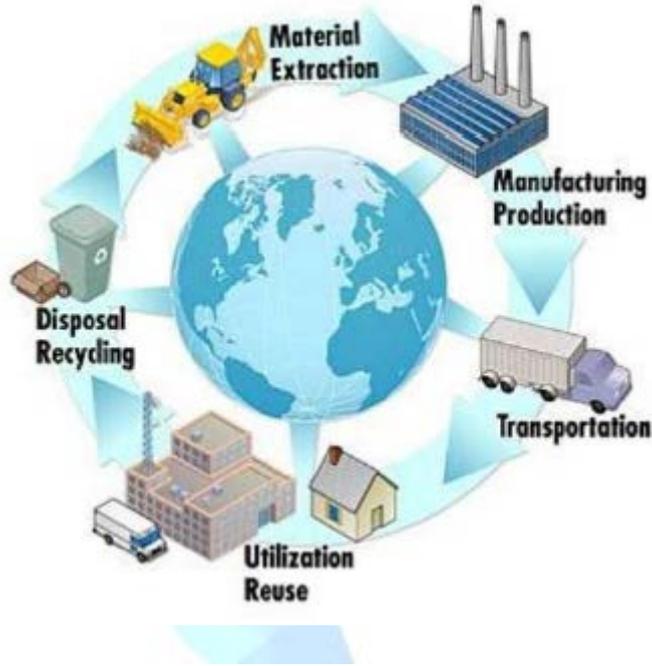
Approximate composition of the air

45

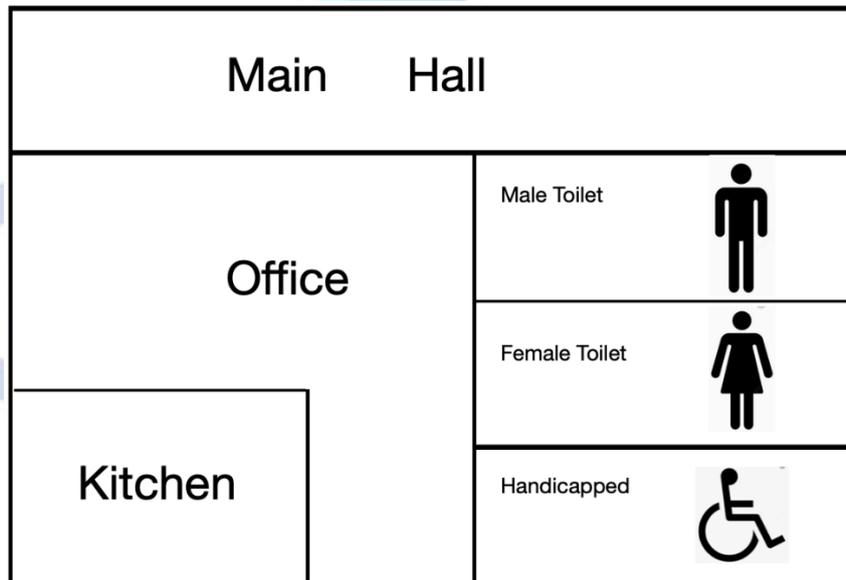




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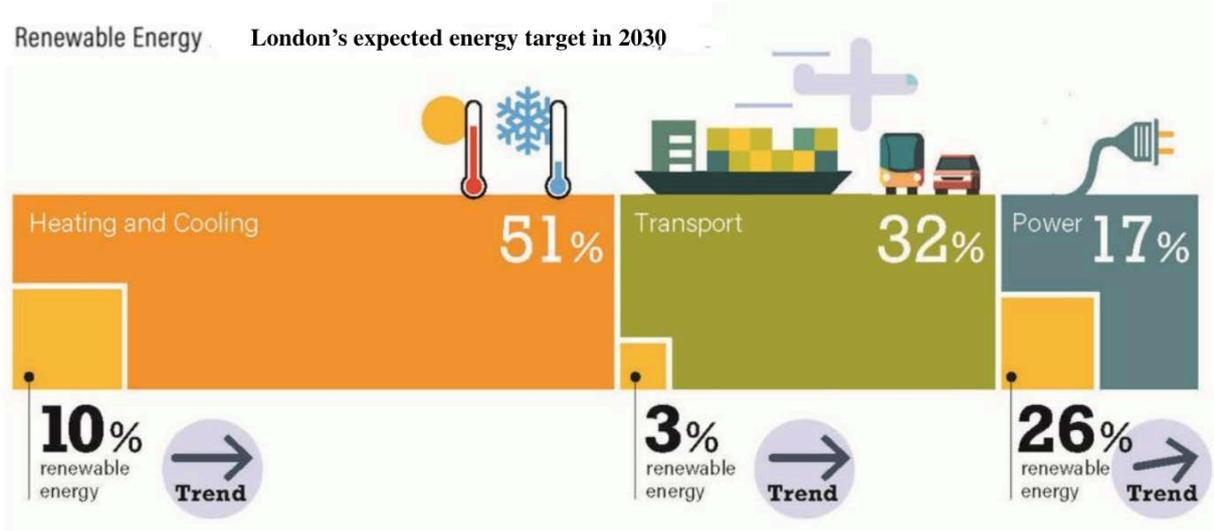


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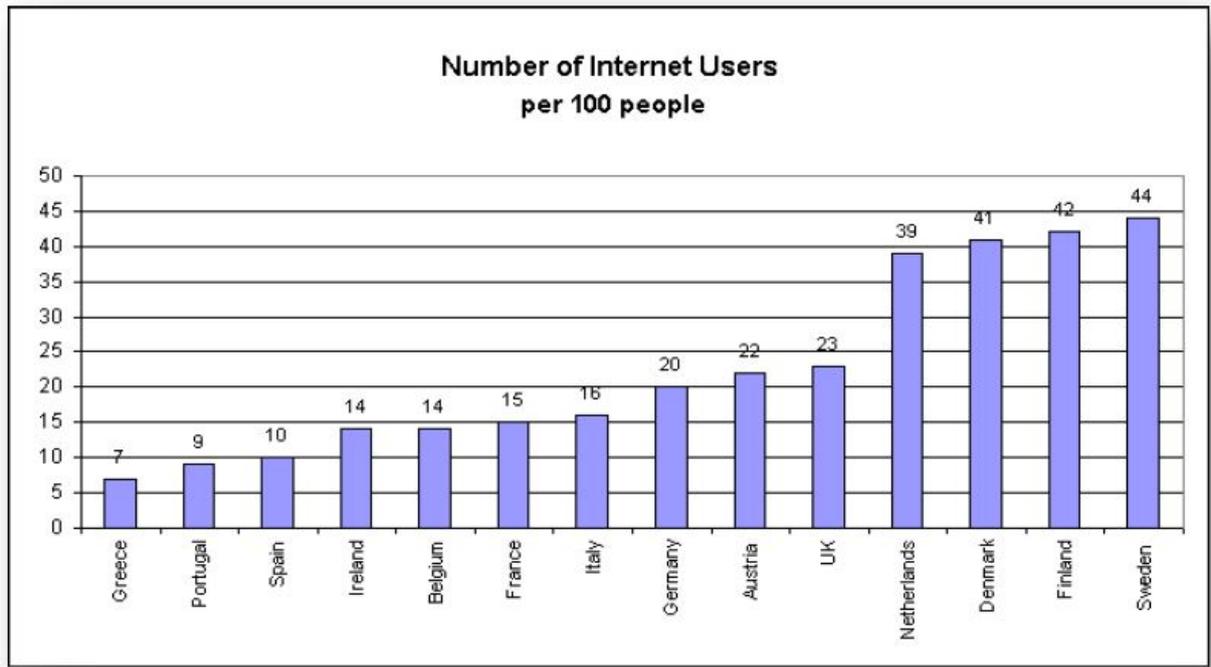


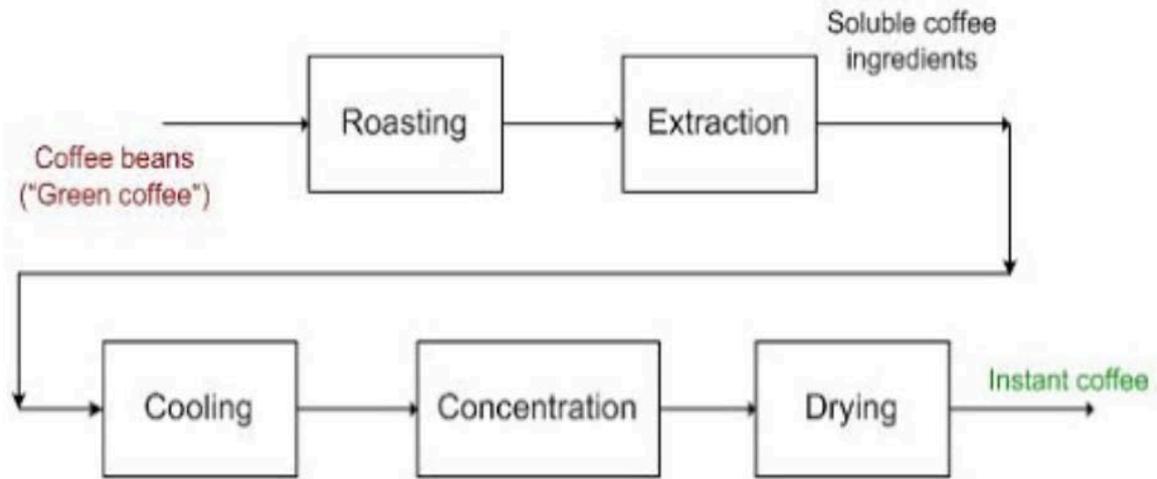


48 Renewable Energy London's expected energy target in 2030



49

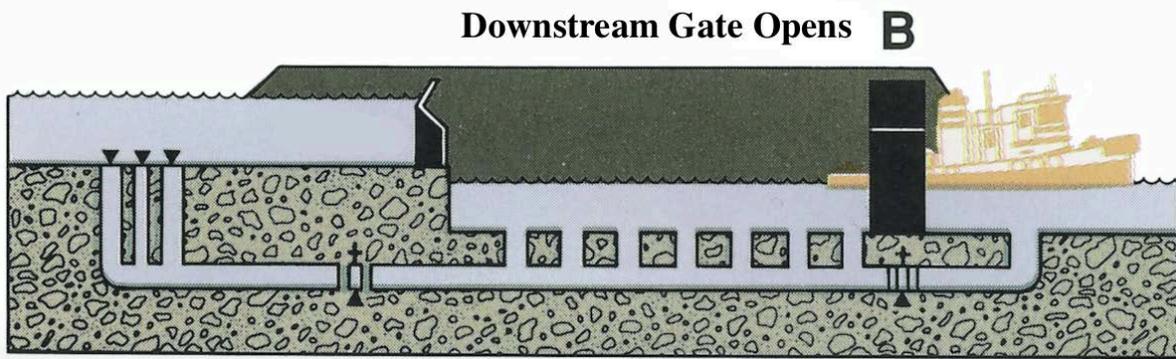
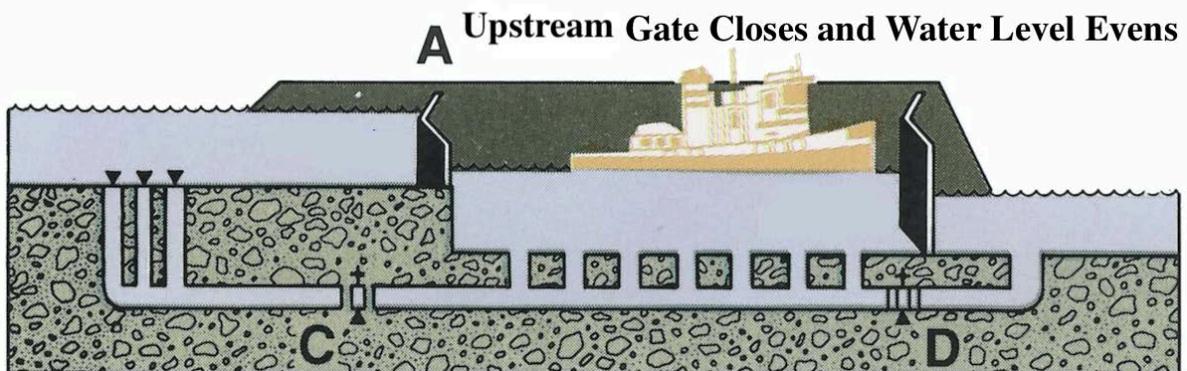
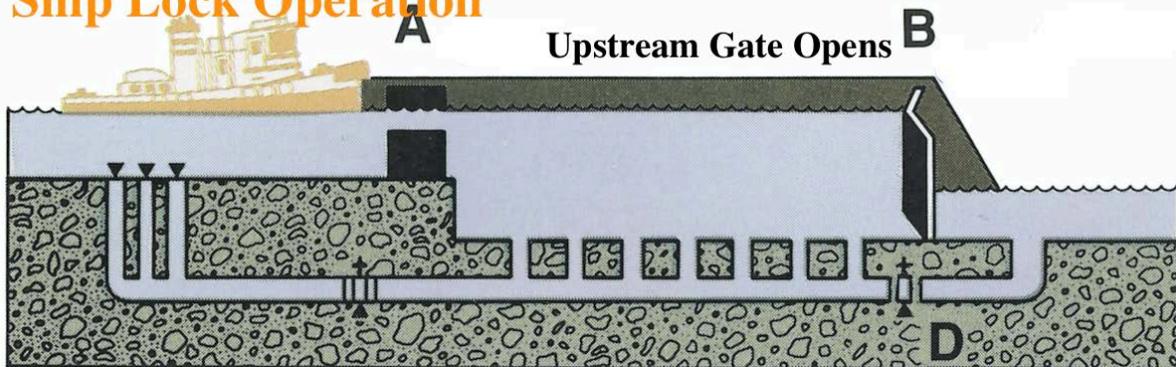






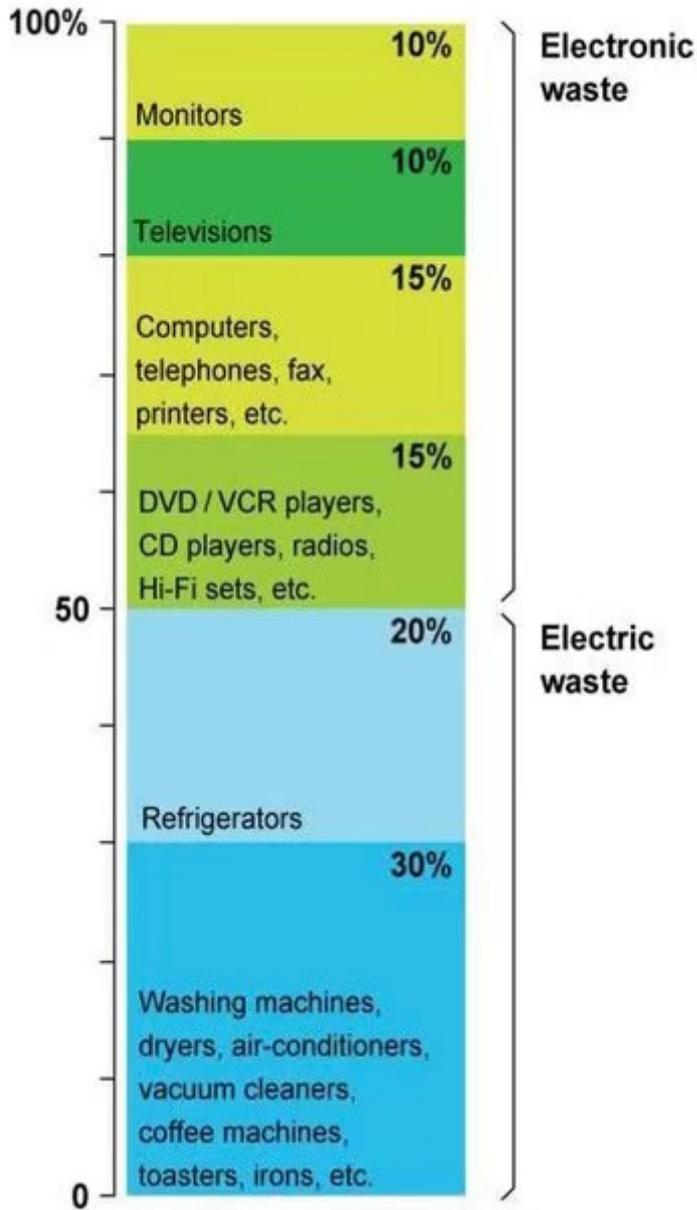
51

Ship Lock Operation



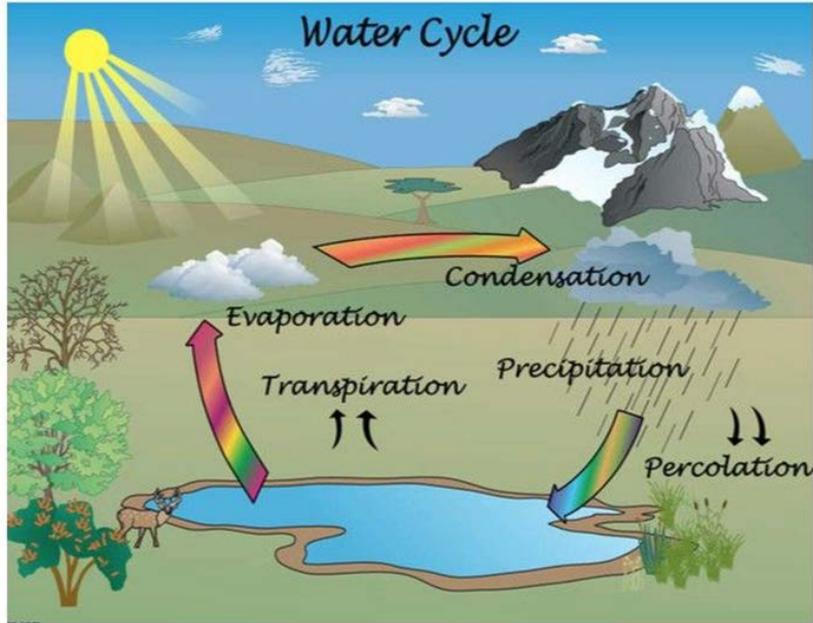


What is e-waste?

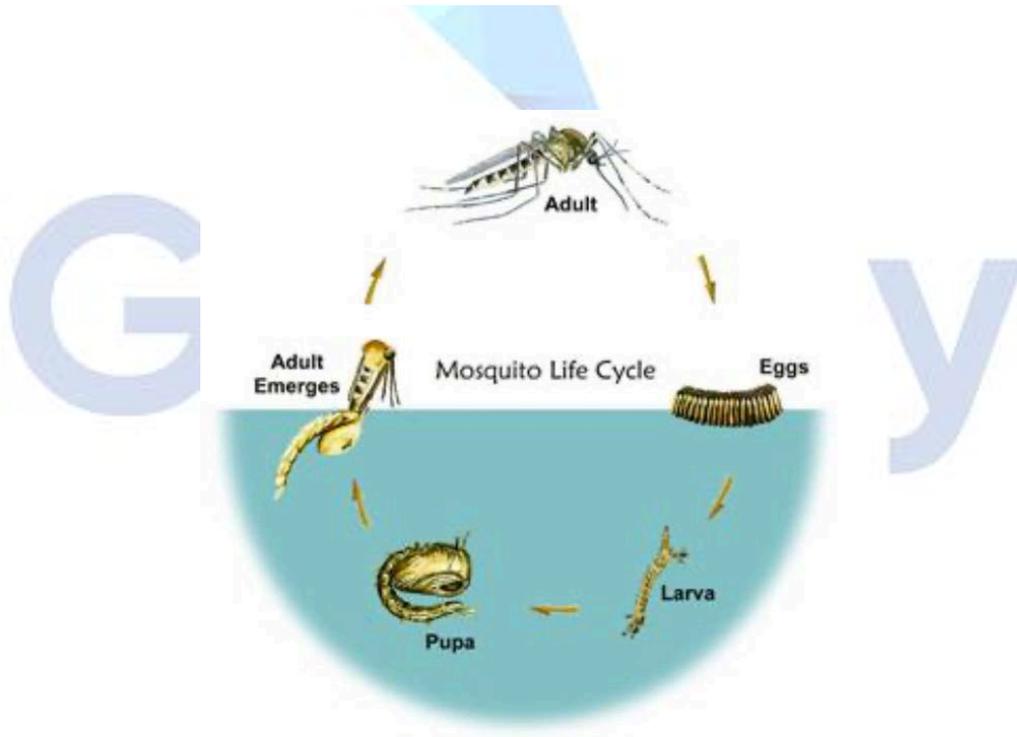




53



54





55

Ice is Never 100% Safe!

Activity / Vehicle	Minimum Ice Thickness
Person walking	4"
Person on skis	5-7"
Motorcycle	8-12"
Sedan car	12-15"
Pickup truck	12-15"

Minimum Ice Thickness Guidelines for New Clear Ice Only

56





57



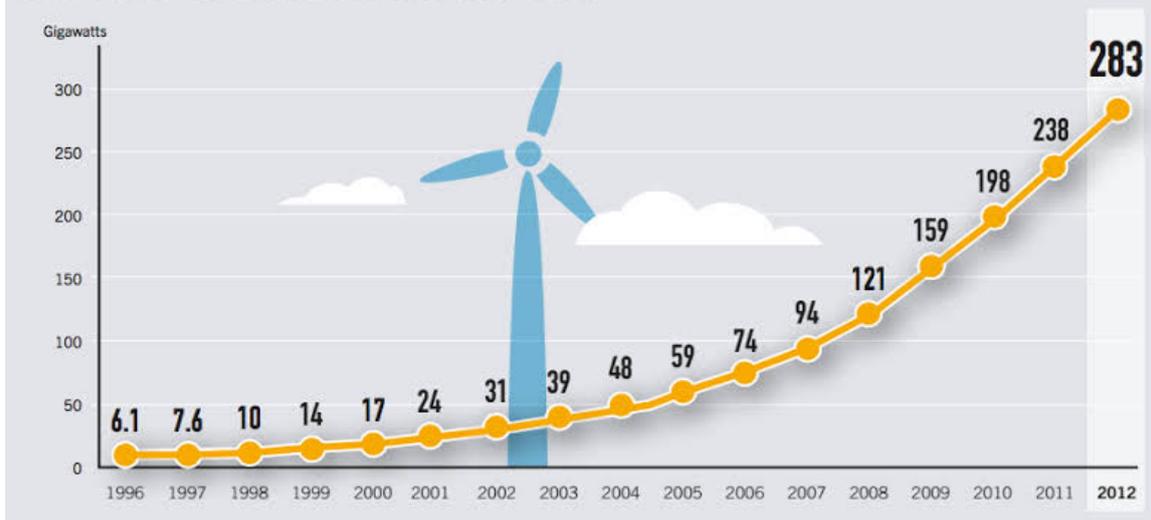
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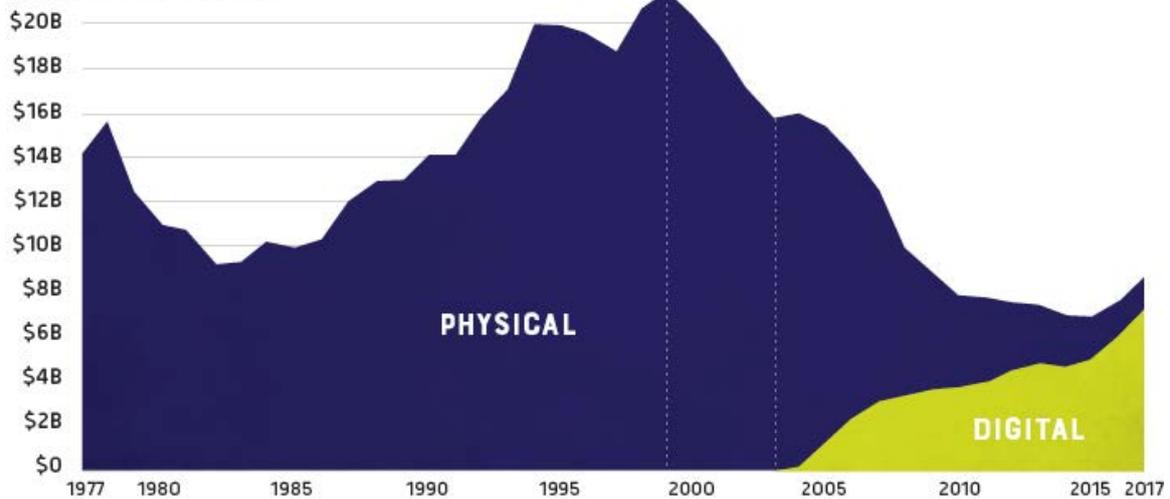
WIND POWER GLOBAL CAPACITY, 1996–2012



60

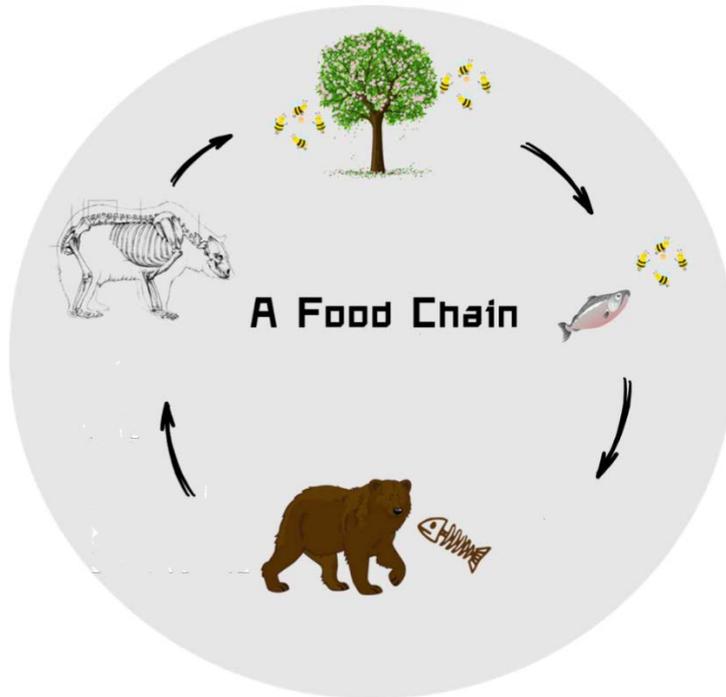
MUSIC REVENUES

Adjusted for Inflation, 2017 Dollars



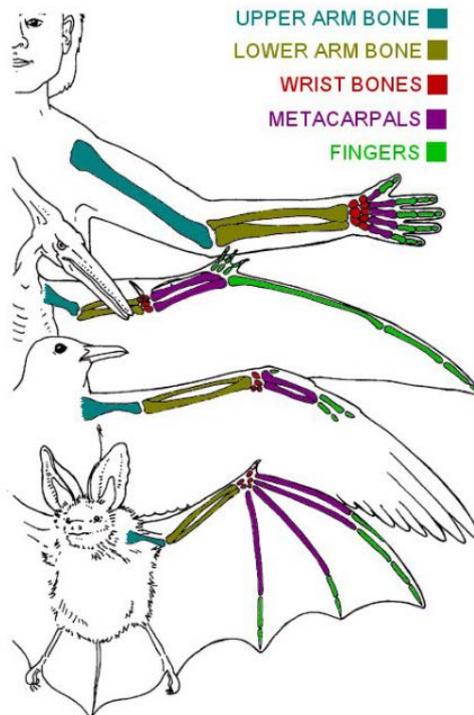


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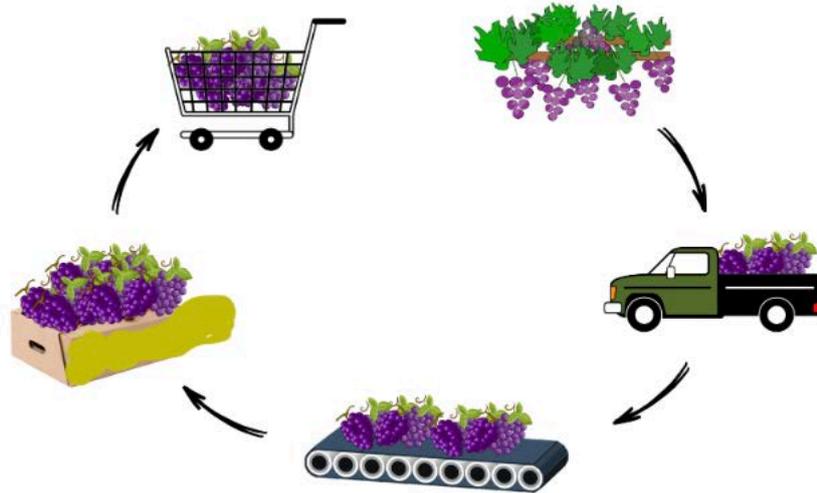
Gurully





63

Fruits



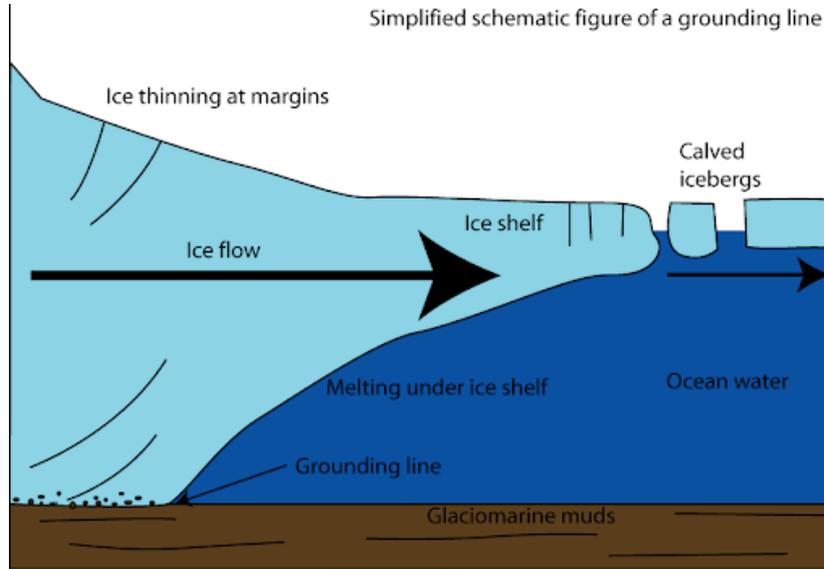
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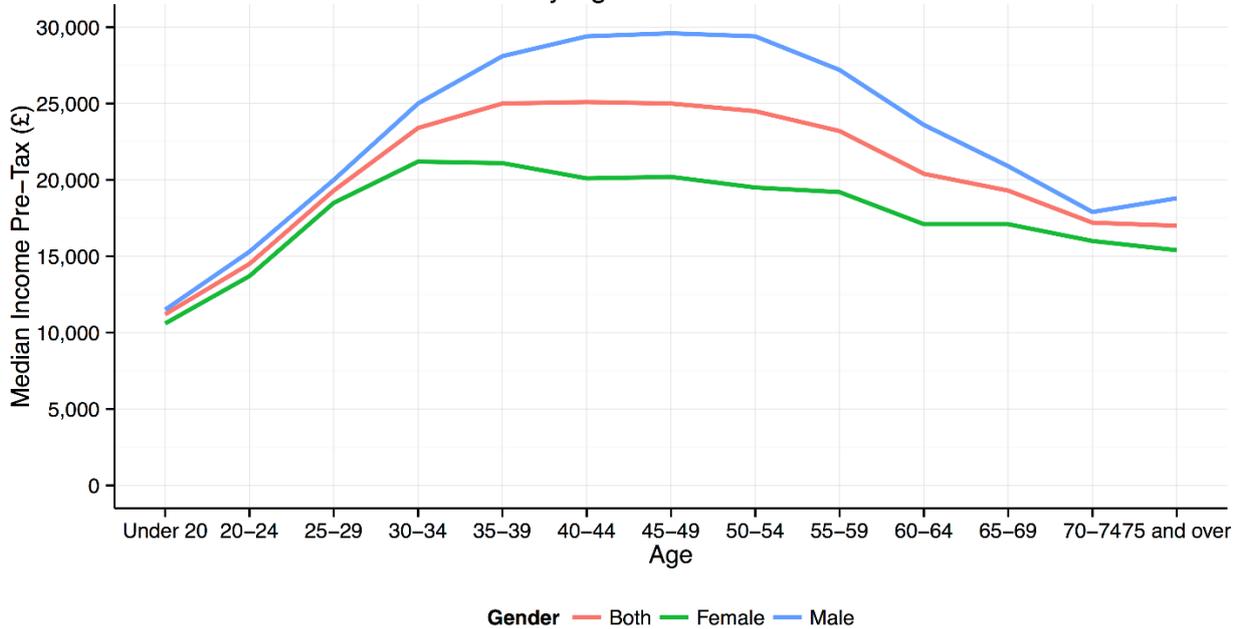
65

Simplified schematic figure of a grounding line



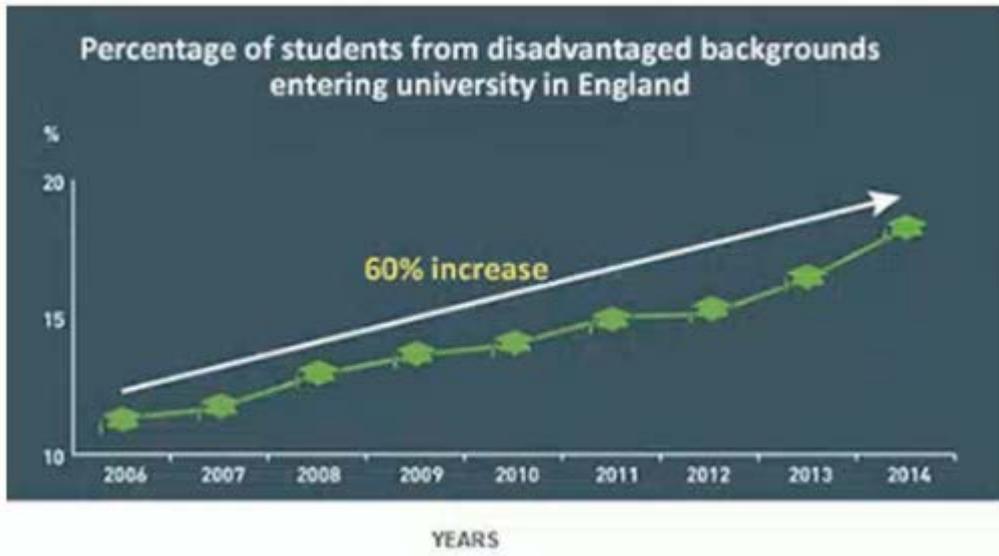
66

Income by Age and Gender in the UK





67



68

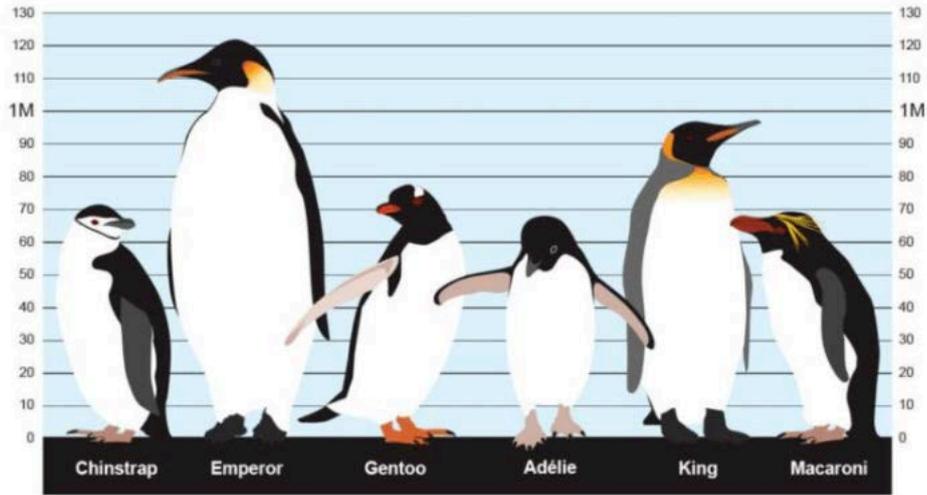


Computers then and now



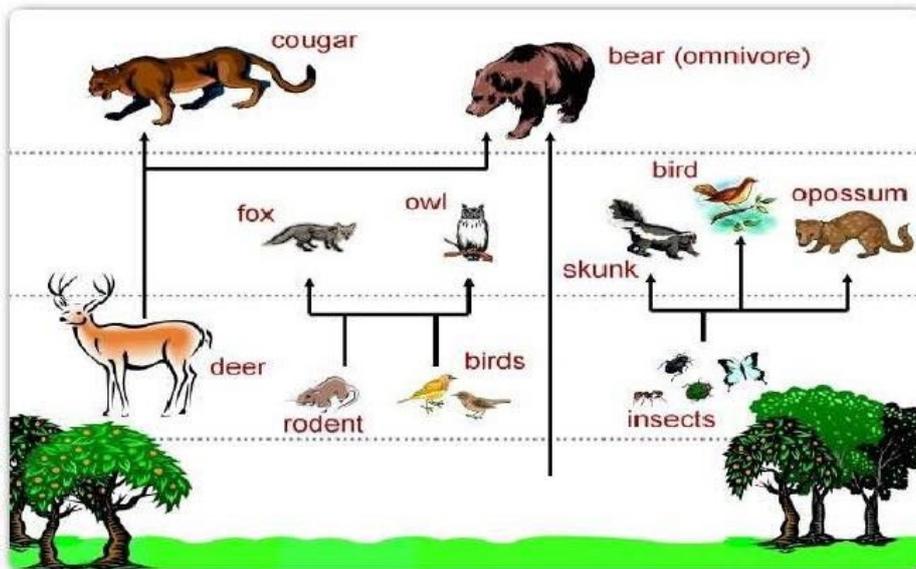


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Food Web of the Temperate Forest





71

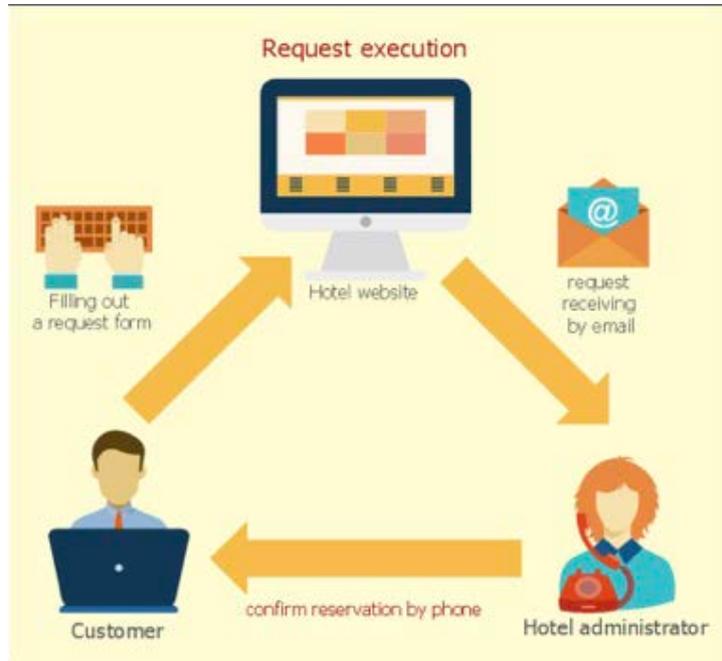


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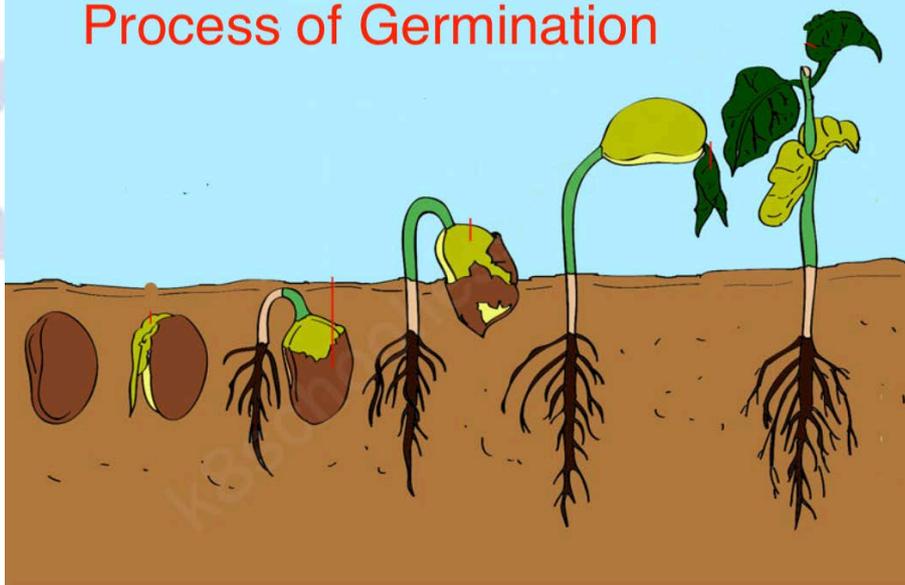


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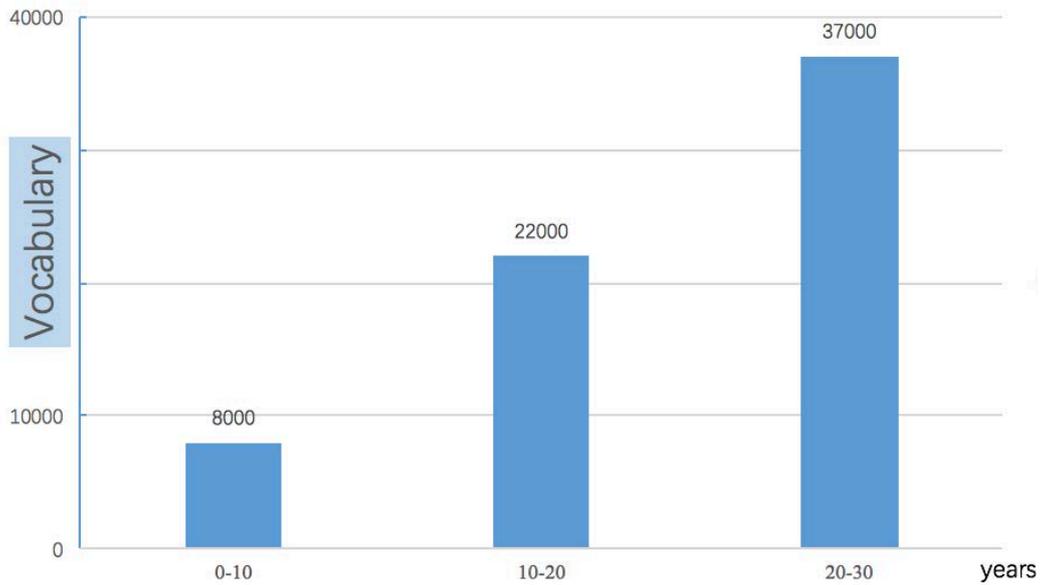
74

Process of Germination



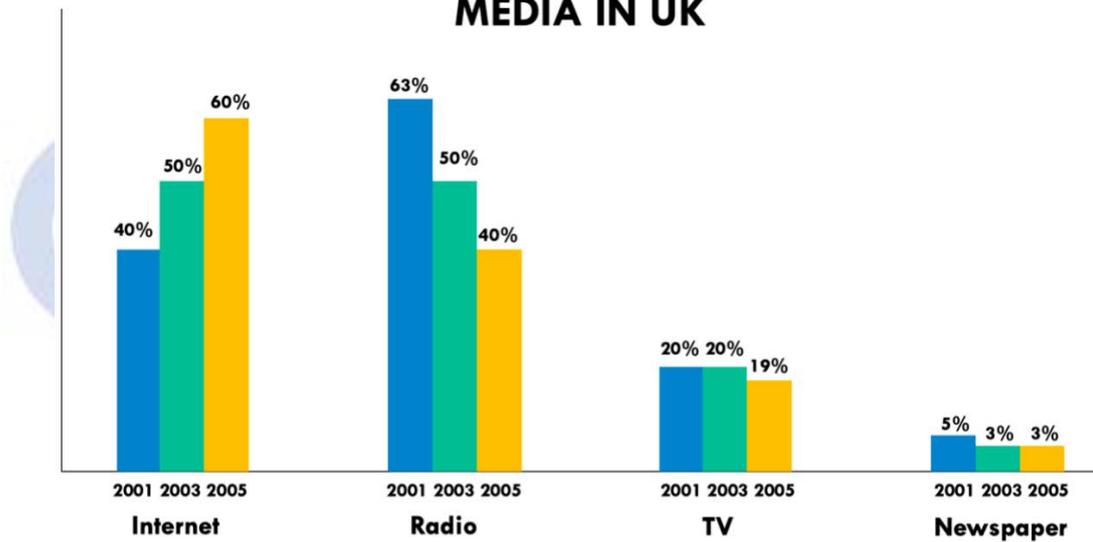


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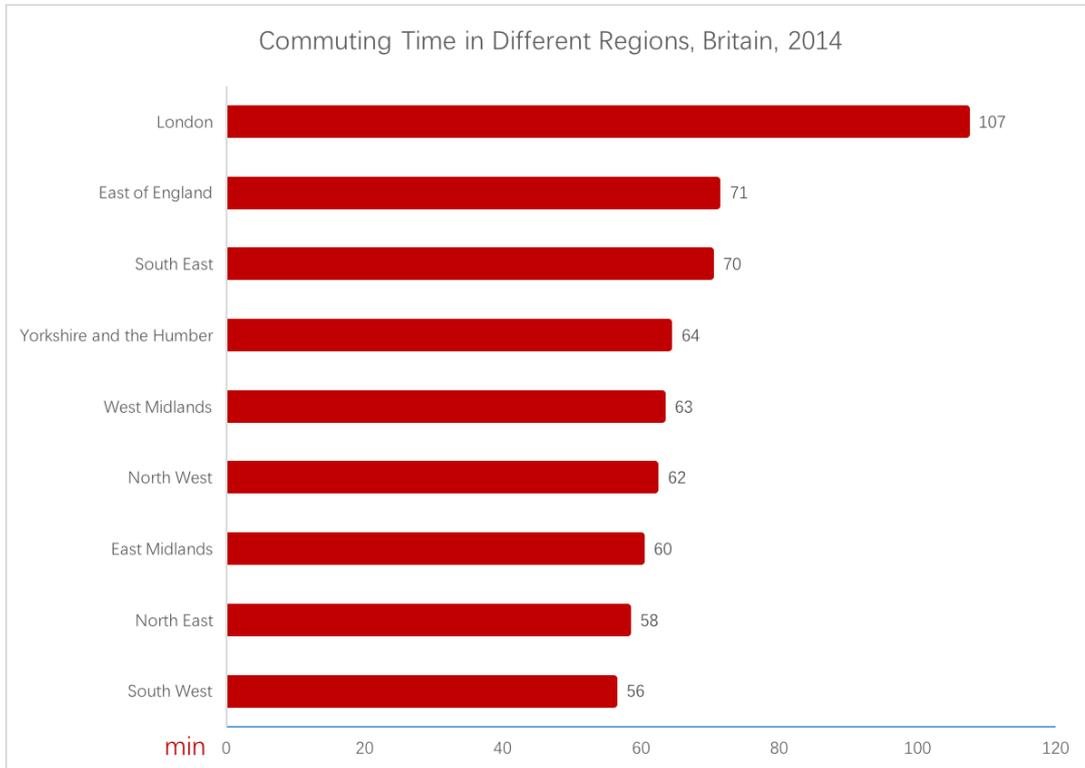
76

MEDIA IN UK

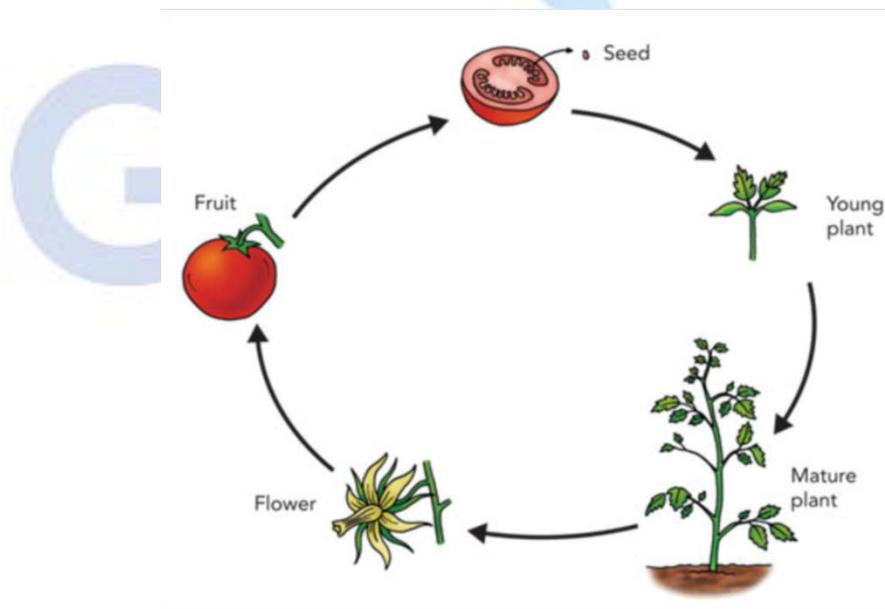




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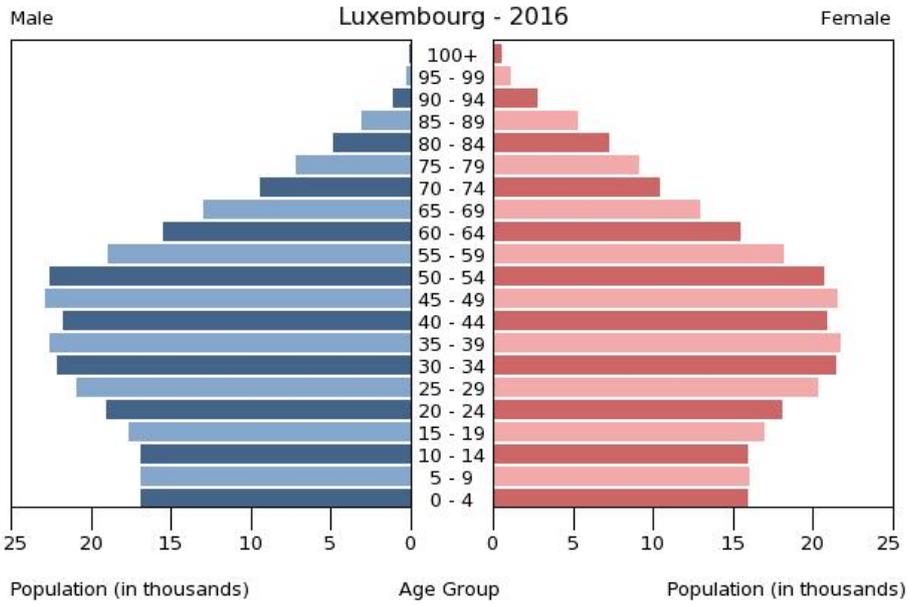


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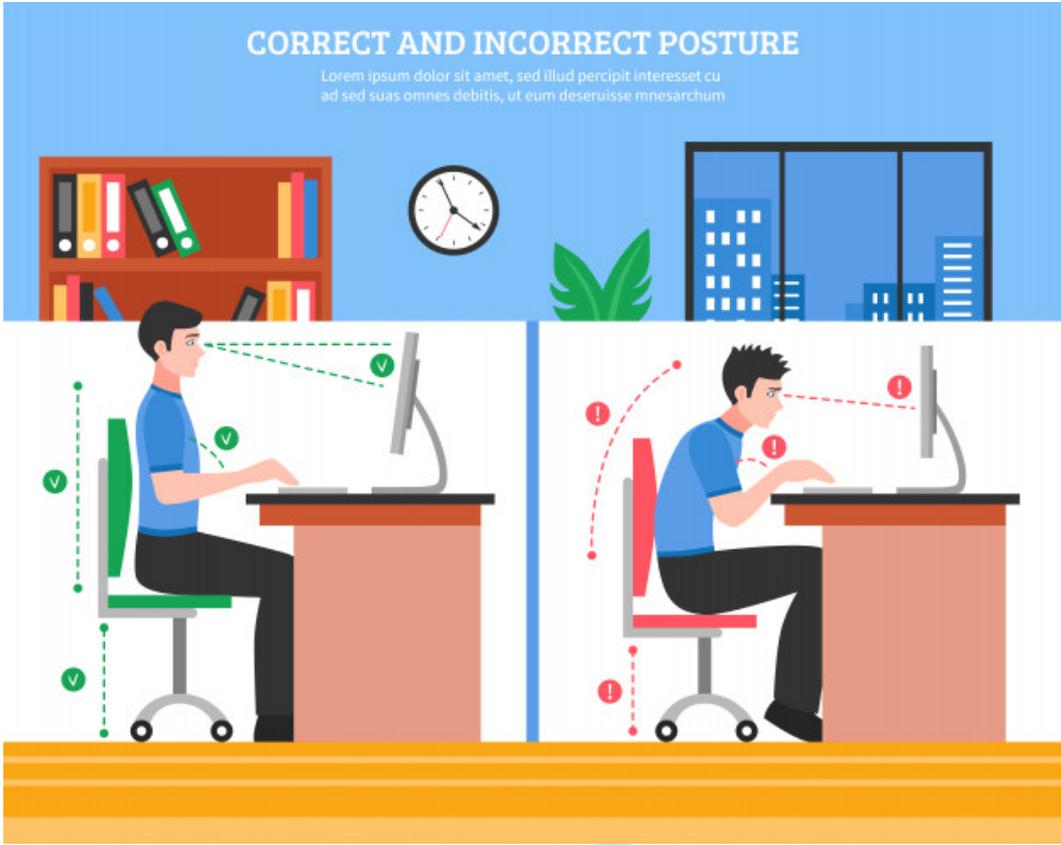

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CORRECT AND INCORRECT POSTURE

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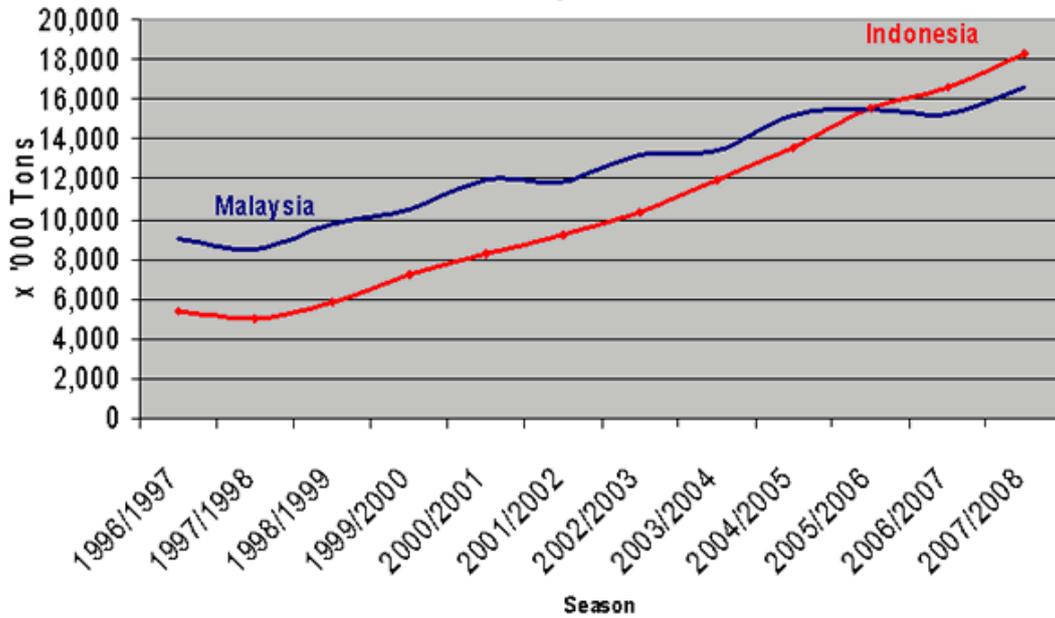


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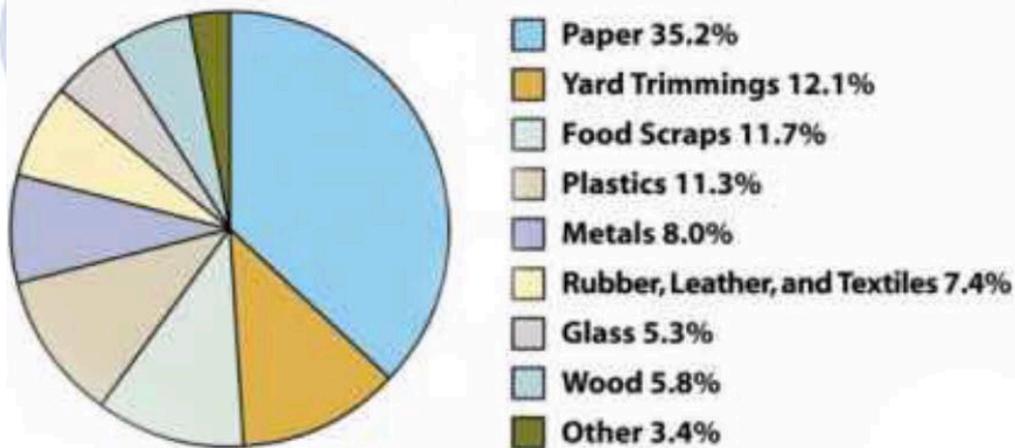
82

Indonesia and Malaysia Palm Oil Production



83

2003 Total Waste Generation— 236 Million Tons (before recycling)





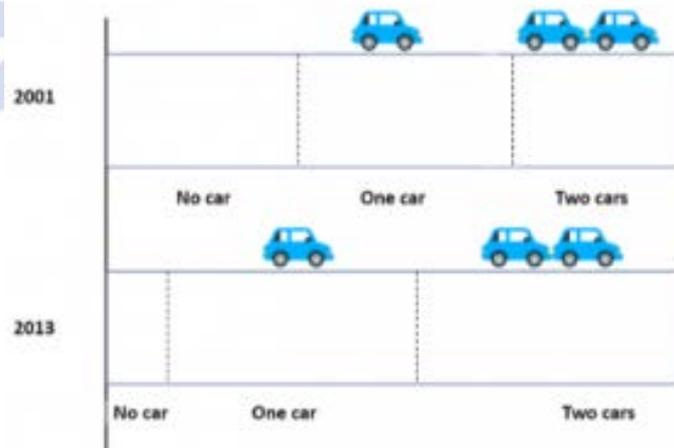
84

London street views in 19th century and now



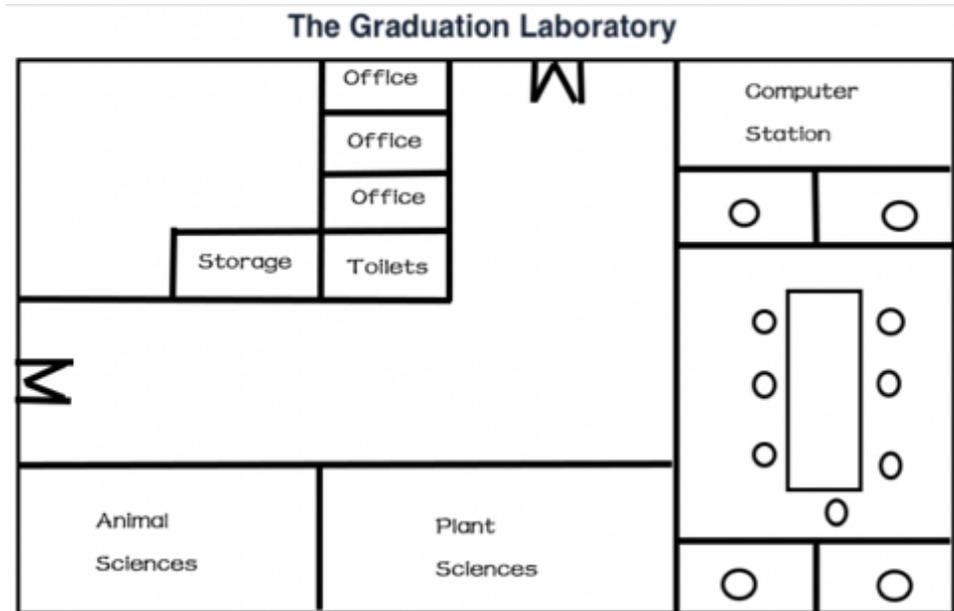
85

Vehicle ownership, New Zealand (2001, 2013)





86

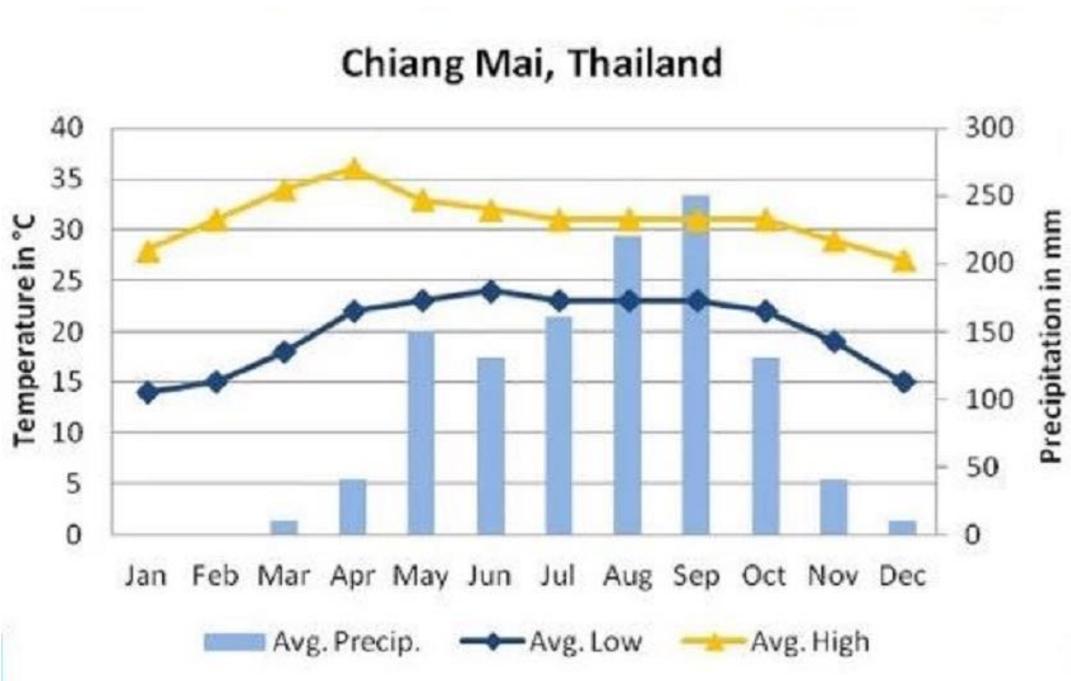


87

Annual Income of Bachelor degrees holders in different fields			
	1980	1990	2000
Business	91,000	97,000	105,000
Education	78,000	85,000	98,000
Language and Literature	64,000	71,000	80,000

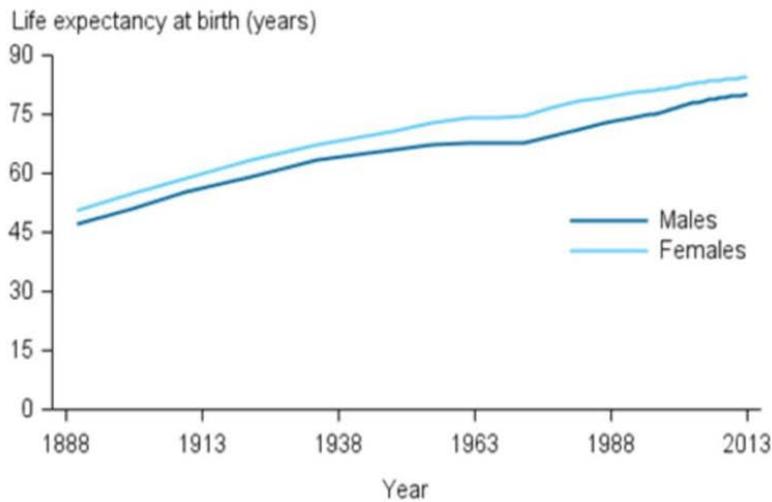


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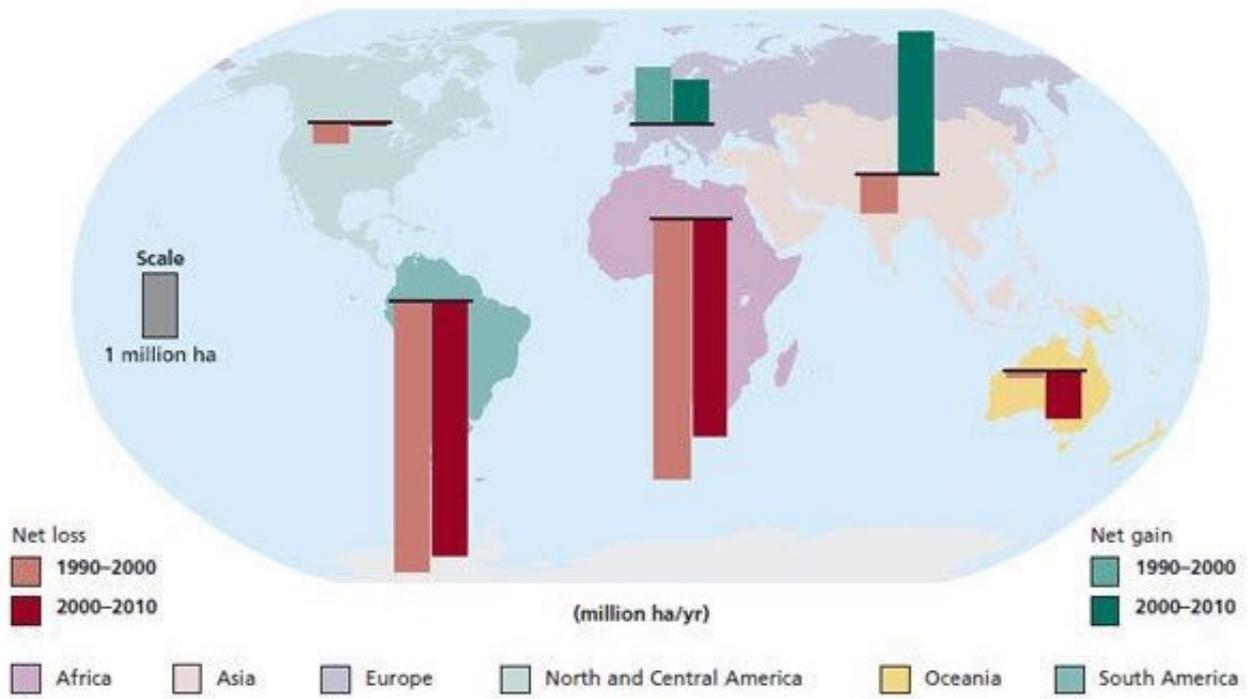
Figure 1: Life expectancy (years) at birth by sex, 1881–1890 to 2011–2013



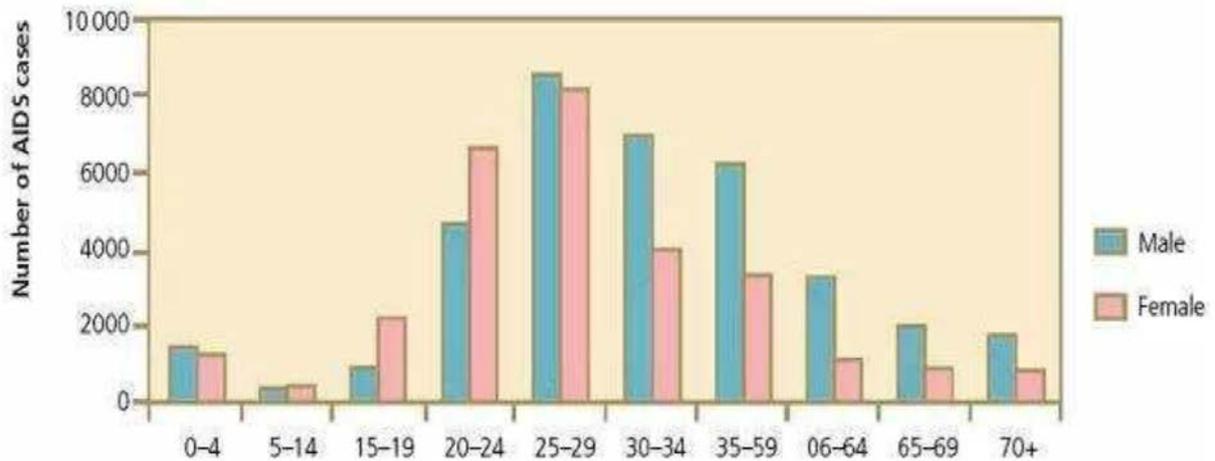


90

Annual change in forest area by region, 1990–2010



91

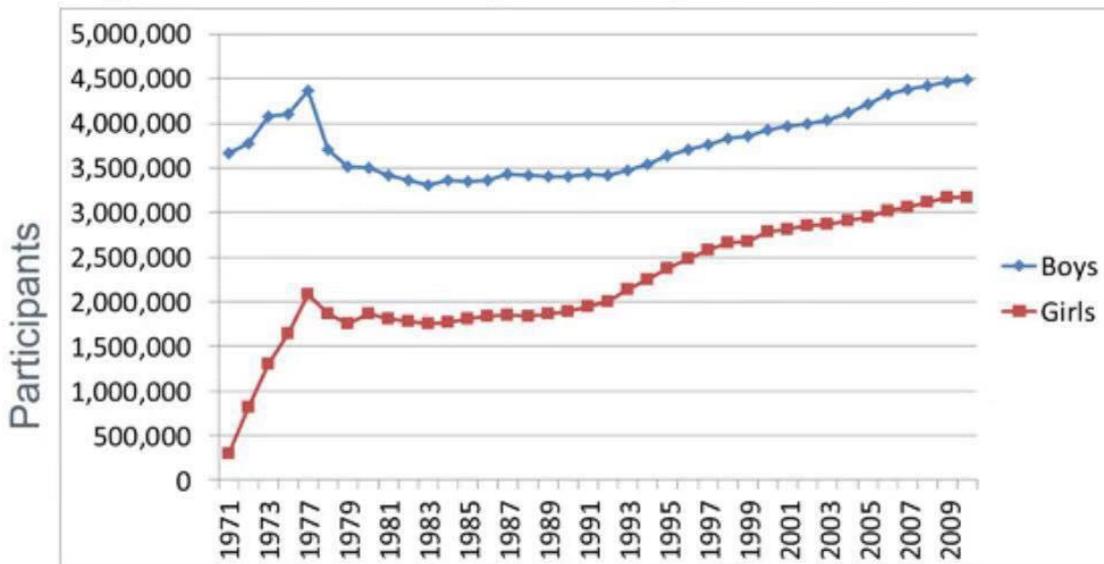




92 How Dell does closed-loop recycling



93 High School Athletics Participation Survey Totals 1971-2010



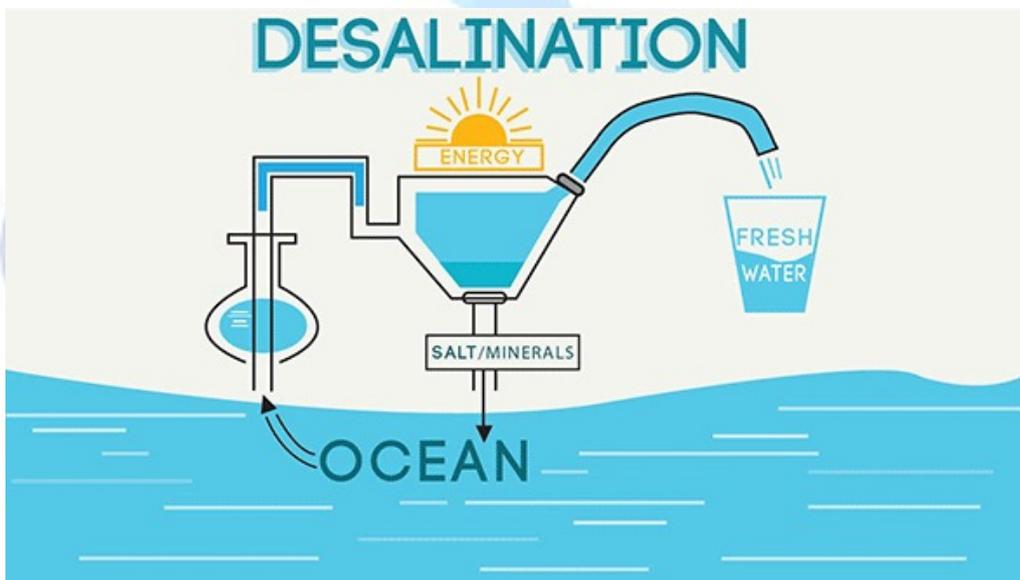


94

Two examples of “input-process-output”

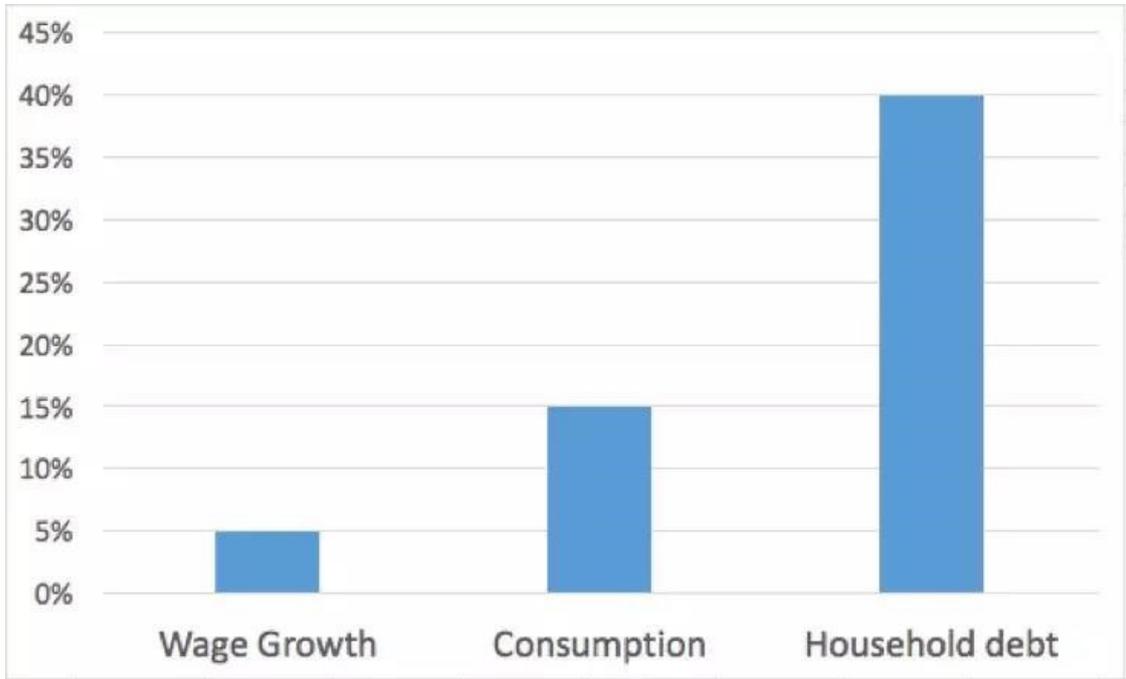


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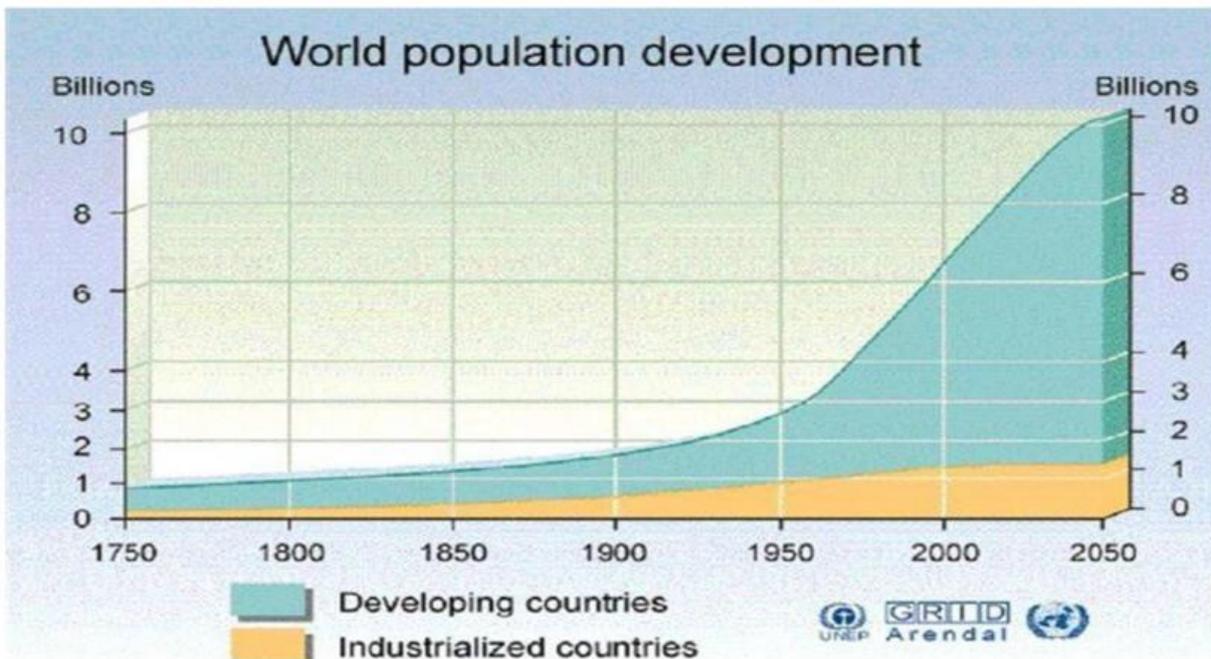




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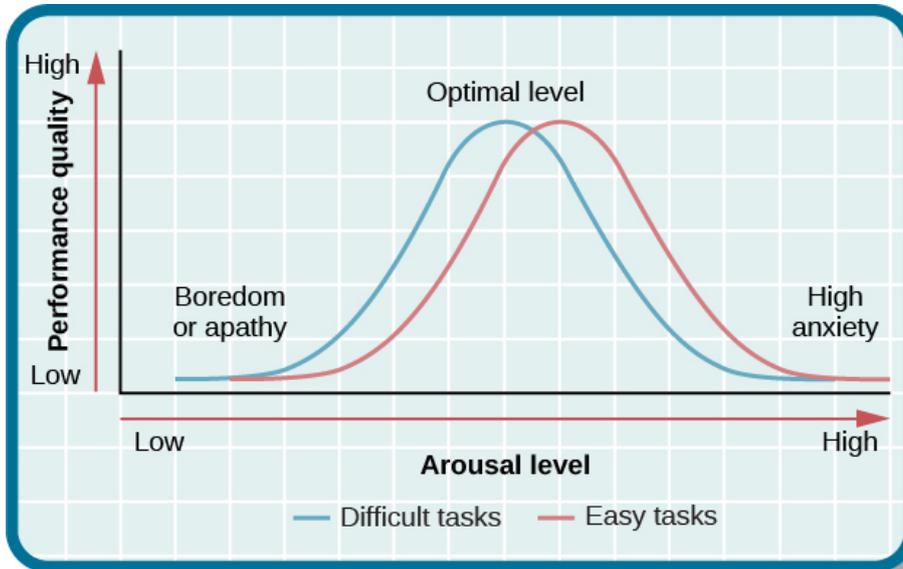


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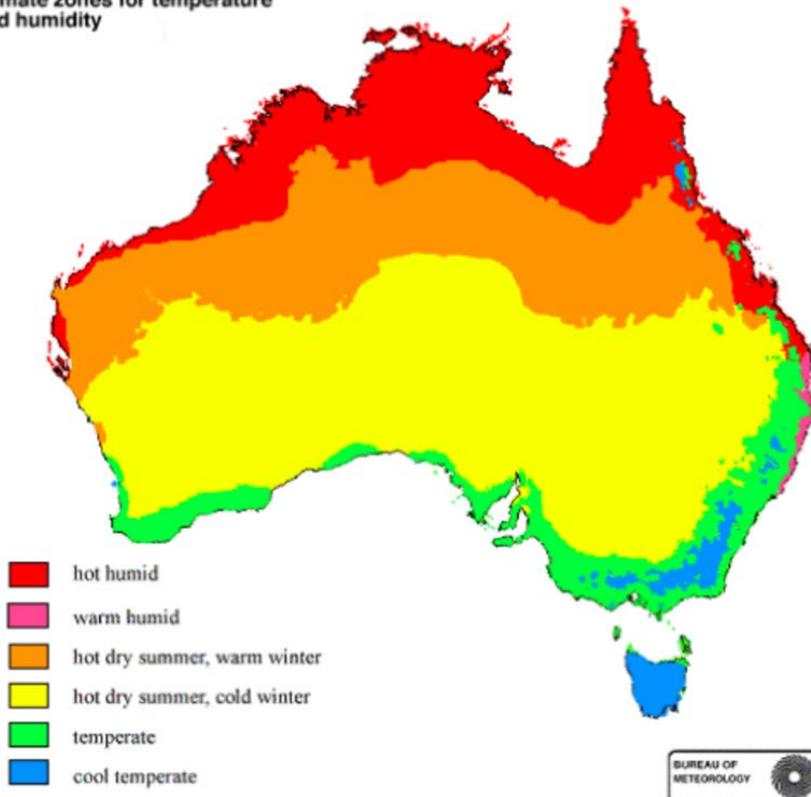


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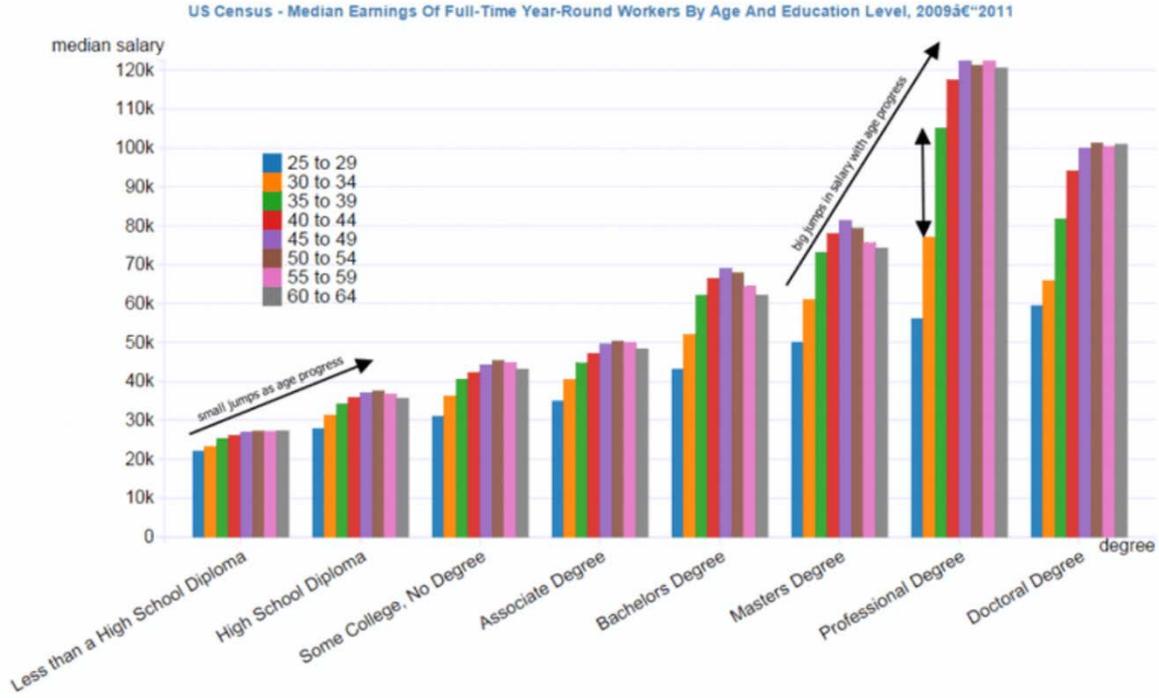
99

Climate zones for temperature and humidity



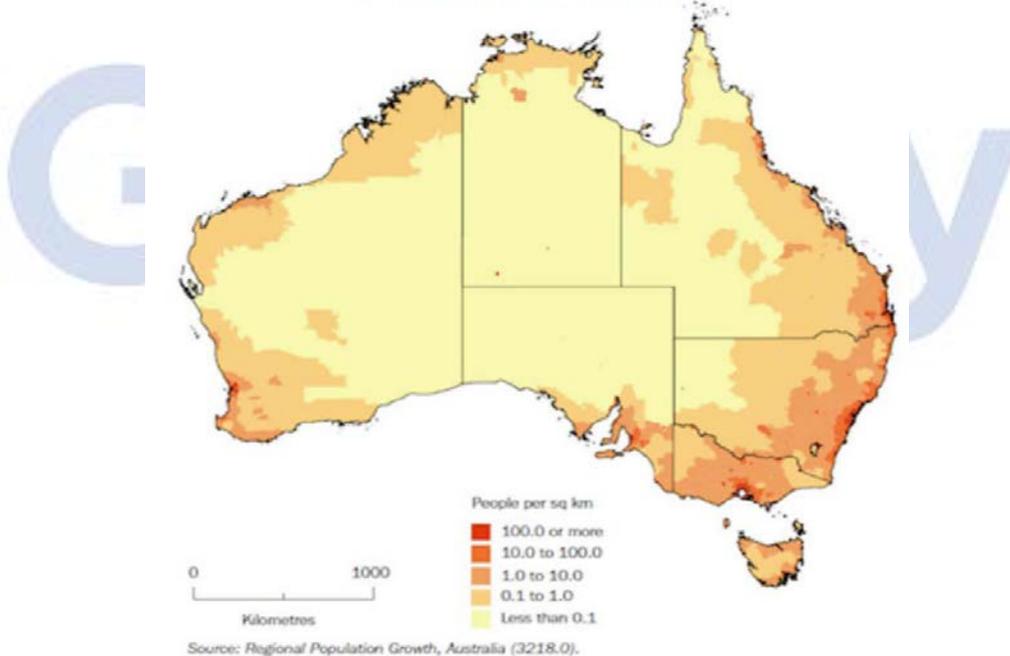


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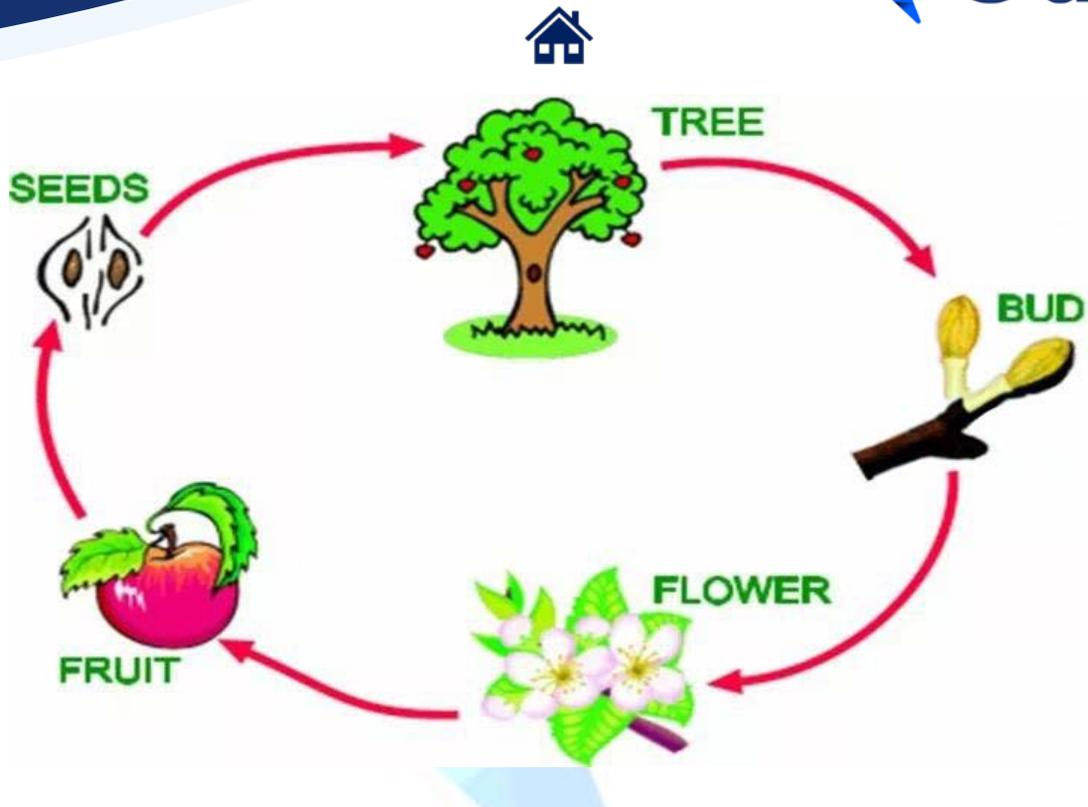


101

7.14 POPULATION DENSITY—June 2010



102



103

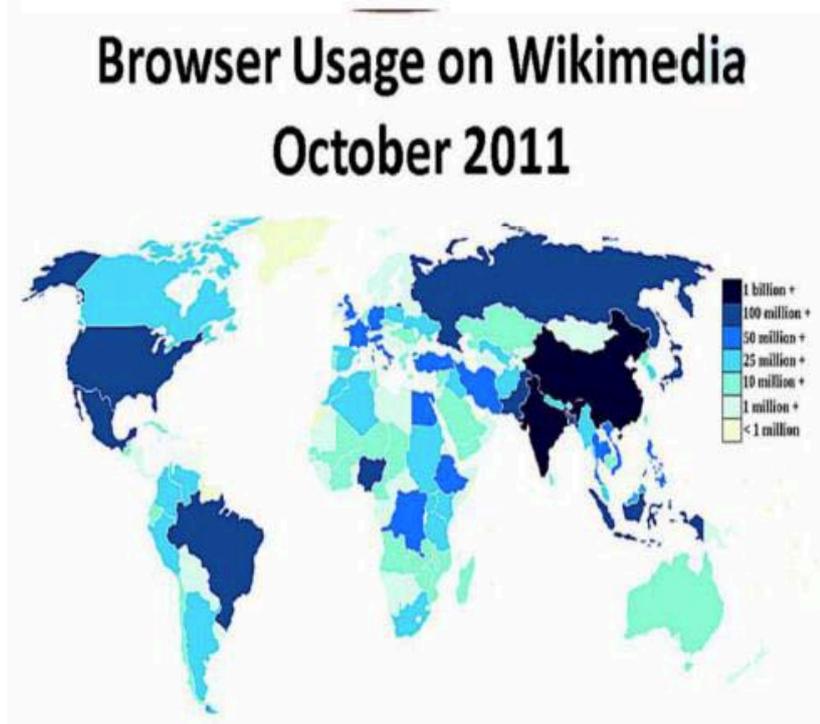
Top 10 Emerging Markets 2012-2017



Source: Global Intelligence Alliance, Business Perspectives on Emerging Markets 2012-2017 Survey, Qn: Which are the top 5 Emerging Markets for your industry over the next 5 years? N=29

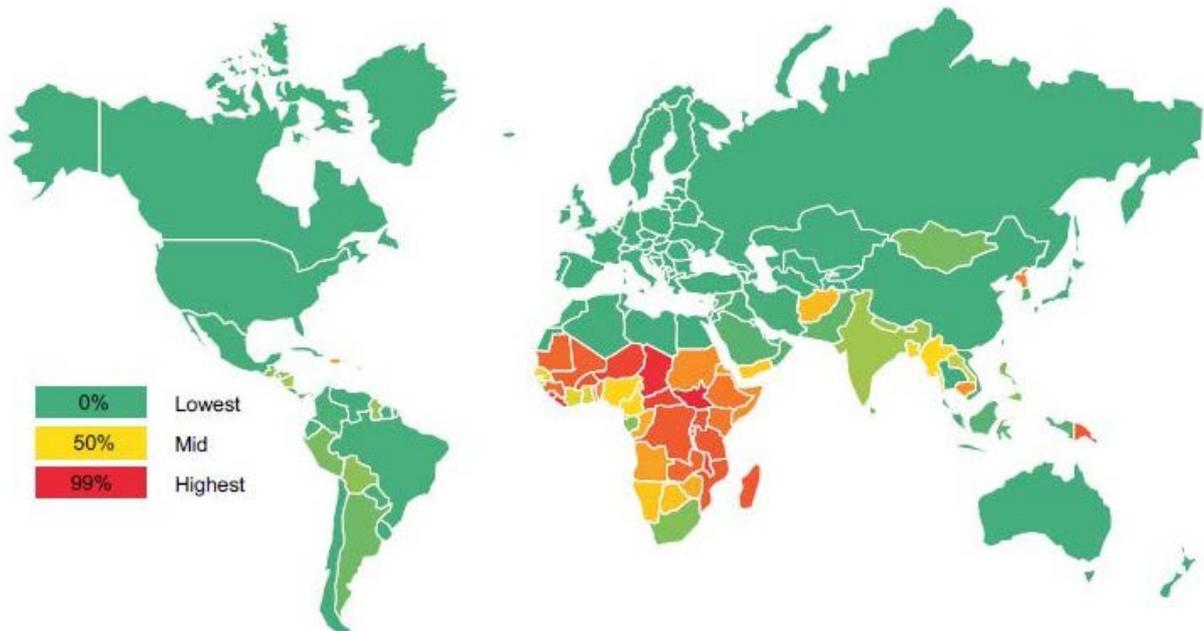


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105

Share of population without grid access (percent of total)

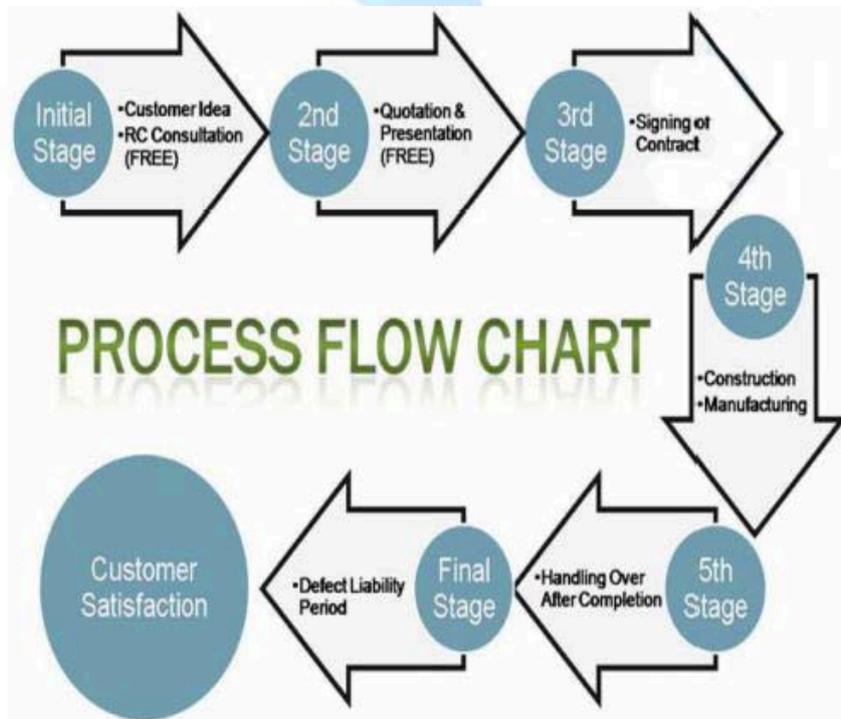




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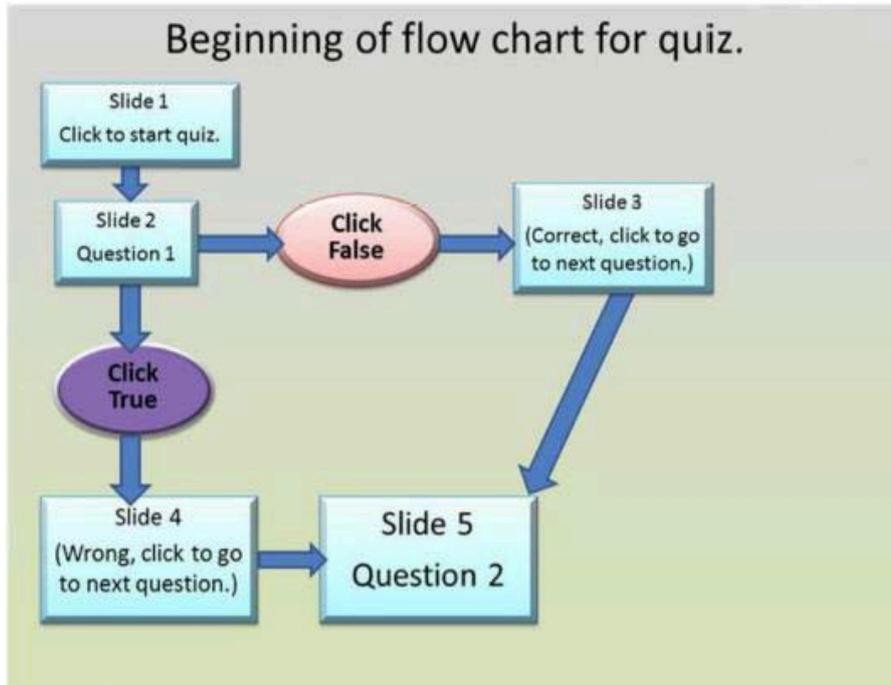


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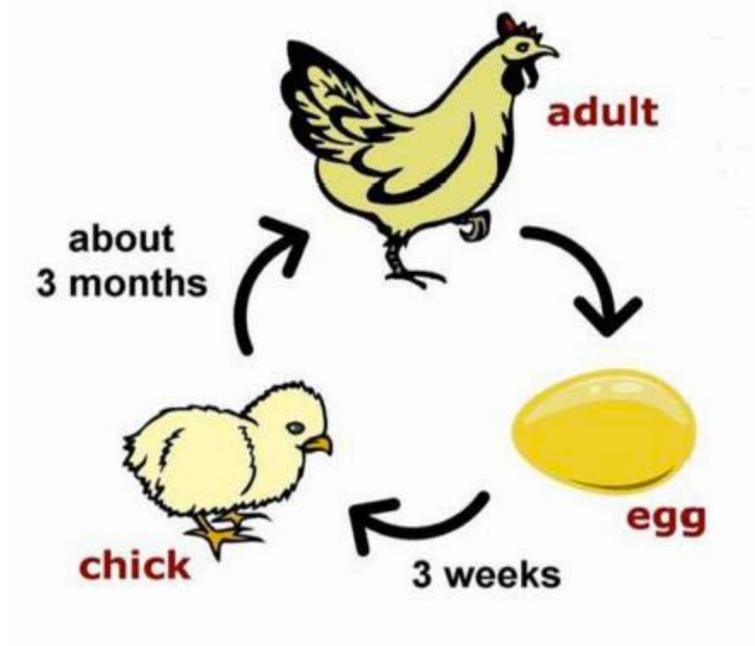


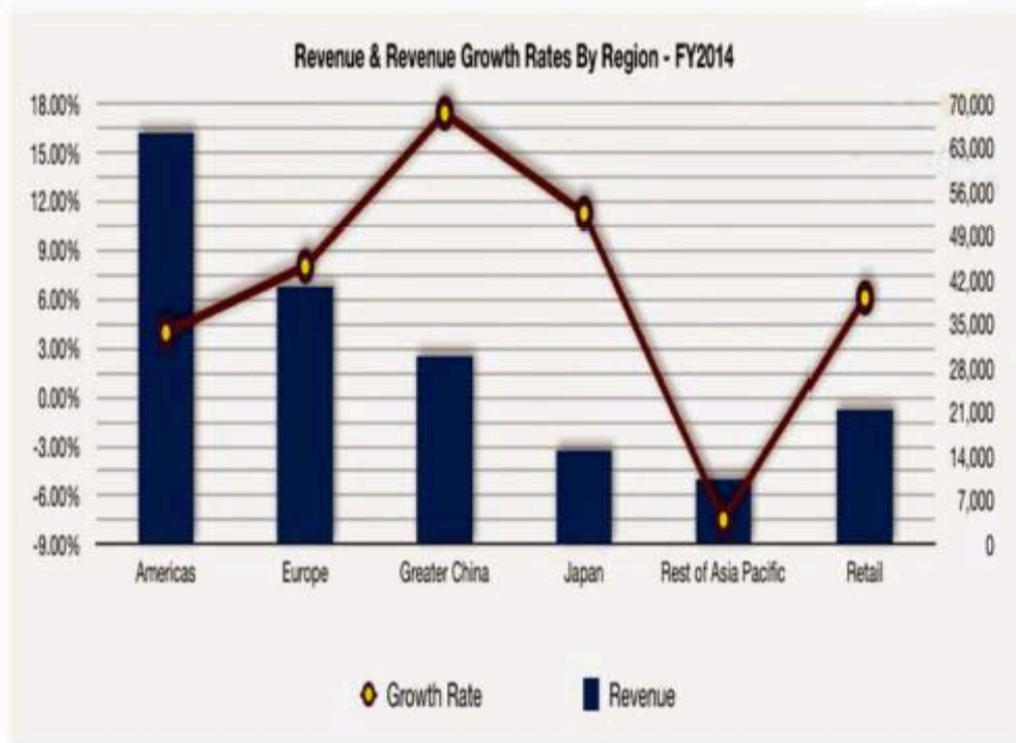


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109





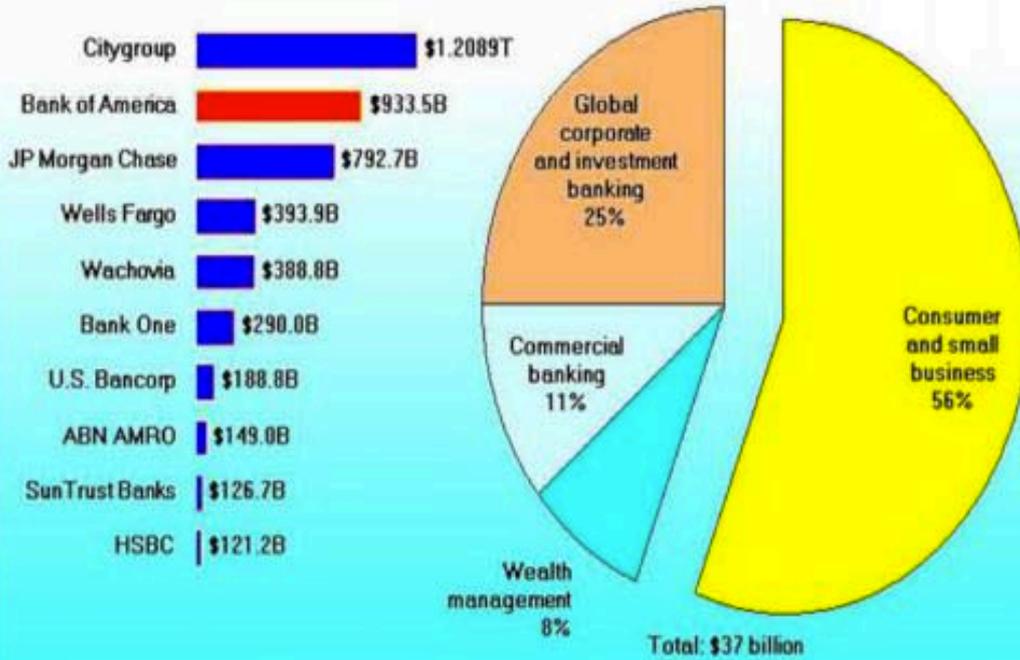
Gurully



Bank of America Bets on Consumer

Top US banks ranked by assets

Bank of America - Revenue by segment* for the first nine months of the year



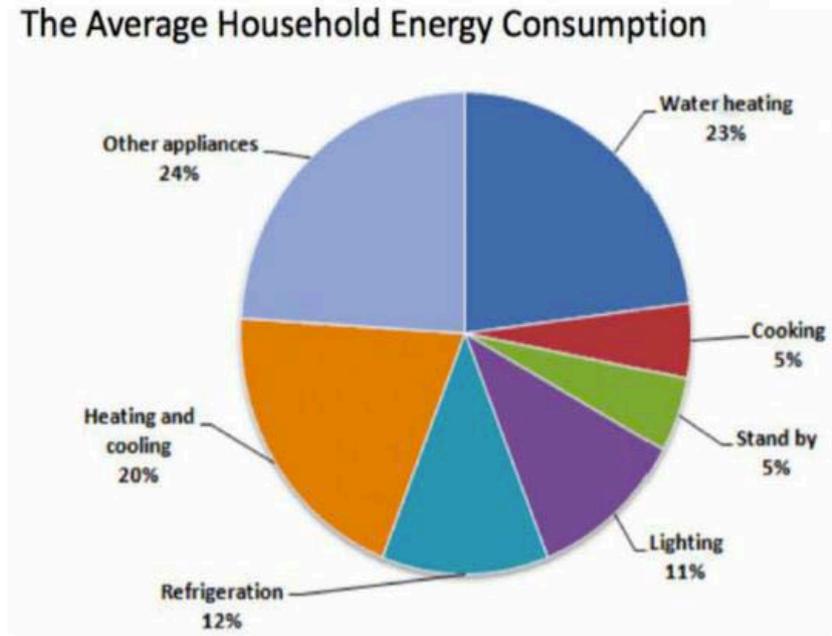
Source: Wall Street Journal, 10-27-2003, page A1.





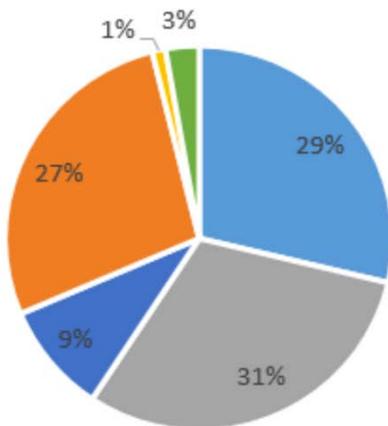
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The Average Household Energy Consumption

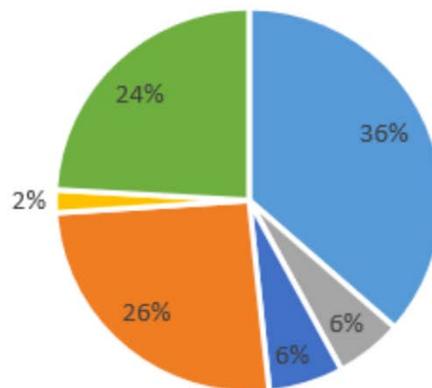


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Female



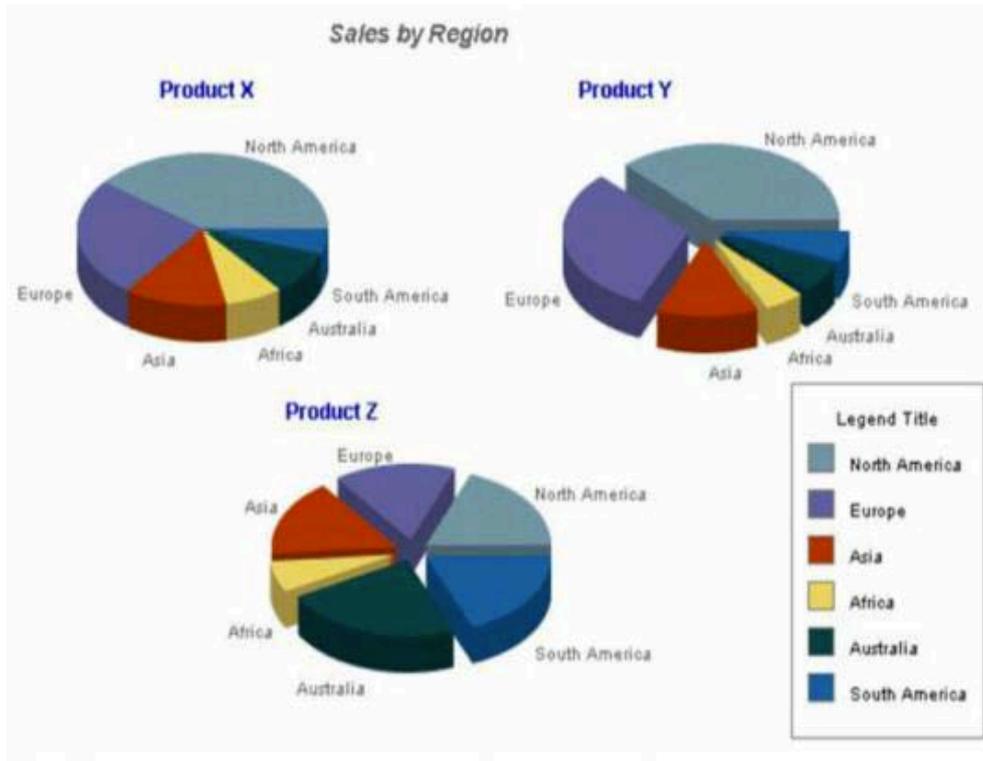
Male



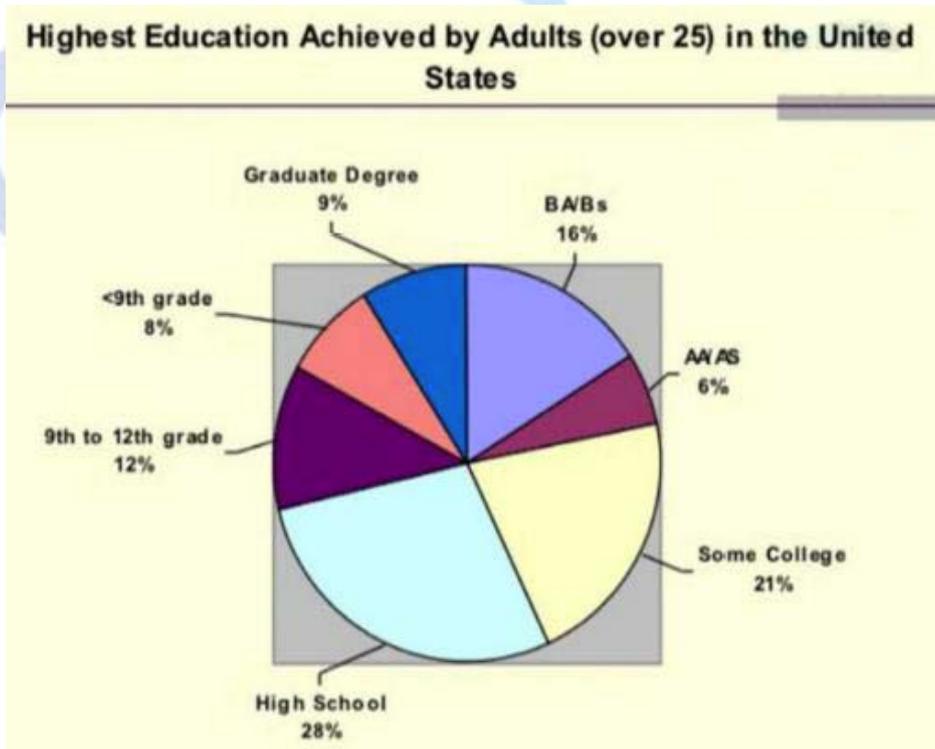
Manual	Non-manual
■ Craft or similar	■ Managerial and professional
■ General labourers	■ Clerical or related
■ Other manual	■ Other non-manual



114



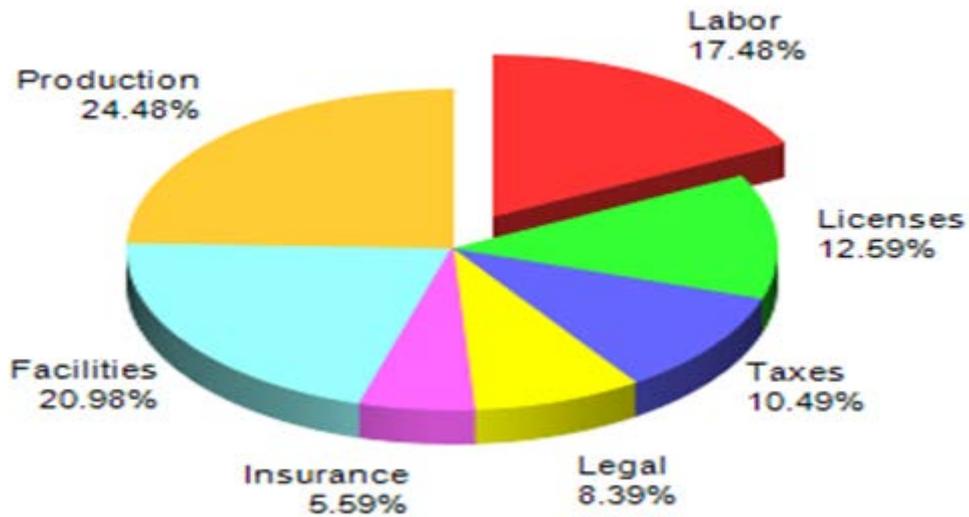
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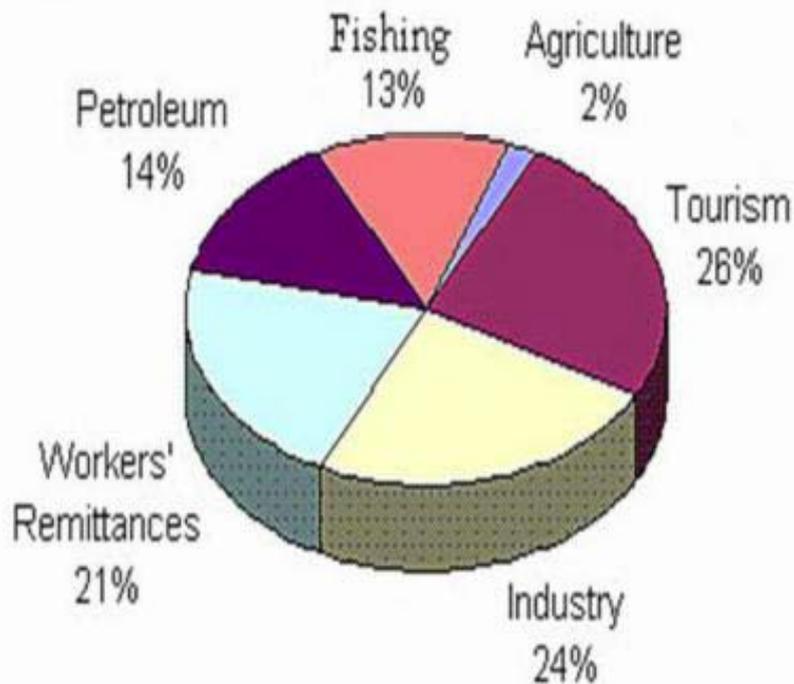
116

Project Cost Breakdown



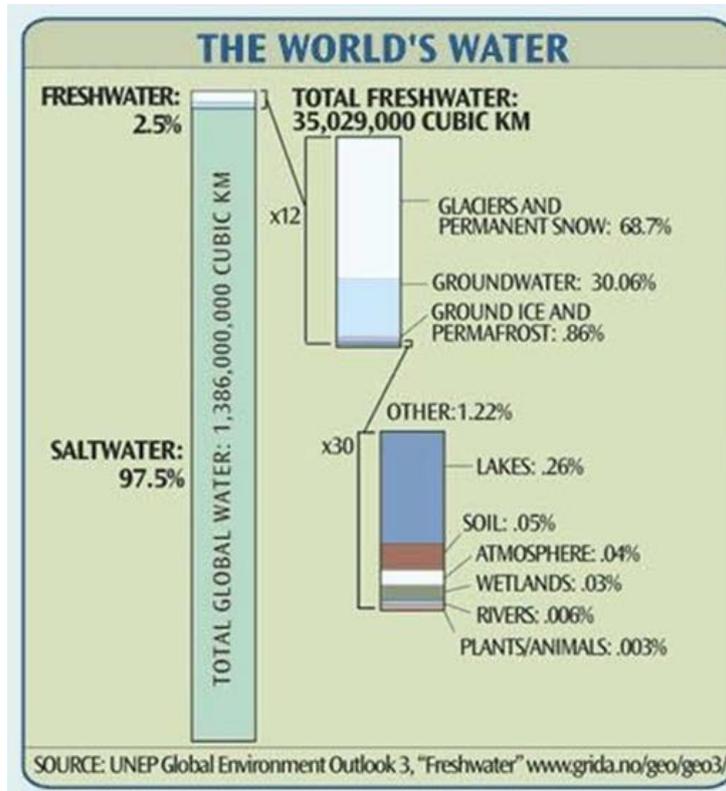
117

Morocco: Income from various economic sectors: 2003





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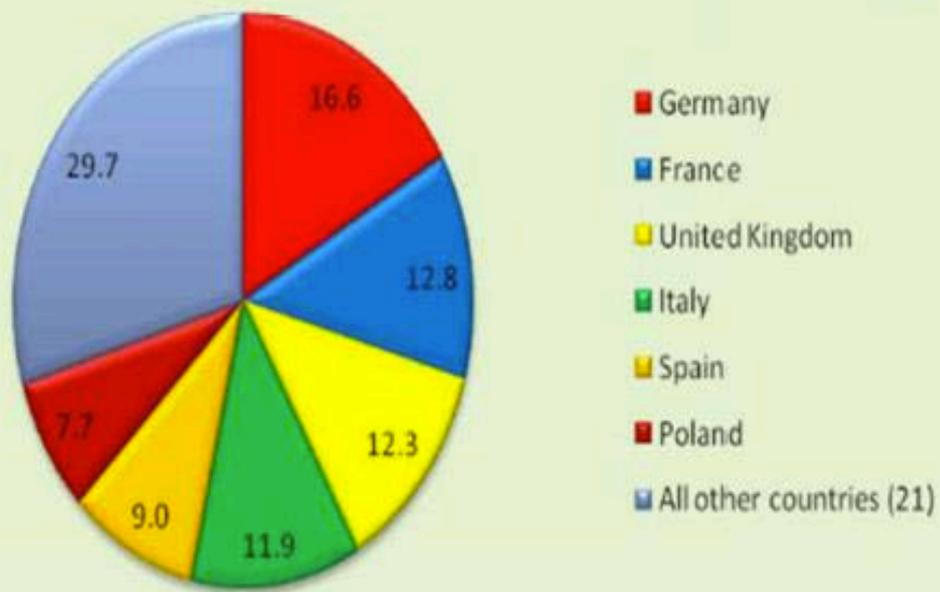


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Population of Countries of the European Union in 2007 by percentage



Gurully



Retell Lecture

1. Flipping a coin may not be the fairest way to settle disputes. About a decade ago, statistician Persia Deacons started to wonder if the outcome of a coin flip really is just a matter of chance. He had Harvard University engineers build him a mechanical coin flipper. Deacons, now at Stanford University, found that if a coin is launched exactly the same way, it lands exactly the same way. The randomness in a coin toss, it appears, is introduced by sloppy humans. Each human-generated flip has a different height and speed and is caught at a different angle, giving different outcomes. But using high speed cameras and equations, Diaconis and colleagues have now found that even though humans are largely unpredictable coin flippers, there's still a bias built-in, if a coin starts out heads, it ends up heads when caught more often than it does tails. NPR's David Kestenbaum reports.
2. In 2008 Melbourne joined UNESCO creative cities network. Melbourne has breadth, depth and vibrancy of the city's literary culture. Melbourne supports a diverse range of writers, a prosperous publishing industry, a successful culture of independent bookselling, a wide variety of literary organizations and a healthy culture of reading and engagement in events and festivals.
3. For better or worse, we live in a world profoundly affected by Sigmund Freud. If I had to ask you to name a famous psychologist, the answer of most of you would be Freud. He was the most famous psychologist ever and he had a profound influence on the 20th and 21st century. Some biographical information: he was born in the 1850s. He spent most of his life in Vienna, Austria, but he died in London and he escaped to London soon after retreating there at the beginning of World War Two as the Nazis began to



occupy where he lived. He was one of the most famous scholars ever but he was not known for any single discovery. Instead, he was known for the development of mind, one that he developed over the span of many decades

4. "Hello, I'm David Brown, curator of Italian and Spanish paintings at the National Gallery of Art. The treasures in our exhibition, The Art of Power, Royal Armor and Portraits from Imperial Spain, come from the royal armory in Madrid. They range from the 15th to the 17th century and include some of the finest examples of Renaissance armor in the world. Fabricated by master craftsmen and artists, the flower of Spanish royalty. This is parade armor, made for show not combat. In form it looks back to a world tournaments, jousts and noble gesture. And among the images worked into the steel is something quite different, a subtle advertising campaign for the Imperial ambitions of the Spanish monarchy and the Hapsburg dynasty. Those who wore it took the words Holy, Roman and Empire very seriously"
5. Paris is very old—there has been a settlement there for at least 6000 years and its shape has been determined in part by the River Seine, and in part by the edicts of France's rulers. But the great boulevards we admire today are relatively new, and were constructed to prevent any more barricades being created by the rebellious population; that work was carried out in the middle 19th century. The earlier Paris had been in part a maze of narrow streets and alleyways. But you can imagine that the work was not only highly expensive, but caused great distress among the half a million or so residents whose houses were simply razed, and whose neighborhoods disappeared. What is done cannot usually be undone, especially when buildings are torn down.
6. The Skoog is a new university accessible musical instrument. It is designed to use by children or adults with special needs or in fact be used by anyone. It's



soft, it's easy to play, it's robust and it can be customized to suit anyone's abilities. The Skoog helps students with special needs by allowing them to get involved in making music themselves. It's an instrument that they can play it and they can take ownership of and start creating their own sounds and music. Traditional instruments are the shape and size and made of the materials they are because of the sound that they need to make. If you want to make a sound like a plucked string, you need a string and it needs to be under tension, whereas with a Skoog, because it's a mixture of software and a sensor, then thus the computer can handle making the sound. And so we can design an object that's designed to be touched and designed to be played with. In developing the screen and working with kids in the schools and in the classrooms, it's really helped us make the Skoog something that's usable by the children themselves. They've informed us massively on how it needs to work and they've given their opinions on colors and designs. And just the feedback they've given to us has been just marvelous. It's just so enriching and it's really inspiring to actually work with these kids, particularly when you can provide them with an ability to start to play their own music as opposed to just taking part through listening and listening to other musicians and really learning from.

7. There are some adverse effects of climate changes to agricultural productions because some lands are unsuitable for growing crops. There will be millions of people facing hunger in Africa in the future. Climate change will result in less production and less food. It is difficult for developing countries to deal with climate change due to their financial status and other issues. There are many people living in hunger especially in Africa. Climate change has devastating effects on world economy. The tropical areas on earth are dry and hot, and are originally not suitable for food production. The change of the



climate leads to extreme weather conditions such as flood and hurricane, which exacerbates the food production. As a result, it leads to a continuous decline in food supply annually around 10-17%. And this trend is perceived to be continued in the future by 2070. The regions suffering the most will be some African countries

8. There are some adverse effects of climate changes to agricultural productions because some lands are unsuitable for growing crops. There will be millions of people facing hunger in Africa in the future. Climate change will result in less production and less food. It is difficult for developing countries to deal with climate change due to their financial status and other issues. There are many people living in hunger especially in Africa. Climate change has devastating effects on world economy. The tropical areas on earth are dry and hot, and are originally not suitable for food production. The change of the climate leads to extreme weather conditions such as flood and hurricane, which exacerbates the food production. As a result, it leads to a continuous decline in food supply annually around 10-17%. And this trend is perceived to be continued in the future by 2070. The regions suffering the most will be some African countries
9. But I am going to focus on today, is really different larger forms of genetic variation involving essentially gains losses and inversions of sequence. So showing here is a 30 in the simple diagram. We have an example of some structural variation operationally defined as events greater than a KB in size. So we have pieces of DNA that sometimes become deleted. We have pieces of DNA that sometimes become duplicated on chromosomes and regions which can be in fact inverted or turned around with respect to another orientation. So this very busy map here represents probably about three years of work in my lab, just to kind of characterize the general pattern of structural



variation in eight human genomes. So shown here are different human chromosomes for from African, and for from non-African the distinctions really aren't that important, but what I'm showing you here, is the presence of insertions deletions and inversions as red as blue red and green and so each line here represents a different human genome that has been analyzed looking for structural variation of events greater than 5,000 base pairs in size, so a couple things you can maybe get from. this is you can see that there's a lot of genetic variation out there , that is above the level of single base pair change and most of the events that you're seeing here are essentially inherited , but we now know based on studying roughly about 2,000 human genomes, but there's a significant fraction of very large events often hundreds of KB in size that are either individually specific or specific to specific families , so this is kind of changing our view of the dynamic nature of the human genome.

10. The result of the scientific research shows that all metals response to the heat. In recent years, people used to think that metal is supposed to blend under the heat, but sometimes it doesn't behave, so because atoms in the metal have random processes. The heat can accelerate the processes but won't change the essence of random, so it could violate what we used to think. Hydration heat characteristics of blended cement containing up to 50% steel slag were studied at 25 °C, 45 °C and 60 °C by isothermal calorimeter. Kinetics equations were used to explore kinetics of blended cement. Kinetics parameters, n, K, and Ea, were calculated and analyzed. Results indicated that the activity of steel slag was very low. Steel slag accelerated the hydration of aluminates but decelerated the hydration of silicates in cement clinker. Small amount of steel slag affected little the hydration process of cement. Elevated temperature obviously promoted the hydration of blended



cement. The hydration of blended cement containing no more than 35% steel slag was controlled by nucleation of hydrates in acceleration period and by diffusion of ions in decay period. The hydration of blended cement containing 50% steel slag was mostly dominated by phase boundary reaction, then directly by diffusion. E_a increased with increasing steel slag content.

11. Volunteers in scientific studies sometimes get compensated. The payment can be cash, a gift card, or something almost worthless: "It's amazing what people will do for a lollipop when they've had a few drinks." Simon Moore is a professor of public health research at Cardiff University in the U.K. And the lollipops were for people who agreed to blow into a breathalyzer, while out on a Friday or Saturday night in Wales—more than 1,800 people agreed to the exchange. And the scores covered a wide range of alcohol intake. "So that would go from zero upwards. I think one of the largest scores we had was 120, which is a near-death experience. The researchers also gave a subset of volunteers a short survey about drinking habits and health risks. Questions like: "How drunk are you right now?" and "How extreme has your drinking been tonight?" And they found that even very drunk respondents felt relatively more sober, if they were surrounded by even drunker people. In other words: our perception of intoxication—and its risks—is relative. "So this is the point, as you change context, perceptions will change, although the absolute level of alcohol in their system doesn't change." The study is in the journal BMC Public Health Moore says one way to use this finding is for better city zoning. "In the United Kingdom for example there's been a big push to put more premises that sell alcohol in the same district, in the same area. And what this does is create a concentration of drinkers. So what we might argue from this is, well let's try to break that up a little bit.



12. A lot of people in the United States are coffee drinkers. Over the last few years, a trend has been developing to introduce premium specially blended coffees known as gourmet coffees into the America market. Boston seems to have been the birthplace of this trend. In fact, major gourmet coffee merchants from other cities like Seattle, San Francisco, came to Boston where today they are engaged in a kind of coffee war with Boston's merchants. They are all competing for a significant share of the gourmet coffee market. Surprisingly the competition among these leading gourmet coffee businesses will not hurt any of them. Experts predict that the gourmet coffee market in the United States is growing and will continue to grow to the point that gourmet coffee will soon capture a half of what is now a 1.5 million- dollar market and will be an eight-milliondollar market by 1999. Studies have shown that coffee drinkers who convert to gourmet coffee seldom go back to the regular brands found in supermarkets.
13. There is no denying that the concept of family has certainly changed in American society over the last few decades. Statistics continue to show that fewer Americans are getting married, and those who do so are having fewer children or none at all. More marriages are ending in divorce. More people are living alone, cohabiting with someone, or marrying more than once in a lifetime and creating stepfamilies. Traditional families once dominated every neighbourhood. A traditional family consists of a husband and wife, plus their children, whether biological or adopted, if they have any Today, American society displays greater diversity, and many American households can be considered non-traditional under this definition. Family structures that may be considered non-traditional or alternative include single parenthood, cohabitation, samesex families, and polygamy. Let's take a brief look at each of these. Single parenthood was fairly common prior to the 20th century due



to the more frequent deaths of spouses. But at that time, there was a certain stigma surrounding being a single parent. Today, single parenthood is considered more acceptable. One-parent families may still result from the death of a significant other, but now also come about through circumstances, including a parent's choice or divorce. Cohabitation is the sharing of a household by an unmarried couple. This arrangement continues to gain popularity in the U.S., and cohabiting couples and their children made up approximately 15 million households according to the 2012 U.S. Census. Cohabitation can be seen as an alternative form of marriage.

14. But you can see from the relatively crooked and narrow streets of the city of Rome as they look from above today, you can see that again, the city grew in a fairly ad hoc way, as I mentioned. It wasn't planned all at once. It just grew up over time, beginning in the eighth century B.C. Now this is interesting. Because what we know about the Romans is when they were left to their own devices and they could build the city from scratch, they didn't let it grow in an ad hoc way. They, they structured it in a, in a very care-, very methodical way. That was basically based on military strategy, military planning. The Romans they couldn't have conquered the world without obviously having a masterful military enterprise. And they everywhere they went on their various campaigns, their various military campaigns. They would build, build camps and those camps were always laid out in a very geometric plan along a grid, usually square or rectangular.
15. I have said before that you can't have a civilization that doesn't have art. When we think about the great civilizations historically. All of them had great production of culture and art. Because a society has to be able to observe itself. And the sophistication of the great civilizations were their ability to look at themselves and what allows a society to do that Are the producers of Art



and Culture mirror back? To the core of the society. Exactly what is being produced at that moment ? How people are thinking of themselves and how individuals are relating to the social structure at that time? Art is the vehicle through which we understand that. Were you to take away art? What would be that mirror. How would we see what we are about? how would we understand what was going on in Paris? at the time of the impressionists when people were learning to see in a completely different way. Pre cinematograph appear all of these things are just emerging and here are people looking at the world in a very different way which was considered so radical at the time.

16. The history of software is of course very very new. And the whole IT industry is really only 67 years old which is extraordinary and to be so close to the birth of a major new technology, a major new discipline is quite remarkable given where we got to in those 67 years. And the progression has been not so much a progression as a stampede because Moore's Law, the rapid expansion in the power of computing and the rapid fall of the cost of computing and storage and communications has made it feasible for information technology to move into all sorts of areas of life that were never originally envisaged. What has happened is that there has been as I said a stampede for people to pick the low-hanging fruit. And that is what's guided the development of software and information technology over the past decades and continues to do so with a number of consequences that we will explore.
17. Let's say if I'm asking which source do you often use to get information. Newspaper? Radio? And the survey shows 62% of the people chose internet. You might be thinking I am going to say, how important the internet is, or how quickly it has changed the world for a few years. But what if I tell you this survey is conducted on the website global and mail.com? Our answer will be different. Because the people who did this survey on a website must be



frequent users of internet. This sample is a biased sample. So we have to pay attention to how a survey is conducted.

18. I think with our linguistic training we also get all this invisible training to be authorities, to be the people who know. It is part of that process that you come out as a world authority on your chosen subject. But when we move into working with communities, we have to recognise that the communities have to be the authority in their language. Actually, a woman in the class I'm teaching at Sydney at the moment, a career woman, expressed this very nicely, although she was talking about something else, she was distinguishing expertise from authority. And certainly linguists, because of our training we do, have expertise in certain very narrow areas of language, but we don't have the authority over what to do with that knowledge or what to do with other knowledge that the community produces. I guess for me the bottom line is languages are lost because of the dominance of one people over another. That's not rocket science, it's not hard to work that out. But then what that means is if in working with language revival we continue to hold the authority, we actually haven't done anything towards undoing how languages are lost in the first place, so in a sense the languages are still lost if the authority is still lost.
19. Thanks for this opportunity to speak about Australia's engagement with Asia from the perspective of trade and in particular to say a few words about what trade is doing in this, in this space. And I'm particularly pleased to be addressing trade and investment not just of course because these two things are inextricably linked but also of course because Australia reports to Australia's first ever Minister for trade and investment. Asia's importance to Australia's economy is growing by the day. It is one of the most important factors to consider. When assessing the International conditions for national



prosperity Asian demand for our exports has helped Australia manage the global financial crisis better than most other developed economies. In fact, probably better than all other developed economies. An investment from Asia has added to the productive capacity of the economy and to overall productivity in 2013. Seven of our top ten export markets were in Asia and represented 65 percent of our total exports. Asian markets and Australia's geographic proximity are critical not just for our trade ties and our capacity to access important global supply chains, but also to the level of foreign investment in Australia. FDI has grown markedly in Australia over the past decade. In fact it has more than doubled from about two hundred ninety two billion dollars to 630 billion dollars in 2013.

20. This simulation shows what you might see. If you are orbiting a black hole. The light and position of background stars around the hole are distorted by its gravity and they seem to spin around. On the right the constellation Orion appears to approach the event horizon the boundary from which nothing can escape. Orion stars look like they become separated and get spun around. Once the hole has passed by Orion reappears on the left and looks normal again. Users can also experiment with different scenarios. This is what you might see if you were traveling towards a black hole with rocket engines slowing your descent. Another simulation mimics free fall into a hole. In the middle the light of the entire universe appears to be concentrated in a bright ring.
21. This illustration often used is the one that the monkeys and the typewriters. Ok, we have a monkey sitting at a typewriter and the claim here is basically if you leave chance in time long enough you will get life, don't worry about it, yes, its's strange, yes, it's wonderful, but leave enough matter 600 million years on earth and you will have life. So, the monkey sitting at the typewriter the



chances are eventually he produces the complete works of Shakespeare so what's the problem. So, there's no problem. There's no issue, right? You just leave it long enough and you'll find. And one key striker seconds, the monkey might well eventually get to you the complete works of Shakespeare but he doesn't manage to do it in 600 million years. So, what I decided to do is to run the numbers. I, instead of saying typing the complete work of Shakespeare, I just run the numbers for how long would it take a monkey typing one key striker a second. To type "to be or not to be that is the question'. Right? On average how long is it gonna take my monkey friend one keystroke a second. I don't know how you think it would be. Maybe you could have a guess. Would it be less or more than 600 million years, which is the period life on earth isn't supposed to have emerge within and when I run the numbers" to be or not to be is the question' takes 12.6 trillion years to type just that phrase and a DNA string has got as much as information the encyclopedia Britannica. Are we saying that something of that complexity emerges by chance undirected within 600 million years? Again, it's mathematically possible but it's so incredibly unlikely that it would have that it tilts me in favour of the Christian story in which God creating life, simply a question of saying let that be and there was.

22. Well, it's about whether you can achieve a win-win solution, whether you can achieve economic growth which brings wealth in order to cut poverty without damaging the biodiversity. And the argument is that if you want to protect biodiversity, you have to focus on that as a goal; but if you do that, you have... you run the risk of hurting the poor and you also run the risk of inconveniencing and reducing the economic growth. We use the developed and industrialized countries to see this argument, this axis argued about with, let us say, a government wishing to start drilling for oil in place X which is full of wildlife, and



wildlife conservation society is urging them not to on the grounds that it's a wilderness refuge. We use to that debate. What I'm saying is that in the developing world there's a third axis and it's a complex one.

23. For better or worse, we live in a world profoundly affected by Sigmund Freud. If I had to ask you to name a famous psychologist, the answer of most of you would be Freud. He was the most famous psychologist ever and he had a profound influence on the 20th and 21st century. Some biographical information: he was born in the 1850s. He spent most of his life in Vienna, Austria, but he died in London and he escaped to London soon after retreating there at the beginning of World War Two as the Nazis began to occupy where he lived. He was one of the most famous scholars ever but he was not known for any single discovery. Instead, he was known for the development of an encompassing theory of mind, one that he developed over the span of many decades.
24. Indeed, the library. We've all been to a historic library. We've all enjoyed the smell of a historic library. But what is it? And what does it mean? When we've recently, when at UCL Center for Sustainable Heritage, we've recently been asked to assess the environment at another historical library at Saint Paul's Cathedral, the Wren library, an incredible place. And it has a such an intensive smell of old books, and we were also asked for the first time really I was actually taken aback by the brief, we were asked what you do please preserve the smell. It is so important to our audience. It is so important how people perceive the library. So, that is, that was quite an important message in our research. And indeed the smell is an important way of how we communicate with the environment. This piece of research was done by an advertising company because advertisers are so interested in how we, how we interact with each other and the environment. And we see that the



majority of people use sight obviously to interact with the environment, but on the second place, we see the smell is also very, very important.

25. The Skoog is a new university accessible musical instrument. It is designed to use by children or adults with special needs or in fact be used by anyone. It's soft, it's easy to play, it's robust and it can be customized to suit anyone's abilities. The Skoog helps students with special needs by allowing them to get involved in making music themselves. It's an instrument that they can play it and they can take ownership of and start creating their own sounds and music. Traditional instruments are the shape and size and made of the materials they are because of the sound that they need to make. If you want to make a sound like a plucked string, you need a string and it needs to be under tension, whereas with a Skoog, because it's a mixture of software and a sensor, then thus the computer can handle making the sound. And so we can design an object that's designed to be touched and designed to be played with. In developing the screen and working with kids in the schools and in the classrooms, it's really helped us make the Skoog something that's usable by the children themselves. They've informed us massively on how it needs to work and they've given their opinions on colors and designs. And just the feedback they've given to us has been just marvelous. It's just so enriching and it's really inspiring to actually work with these kids, particularly when you can provide them with an ability to start to playing their own music as opposed to just taking part through listening and listening to other musicians and really learning from.
26. In today's lecture I'm going to talk about changes in air pollution since the middle of the last century and what has created these changes. So, um - by the 1950s, air pollution was very visible with frequent thick black fogs known as 'smogs' in many large cities around the world. The main source of this pollution



was from factories and it caused severe health problems. For example, a particularly severe smog in London in 1952 caused over four thousand deaths. Obviously, something had to be done and in 1956 a Clean Air Act was introduced in Britain. This addressed the pollution from factories and the smogs soon disappeared. However, as you know, these days air pollution is still a big issue. The main difference between now and the 1950s is that you can't see it - it's invisible. Also, the main source of pollution now is from cars and lorries, and although these don't produce visible signs, this air pollution is still a significant risk to health. And one of the key factors in the rise of this type of pollution is that we have all become much more vehicle-dependent. There are far more cars and lorries, trains and planes than in the 1950s and this is now the main source of air pollution around the world.

27. The western countries women are becoming more and more reluctant to give birth to babies. However, the male's status in society remains as strong as it ever has in recent years. The birth rates increased during 20's century but it starts to decrease over these last two decades. In the year 2000, as an example, the birth rate remained at around 1%. There are even some negative birth rates in other countries. Birth rates dropped to its lowest point that has never been seen in the society. It also has impacts on male in the society especially young man, and it might have some connection with unemployment rates as well.
28. So, we were founded just over ten years ago, when I was in the Royal Academy, a museum in the center of London, with my three children, at the Aztec exhibition. I don't know if any of you saw it. I had an older child and two younger children, twins, strapped in a pushchair, and one of my children, three years old, shouted and I've never denied he shouted he shouted, 'Monster, monster!' At this statue which looked just like a monster, had snakes for hair, a



big beak for a nose. And, I thought, this is fantastic. I've got a three-year-old that's appreciating art. How good can it get? So, I bent down and I said, 'Yes, it looks just like a monster' And, at that moment, a room warden came over, a gallery assistant came over and said we were being too noisy, and threw us out to the wrong family. I was, at that time, a journalist with The Guardian newspaper, and two days later wrote a big piece in The Guardian about being thrown out of the Royal Academy. What was really interesting was, by the end of that day, we had had, at the paper, over 500 emails from other families saying, museums aren't working for us. Let's try and make it work. So, that's what we did. In the Guardian, we set up a campaign. We called it the Kids in Museums campaign, but it didn't really exist. It was just a few pages. We ran loads of stories on it; I began touring the country talking about how to make your museum family-friendly.

29. Absolutely. There's a lot of interest in what forms those clouds. Why are those clouds there, why do they stick around? At the center of every cloud drop is a particle. You can't grow a cloud drop without having a particle there for the water to condense on. The key questions that people have not directly addressed until very recently is what actually forms those clouds. And so, the ones that you're looking at over the ocean, it turns out sea salt is a very effective nucleator for forming clouds, so there's a really good chance that those are loaded with sea salt. But as you go inland you start to have pollution come from all different kinds of sources, and so different sources form clouds more effectively than others. And we're trying to unravel which sources are actually contributing to the clouds. The clouds are incredibly important players in climate change in that they reflect the light back to space, and so they're keeping things much, much cooler than they would be if they weren't there. They also play a huge role in regional weather. So we're



actually starting to see shifts where having more pollution input into the clouds is affecting weather patterns, and in particular it's actually reducing the amount of precipitation, so we're starting to see drought in areas with super high levels of air pollution.

30. Wilson came then from a different world and he became the focal point of a broad mainstream American culture that thought that modern literature and wanted modern literature to be able to be read and appreciated by ordinary people. They were not modernists in an abstract sense and certainly some of them like TS Eliot and Faulkner were too difficult for some of their writings to be read by ordinary people, but this was a world before the division between the brows or between elite or whatever had established itself as part of our consciousness. Wilson was a major player in the successful effort of his generation to establish at the heart of American life and innovative literature that would equal the great cultures of Europe. And he knew that the great cultures of Europe were there he was not a product of a narrow American Studies kind of training at all. He joined a high artistic standard with an openness to all experience and a belief that literature was as much a part of life for everyone as conversation. He thought that Proust and Joyce and Yeats and Eliot could and should be read by ordinary Americans and helped that to happen. Wilson was a very various man over a period of almost 50 years. He was a dedicated a literary journalist, an investigative reporter, a brilliant memoirist and a dedicated journal keeper.
31. And our survey, over 100 CEOs who had recently been through an acquisition or merger were asked which areas of their activities needed the most effort. As you can see, the most frequent response to this question was that information technology requires the most integration effort. According to 58 percent of those we surveyed, IT was the most time consuming and needed



the most work. This is understandable as many of the IT issues are extremely complex and the consequences of any change in IT can have a significant impact. The key is how quickly and effectively IT integration can be achieved and there has to be a clear understanding of the consequences there maybe of not getting it right. The two other areas requiring significant attention, sales, marketing and business development on the one hand and financial management on the other, both were selected by forty nine percent of the respondents.

32. People forget things every day including experiences, feelings and thoughts. We call this process biological forgetting. Remembering is hard for people, and people try to overcome biological forgetting. Human' memory is not fixed, but it can be reconstructed and shaped by the past. Since ancestors, we have always been trying to improve our memory.
33. Soot, which comes from combustion of many different things, is black so it's a strong absorber. In fact, it's second only to CO₂ in terms of warming, so it's actually ahead of methane, which you hear a lot about. The interesting thing about soot and aerosols' impact on climate is that their lifetimes are so much shorter. So if we can reduce the soot we can make changes within months versus tens of years. It's not to say we should ignore the CO₂ and the greenhouse gases but it could buy us some time while we actually do the right strategies to reduce the greenhouse gases.
34. To be a successful entrepreneur, you should have good ideas, but the definition of a good idea varies depending on whom you ask. A great idea should have several features. Firstly, the great idea should be various and novel. Secondly, the great idea should be unique, which means no one has thought about it. Thirdly, it is essential for great ideas to be transformative and productive. All ideas are essentially a combination of other smaller ideas,



but this doesn't mean they can't be unique. Merely copying doesn't make anything idiosyncratic, it's the individuality that one puts in which makes a concept stand out. Constant innovation leaves no room for stagnation and thus, adds on to the basic idea, effectively making it unique. Unique ideas are inspired by basic things, they are simply extensions of pre-existing notions. And, an idea or a concept is unique only when it transcends its predecessor and serves its purpose in a better and more precise way.

35. Well, what I want to focus on now is climate change, more specifically on the fact that climate change is a result of human activities. Now there has been some disagreement regarding the extent to which human activity can be blamed for climate change but I want to argue that there is evidence which clearly demonstrates that our own actions really are causing a genuine threat. The available evidence seems to indicate fairly conclusively that land and sea temperatures started to increase around 200 years ago. So, what's the significance of this! Well, 200 years ago roughly coincides with the beginning of the industrial revolution in the northern hemisphere. In other words, this was when our production of harmful gases really got going as a result of increased industrialization. Since that time our production of gases has accelerated due to the fact that not only has industry grown in size but it has also now spread to the southern hemisphere, indeed, most parts of the world. So, in the last 200 years, as industry has grown we can see a gradual rise in the temperatures which, to my mind is sufficient proof of the damaging effect of our actions and needless to say it's an issue which we need to address.
36. The history of software is of course very new. And the whole IT industry is really only 67 years old which is extraordinary and to be so close to the birth of a major new technology, a major new discipline is quite remarkable given where



we got to in those 67 years. And the progression has been not so much a progression as a stampede because Moore's Law, the rapid expansion in the power of computing and the rapid fall of the cost of computing and storage and communications has made it feasible for information technology to move into all sorts of areas of life that were never originally envisaged. What has happened is that there has been as I said a stampede for people to pick the low-hanging fruit. And that is what's guided the development of software and information technology over the past decades and continues to do so with a number of consequences that we will explore.

37. Most people think of astronomers as people who spend their time in cold observatories peering through telescopes every night. In fact, a typical astronomer spends most of his or her time analyzing data and may only be at the telescope a few weeks of the year. Some astronomers work on purely theoretical problems and never use a telescope at all. You might not know how rarely images are viewed directly through telescopes. The most common way to observe the skies is to photograph them. The process is very simple. First, a photographic plate is coated with a light-sensitive material. Most people think of astronomers as people who spend their time in cold observatories peering through telescopes every night. In fact, a typical astronomer spends most of his or her time analyzing data and may only be at the telescope a few weeks of the year. Some astronomers work on purely theoretical problems and never use a telescope at all. You might not know how rarely images are viewed directly through telescopes. The most common way to observe the skies is to photograph them. The process is very simple. First, a photographic plate is coated with a light-sensitive material.
38. Look at any photo of earth's night sight, and you see the planet lit up like a Christmas decoration. As the glowing lights of bustling cities expand, the



serenity of natural darkness wanes. But the repercussions are not just the loss of the starry night sky. Light pollution also affects animals who depend on a nighttime environment to survive. Many bird species use the stars to navigate at night. Baby sea turtles use moonlight reflected off the ocean to guide them back to the water. City lights can confuse them, and fear them off course. Humans are not immune, either. Excessive exposure to artificial light at night can increase the risk of sleep disorders and it's also been linked to obesity, depression, diabetes and even cancer.

39. You might think that most of the patients at sleep clinics are being treated for sleeplessness, commonly referred to as insomnia, but that is not the case. The majority of sleep-clinic patients suffer from disorders of excessive sleep, or "hypersomnia." While most insomniacs somehow manage to drag themselves through the day and function at acceptable, although not optimal levels, this is not so for people who suffer from hypersomnia. They are incapacitated by irresistible urges to sleep during the day, often in inappropriate situations--at business meetings, in supermarkets, or at parties. Even more dangerous is their failure to remain awake when driving or operating machinery. Falling asleep in such situations could obviously be life-threatening. Many hypersomniacs suffer from narcolepsy, for which the primary symptom is excessive daytime sleepiness. Though not apparent in childhood, this symptom most often appears for the first time during the teen years and continues throughout a person's life. The sleep attacks may occur as many as fifteen to twenty times during the course of the day and last for periods from fifteen minutes up to two hours. What can be done to help those suffering from narcolepsy? There are certain drugs that can help, and specialists suggest voluntary napping to decrease the frequency of such sleep attacks.



40. M1: We are going to start chapter 3 today. The chapter is on cave paintings. Who can tell us about cave paintings? M2: The drawings are mostly of animals. M1: Correct. The animals are mostly bison, horses, and deer. The most common themes in cave paintings are large, wild animals such as bison, horses, aurochs, and deer. Anthropologist Abbe Breuil interpreted the paintings as being hunting magic. That is to say, they were meant to increase the number of animals. Drawings of humans are rare and are usually schematic rather than the more naturalistic animal subjects. Who can guess when cave painting started? W1: Prehistoric times... M1: Yes... the paintings were made during the upper Paleolithic, about 40,000 years ago. Let me ask you another question. Who drew the paintings? W1: Artists... M1: Good answer, but who were the artists? What were their positions? W2: Tribal leaders? M1: Close, but incorrect. The artists were believed to be respected elders or shamans. The main colors of the paintings were limited to yellow, brown, charcoal, red, hematite, and manganese oxide.
41. M1: We are going to start chapter 3 today. The chapter is on cave paintings. Who can tell us about cave paintings? M2: The drawings are mostly of animals. M1: Correct. The animals are mostly bison, horses, and deer. The most common themes in cave paintings are large, wild animals such as bison, horses, aurochs, and deer. Anthropologist Abbe Breuil interpreted the paintings as being hunting magic. That is to say, they were meant to increase the number of animals. Drawings of humans are rare and are usually schematic rather than the more naturalistic animal subjects. Who can guess when cave painting started? W1: Prehistoric times... M1: Yes... the paintings were made during the upper Paleolithic, about 40,000 years ago. Let me ask you another question. Who drew the paintings? W1: Artists... M1: Good answer, but who were the artists? What were their positions? W2: Tribal leaders? M1:



Close, but incorrect. The artists were believed to be respected elders or shamans. The main colors of the paintings were limited to yellow, brown, charcoal, red, hematite, and manganese oxide.

42. So the pace, at which human minds have evolved over the last half million years and more recently the last 200,000 years, has been so frighteningly rapid that the evolution of cognitive function and perception can only occur in a small number of genes. If one needed to adapt dozens of genes changes in concert, in order to acquire the penetrating minds that we now have, which our ancestors 5,000 years ago didn't have, the evolution could not have taken place, it could not have occurred so quickly. And for that reason alone, one begins to really suspect that the genetic differences between people who lived 5,000 years ago is evidence that the difference between their cognitive functions and ours is not actually as large. Therefore, a rather small number of genes may be responsible for the powerful minds that humans have which most of us now possess.
43. Are you a chocolate-lover? Even true chocoholics might not know what their favorite treat has in common with yogurt, cheese, and wine: its flavors come from fermentation. Fermentation is the process of improving a food through the controlled activity of microbes. The food you know as chocolate starts its life as the seeds of football-shaped fruit. Farmers scoop out the seeds and pulp into piles or boxes. The seeds are now called "cacao beans". They ferment for about a week before they're dried, roasted, and crushed with sugar until smooth and ready to eat. Let's go back to that fermentation step. Cacao fermentation is a multi-stage process. The first stage involves yeast. Just like the yeast in your beer, yeast in a cacao fermentation produces alcohol by digesting the sugary pulp around the beans. As the pulp breaks down, oxygen seeps in. And oxygen-loving bacteria take over. The bacteria



generate acetic acid from the alcohol that the yeast produced. Acetic acid causes biochemical changes as it soaks into the beans, and that has a major impact on flavor. Finally, as the acid slowly evaporates and the sugars are all used up, spore-forming organisms begin to grow. Cacao is a wild fermentation. Farmers rely on natural microbes in their environment to create unique, local flavors.

44. Over the last decade the share of the world's population living under autocracy increased from 48 to 68 percent. It is more important than ever to understand how autocracies work. Autocrats have a keen interest in promoting the idea that they are all powerful. Whereas leaders in democracies can be removed via elections, leaders in autocracies can lose office in two ways: via a coup or popular revolt. To make matters worse, autocrats can rarely address both threats at the same time. They often have to choose whether to reward their elite cronies to prevent a coup or the masses to prevent a revolt. This generates many difficult tradeoffs. Cheat too little on elections and risk losing office, but cheat too much and signal weakness to your opponents. Use corruption to reward your elite friends, but not so much that it slows economic growth and sparks a revolt. Manipulate the media, but not so much that people turn off the television. Repress your political opponents, but not so much that it causes a backlash. Empower the security services, but not so much that they can overthrow you. Rulers who fail to resolve these tradeoffs often suffer the consequences.
45. Most Americans take energy for granted. But, for many families, maintaining access to reliable and affordable energy is a persistent challenge and a significant material hardship. This is a problem referred to as energy insecurity, and it affects millions of American households each year. We have found that energy insecurity is a growing and vexing problem among low-income



households, and the COVID-19 pandemic has made this problem worse. Our analysis finds that there are disparities in rates of energy insecurity across various socio-demographic groups. Black and Hispanic households, for example, are significantly more likely to experience energy insecurity and face utility disconnection than white households. So too are households with young children, individuals that require electronic medical devices, and those in dwellings with inefficient or poor conditions. Households that cannot pay for energy are unable to power electronic learning or medical devices, keep perishable, healthy food in the refrigerator, or maintain safe body temperatures. Under conditions of extreme heat or cold, people can suffer from mental and physical health consequences, including the possibility of death. Strategies for coping with uncomfortable temperatures, such as burning trash or sitting in one's car with the heat running, can lead to tragic outcomes as well. Our research underscores the importance of public policy that targets energy insecurity and its underlying causes. Weatherization assistance, incentives for residential solar power, energy bill assistance, and utility disconnection protections are all viable strategies for helping the millions of households across the country that are currently unable to pay their energy bills.

46. There comes a time in a desert ant's life when a piece of food is too large to ignore, but too heavy to lift, and the only way to get it home is to adopt a new style of walking. The long-legged and speedy *Cataglyphis fortis* normally covers ground with a three-legged stride that moves two legs forwards on one side, and one on the other. For the next step, the insect mirrors the move with its other three legs. But recordings of ants in the Tunisian desert reveal that when faced with oversized lumps of food 10 times their own weight, the forward "tripod" walking style is abandoned. Unable to lift the morsels in their



mandibles, the ants drag the food backwards instead, moving all six legs independently. "This is the first time we have seen this in any ants," said lead author Sarah Pfeffer at the University of Ulm in Germany. The ants' long legs already help keep their bodies away from the scorching desert floor and enable them to speed around at up to 60cm per second. "Think of Usain Bolt, who has very long legs compared to body size. The desert floor is also very hot, so the further away their bodies are from the surface, the better," said co-author Matthias Wittlinger. The ants have also evolved to function at body temperatures of 50C in a desert where temperatures can soar to 70C. "They're basically just trying to get out of the heat," he added.

47. A picture of Flinders Station and a female speaker speaking fast. Melbourne is a beauty city, but can be better. Industrialization is mentioned, which has changed people's lives. People used to go to only near places, but now people who don't have their own vehicles can go further because public transportation help them travel long distance. It's important to do.....Diversity contributes a lot to the market and its culture.
48. According to the World Health Organization, 400 million people worldwide have no access to essential health care. That's a staggering number of people. Some of those services include things like basic sanitation and clean water, prenatal care, and vaccinations or immunizations for children. Many things contribute to this crisis. Sometimes people live too remotely to get timely care if emergency occurs. Even when living in a city, the patient to doctor ratio can be as high as 50,000 people to just one doctor, making it impossible for that doctor to meet the demands of health care in that area. These are valuable people made in the image of God who are physically suffering. Many of them go without a personal relationship with Christ. So, we do this with a week of hands-on training, consisting of a variety of topics like basic



sanitation and hygiene, taking vital signs, wound care and infection prevention, basic birth assisting and emergency skills. Those who participate in the training then have practical skills in supplies to care for others in their community in a way that glorifies God and opens the door for sharing the gospel in a new way.

49. During this time my goals are going to be to talk about the phenomenon that we may share impart with other animals, and our language and that is emotion. And also talk about some new technology, brain imaging, functional magnetic imaging. And we try to answer some very old questions about how does motivation and emotion work. I'm going to put you with the scenario first and some of you may be familiar with. This was developed by Pavlov over a century years ago. And in this scenario the dog presented with the sound, the dog waits, and then feeds food powder and this happened repeatedly, things start to happen in the middle of the experiment there. Interesting things start to happen here. Pavlov's study was on the salivation of the dog, the salivation increases more time to paralyzes. But other things happened here, too. You have a dog move around here more, all kinds of things are going on here. What we trying to capture was the experiment 11m going on to describe today is what is going on in the brain to generate that state which we called it competitive state. But you can also think about state in terms of how the dogs' feeling layer, how you feeling about eating lunch today.
50. Today we're going to recount heroic tales of superhuman feats of strength, when in the face of disaster, some people are said to have summoned up incredible physical power to lift a car off of an accident victim, move giant rocks, or like Big John of song, single-handedly hold up a collapsing beam to let the other miners escape. Are such stories true? There are many anecdotes supporting the idea, but we're going to take a fact-based look at whether or



not it truly is possible for an adrenalin charged person to temporarily gain massive strength. In proper terminology, such a temporary boost of physical power would be called hysterical strength. The stories are almost always in the form of one person lifting a car off of another. In each of these cases, some aspect of leverage or buoyancy probably played some role in reducing the magnitude of the feat to something more believable. And even lifting many cars by several inches still leaves most of its weight supported by the suspension springs. But our purpose today is not to "debunk" any of the specific stories. The majority of them are anecdotal, and interestingly not repeatable; in many cases, the person who summoned the super strength later tried it again only to find that they couldn't do it. Basically, what we have is a respectably large body of anecdotal evidence that suggests that in times of crisis, danger, or fear, some people have the ability to temporarily exercise superhuman strength.

51. All of my research and that I conducted was my 60 plus graduate students, was motivated by their need to learn, so that we can teach. Of course, in some inventions happened along the way but I've always considered the end the result. And I always consider that this invention to be byproduct, byproducts of the learning process. The end product for me was always better understanding or when one really succeeded in unifying theory that can help us in teaching the subject. I've also looked at teaching as a vehicle to try new ideas, of new ways to doing things on an intelligent group of learners. That is as the vehicle for the teaching research results. And in my experience, this kind of teaching is the most stimulated and motivating to students. I am also uncovered many interesting research problems is the cause of teaching assumption. It is this unity of research and teaching their



close connection and the benefits gathered by exercising and the interplay that to me characterizes the successful professor.

52. The Earth's temperature is rising. And as it does, springtime phenomena—like the first bloom of flowers—are getting earlier and earlier. But rising temperatures aren't the only factor. Urban light pollution is also quickening the coming of spring. "So temperature and light are really contributing to a double whammy of making everything earlier." Richard French-Constant, an entomologist at the University of Exeter. He and his colleagues compiled 13 years of data from citizen scientists in the U.K., who tracked the first bud burst of four common trees. Turns out, light pollution—from streetlights in cities, and along roads—pushed bud burst a full week earlier. Way beyond what rising temperatures could achieve. This disruptive timing can ripple through the ecosystem. "The caterpillars that feed on trees are trying to match the hatching of their eggs to the timing of bud burst. Because the caterpillars want to feed on the juiciest and least chemically protected leaves. And it's not just the caterpillars, of course, that are important. But the knock-on effect is on nesting birds, which are also trying to hatch their chicks at the same time that there's the maximum number of caterpillars." So earlier buds could ultimately affect the survival of birds, and beyond. The findings are in the Proceedings of the Royal Society B. The world's becoming increasingly urbanized, and light pollution is growing—which French-Constant says could trick trees into budding earlier and earlier. But smarter lighting—like LEDs that dial down certain wavelengths—could help. "Perhaps the exciting thing is, if we understand more about how light affects this bud burst, we might be able to devise smarter sort of street lighting that has less red components, and therefore less early bud burst." Thus keeping springtime an actual springtime phenomenon.



53. In 1943, what became known as the Green Revolution began when Mexico, unable to feed its growing population, shouted for help. Within a few years, the Ford and Rockefeller Foundations founded the International Rice Research Institute in Asia, and by 1962, a new strain of rice called IR8 was feeding people all over the world. IR8 was the first really big modified crop to make a real impact on world hunger. In 1962 the technology did not yet exist to directly manipulate the genes of plants, and so IR8 was created by carefully crossing existing varieties: selecting the best from each generation, further modifying them, and finally finding the best. Here is the power of modified crops: IR8, with no fertilizer, straight out of the box, produced five times the yield of traditional rice varieties. In optimal conditions with nitrogen, it produced ten times the yield of traditional varieties. By 1980, IR36 resisted pests and grew fast enough to allow two crops a year instead of just one, doubling the yield. And by 1990, using more advanced genetic manipulation techniques, IR72 was outperforming even IR36. The Green Revolution saw worldwide crop yields explode from 1960 through 2000.
54. So, when we talk about the polar regions, just to clarify exactly what we mean. And we have first of all the Arctic at the top of the earth and the Antarctic at the bottom, and so the Arctic was named after the Greek word for bear. Now surprisingly it's not after the polar bears that live in the Antarctic or live in the Arctic and based on it's after the little and great bear constellations that can be seen in the sky. Now the Greek also hypothesize that there would be the Anti-arctic, which is how we get the name Antarctica and of course it wasn't discovered until much later on. Now these regions are opposite in many ways other than just their names and their location on the globe, and so if we look at the arctic first of all, and the Arctic is actually ocean surrounded by land, and so you can see here this is the UK down here



and this kind of Russia and then American Canada around here, and so there is a bit of land cover in our ice on the top in the Arctic, which is Greenland here and Macie all this area here. Surprisingly a lot of people don't realize that this isn't actually land. The north pole isn't on land. It's just one big ocean.

55. I have said before that you can't have a civilization that doesn't have art. When we think about the great civilizations historically, all of them had great production of culture and art, because a society has to be able to observe itself. And the sophistication of the great civilizations were their ability to look at themselves and what allows a society to do that. Are the producers of Art and Culture mirror back to the core of the society? Exactly what is being produced at that moment? How people are thinking of themselves and how individuals are relating to the social structure at that time? Art is the vehicle through which we understand that. Were you to take away art? What would be that mirror? How would we see what we are about? How would we understand what was going on in Paris at the time of the impressionists when people were learning to see in a completely different way. Pre cinematograph appear all of these things are just emerging and here are people looking at the world in a very different way which was considered so radical at the time.
56. But we can really thank the Great Exhibition of 1851 for giving us the world's premier taxi service, for it was going to this exhibition, and this fabulous exhibition inventions from all around the four corners of the Empire that the visitors were appalled, dismayed and vexed by their journeys to this exhibition because the cabbies of the day, and their horse-drawn carts were absolutely terrible, could not find their way to this exhibition. And, so, a great public outcry, the London Authority sets up Public Carriage Office, which is an organization that still exists. And you can take a short walk to Penton Street up the road. And this Public Carriage office took on the responsibility of



licensing all major taxi drivers in London. All taxi drivers from 1851 onwards had to pass what is now known as the London knowledge, was phenomenal knowledge of London. What is the London knowledge? It's the ability to remember the 25,000 streets, have it all interconnected and all the main arterial roads in and out of London. Cabbies need to know all this plus a thousand points of specific interest cafes, bars, public offices. They need to know them all as part of their training.

57. But a new study of fish called sticklebacks shows that shy individuals actually prefer to follow fish that are similarly timid. Researchers had trios of sticklebacks with known personalities play follow the leader. The fish were placed in a tank that had some plastic plants at one end and some food hidden at the other. In some of the groups, a bold fish and a shy fish acted as leaders, while another shy fish followed. And in other groups, it was a bold fish that did the following. The researchers recorded whether the follower sallied forth more frequently with the fish that was behaviorally similar or the one that was different. What they found is that shy fish were more likely to emerge from undercover when an equally wary fellow was already out there. Bold follower fish did not seem to care which leader they followed. Of course, no matter which fish a stickleback chose to stick with, the bold fish did lead more expeditions over the course of the experiment than their more retiring friends. That's because the bold fish initiated more trips, regardless of who might be tailing them. The researchers write that "when offered a choice of leaders, sticklebacks prefer to follow individuals whose personality matches their own, but bolder individuals may, nevertheless, be able to impose their leadership, even among shy followers, simply through greater effort."
58. So what do we mean by well-being? Health, happiness, a sense of achievement and contentment, a state of mind and body where people can



thrive. Well-being is not something that is purely limited to people who are facing extraordinary challenges in their lifestyle, health or personal circumstances, everybody here has a level of well-being. Music so often forms an intuitive part of our well-being management, music to pick us up, music to calm us down, music to heal our sorrows. Our aim through research is to move from this level of intuitive application of music through to informed use in our communities to take the next step in the understanding of the power of music in human life. Music already works for us on so many levels whether it's soothing and teaching our infants bringing people and communities together adding spirit to our work and personal endeavors, but there is no reason to stop here.

59. Welcome to today's lesson. We're continuing with our study of taxonomy. Taxonomy is how scientists classify organisms into different groups based on the characteristics that they share. So, for instance, a good way to think about taxonomy is the US Postal Service. If we want to send a letter to someone, we first start off by addressing it to the nation they are in. By default, we usually assume that's America but it doesn't have to be in England or Costa Rica or Spain. You put their nation or their kingdom. Then within that kingdom, you address it to a slightly more specific level their states. So, for instance, South Carolina would be the same as a phylum. And within that state, you would address it to their city and then to their street number, the street they live on. Then you would address it to say their apartment complex and within that complex, you'd address it by their last name to their family and then finally their first name to the specific person you want to get it to and in that way we're able to weed out all the 400 million people we don't want to send our letter to in America and pinpoint the exact person we want the letter to reach. And in the same way, scientists use a taxonomy chart to



pinpoint a living creature and organism and how it relates to everything else in the world.

60. As Joanne pointed out, only one country, tiny little Bhutan, wedged between China and India, has adopted the Gross National Happiness as the central index of the government policy, and actually has a good deal of success in education and in health and in economic growth and in environmental preservation. They have a rather sophisticated way of measuring the effects of different policies on people's happiness. They are the only country to go that far. But you are now beginning to get other countries interested enough to do kind of white paper policy analyses of happiness research—what effects would it have if we used it more for public policy? You are beginning to get countries like Australia, France, Great Britain, that are considering publishing regular statistics on happiness. So it is beginning to become a subject of greater interest for policymakers and legislators in different advanced countries.
61. Welcome to your very first tutorial in biology. Now, in this video series what I want to do is I want to talk to you guys about many different topics concerning biology. For example, I want to talk to you guys about DNA and genetics in cells, in bacteria, in life and a whole bunch of interesting stuff. But since this is the very first video, I think what we should do in this video is just stick with the very basics. And the first thing I want to do is talk to you guys about what is biology. So, let's go ahead and answer that question. And the definition of biology is this: the study of life in living organisms. All right, that makes sense up to a certain point up until organisms because you may have heard of organisms before. And you may have your own definition but the scientific definition of an organism is a living thing. Well, that's easy. We know what living things are. I'm a living thing, plants, grass is a living thing. My puppy



named old Dan, cutest puppy ever, by the way, is a living thing but whenever we talk about living things. Believe it or not, things get rid of complicated because then you have to ask yourself 'what is life'. Well, of course, if you ask your grandma or your best friend or even if you ask a philosopher 'what is life', everyone is going to give you kind of a different definition of their outlook on life. However, whenever scientist and biologists were first deciding, you know what, what is life? That's the problem that they had everyone had their own separate definition of life itself. So, what they need to do before biology was even invented, which is, of course, the study of life is scientists needed to agree on the definition of life.

62. There's sugar in a lot of foods where you don't expect it. Of course there's lots of sugar in donuts of ice cream, or pastries, or other things that are sweet; candy of course, but there are other places where you see it and you don't necessarily expect it. So as an example: peanut butter. Here's a list of ingredients from Skippy Peanut Butter and you see that sugar is the second most common ingredient. So that you may know from the reading food labels that these ingredients in any food labels that are listed in order of how much there is in the food itself, so sugar comes right after peanuts. Here's another example, Beef stew, you wouldn't necessarily expected to find sugar in beef stew but it's there. Now it's down the list of ingredients, it's actually toward the end, but if you look at the marketing of this and food at the can, it says, there's fresh potatoes and carrots, but actually there's more sugar in this than there is carrots. And so you wouldn't eat something like beef stew and expect to find this to be the case.
63. Turner, not surprisingly, painted one of the earliest pictures of London's fog, in the 1835 painting the Thames above Waterloo Bridge. Turner is a trueborn Londoner, is advertising his familiarity with London's air problem by putting



smoke, an atmospheric pollution at its center. And as you can see, in here, the bridge is the central elements, which is a theme that's later taken up by Monet. And it's partly obscured by the steam and smoke which rises from both sides of the river. Here, we see a shot-tower. I think you can just about to see, which was constructed in 1826. Do you know what shot towers are? They produce shot for guns, ammunition. And they were very smoky, one of the more smoking industries. But it's barely visible, as you can see, as are the various industries on the Lambuth side of the river. There's, on this side, there's a steamship about to dock or preparing to leave. It's black smoke thrusting up to join the kind of swirling arc of smoke there. William Rodner sees this painting as a potent essay on the energy and complexity of modern polluted organism. Smoke, I think, here represents for a flourishing economy, which brings employment and food on tables but also the dirt and pollution associated with the fumes all seems to be tainted by sulfurous yellow.

64. This is a kind of object that you're probably all familiar with when you had the term robot, but I'm gonna show you the very, very first robots. These were the very first robots. They were characters in a play in the 1920s called Rossum's Universal Robots and they, the play was written by Czech writer called Karel Capek. And basically, these robots, you know, people tend to think of robots as kind of cute cuddly toys or, you know, Hollywood depictions kind of devoid of politics. But the first robots were actually created and imagined in a time of absolute political turmoil. You just had the First World War, you know, it finished had a devastating impact across Europe and so people will kind and people are kind of reflecting on what does it mean to be human, what makes us human, those kinds of question. And this kind of context is what inspired Capek to kind of write this play. And interestingly, these robots being human, they are actually in the play assembled on a production line, a bit like the Ford



manufacturing production line. So even though they are human, they are assembled and these robots are designed to labor, and that is their primary purpose in society.

65. This is one picture that you probably you all know what it is when you see it. It's a familiar-looking image. It's something that probably we all have some personal experience with, right? This is a chest X-ray that would be taken in your doctor's office, for example, or a radiologist's office. And it is a good example of Biomedical Engineering and that it takes a physical principle, that is how do X-rays interact with the tissues of your body, and it uses that physics, that physical principle to develop a picture of what's inside your body, so to look inside and see things that you couldn't see without this device. And you'll recognize some parts of the image, you can see the ribcage here, the bones you can see the heart is the large bright object down here. If you, have good eyesight from the distance, you can see the vessels leading out of the heart and into the lungs, and the lungs are darker spaces within the ribcage.
66. Climate change, some adverse effects of climate changes to agricultural productions. Some lands are unsuitable for growing crops. There will be millions of people facing hunger in Africa in the future. Climate change will result in less production and less food. It is difficult for developing countries to deal with climate change due to their financial status and other issues. There are many people living in hunger especially in Africa. The climate change has devastating effects on world economy. The tropical areas on earth are dry and hot, and are originally not suitable for food production. The change of the climate leads to extreme weather conditions such as flood and hurricane, which exacerbates the food production. As a result, it leads to a continuous decline in food supply annually around 10- 17%. And this trend is perceived to



be continue in the future by 2070. The regions suffering the most will be some African countries.

67. Our friends at the Highlands Museum and Discovery Center in Ashland, Kentucky, asked a very good question. Why is it dark in space? That question is not as simple as it may sound. You might think that space appears dark at night because that is when our side of Earth faces away from the Sun as our planet rotates on its axis every 24 hours. But what about all those other far away suns that appear as stars in the night sky? Our own Milky Way galaxy contains over 200 billion stars, and the entire universe probably contains over 100 billion galaxies. You might suppose that that many stars would light up the night like daytime! Until the 20th century, astronomers didn't think it was even possible to count all the stars in the universe. They thought the universe went on forever. In other words, they thought the universe was infinite. Besides being very hard to imagine, the trouble with an infinite universe is that no matter where you look in the night sky, you should see a star. Stars should overlap each other in the sky like tree trunks in the middle of a very thick forest. But, if this were the case, the sky would be blazing with light. This problem greatly troubled astronomers and became known as "Olbers' Paradox." A paradox is a statement that seems to disagree with itself. To try to explain the paradox, some 19th century scientists thought that dust clouds between the stars must be absorbing a lot of the starlight so it wouldn't shine through to us. But later scientists realized that the dust itself would absorb so much energy from the starlight that eventually it would glow as hot and bright as the stars themselves. Astronomers now realize that the universe is not infinite. A finite universe—that is, a universe of limited size—even one with trillions and trillions of stars, just wouldn't have enough stars to light up all of



space. Although the idea of a finite universe explains why Earth's sky is dark at night, other causes work to make it even darker.

68. 3 stages of Brain development- brain development during childhood, there are three stages, starting from the primitive brain (the action brain), limbic brain(feeling brain), and finally to the neocortex (thought brain).Although interrelated, the three had its own function. Primitive brain functions to manage the physical to survive, manage reflex, motor motion control, monitoring body functions, and process information coming from sensing. Limbic brain functioning as a liaison to process emotions and the brain thinks, and the primitive brain. While the thinking brain, which is the most objective part of the brain, receiving input from the primitive brain and the limbic brain. However, he needed more time to process information from the primitive brain and the limbic brain. The brain thinks the merger is also a place of experience, memory, feeling, and thinking ability to give birth to ideas and actions. Nerve myelination of the brain take place in sequence, starting from the primitive brain, the limbic brains, and brain thought. Neural pathways are more frequently used to make more myelin thicken. Increasingly thicker myelin, the faster the nerve impulses or signals travel alone nerves. Therefore, a growing child is encouraged to receive input from the environment in accordance with its development.
69. I believe our borders should be open. But if that is not politically acceptable for now, Europe should at least open up a legal route for people from developing countries to come work here. Over time, hopefully, we can move to a position where borders are completely open. Persuading sceptics won't be easy. That's why I think the argument for free migration has to be made at several levels: a principled case: it increases freedom and reduces injustice; a humanitarian case: it helps people much poorer than ourselves; an economic



case: it makes us richer; and a pragmatic case: it is inevitable, so it is in everyone's interests to make the best of it. Freedom of movement is not just a matter of human rights and international solidarity; it is in our self-interest. Opening our borders may seem unrealistic. But so too, once, did abolishing slavery or giving women the vote. Campaigning for people's right to move freely is a noble cause for our time.

70. Haussmann's renovation of Paris was a vast public works program commissioned by Emperor Napoleon III and directed by his prefect of the Seine, Georges-Eugene Haussmann, between 1853 and 1870. It included the demolition of crowded and unhealthy medieval neighborhoods, the building of wide avenues, parks and squares, the annexation of the suburbs surrounding Paris, and the construction of new sewers, fountains and aqueducts. Haussmann's work met with fierce opposition, and he was finally dismissed by Napoleon III in 1870; but work on his projects continued until 1927. The street plan and distinctive appearance of the center of Paris today is largely the result of Haussmann's renovation. In the middle of the nineteenth century, the center of Paris was overcrowded, dark, dangerous, and unhealthy. In 1845 the French social reformer Victor Consider ant wrote "Paris is an immense workshop of putrefaction, where misery, pestilence and sickness work in concert, where sunlight and air rarely penetrate. Paris is a terrible place where plants shrivel and perish, and where, of seven small infants, four die during the course of the year." The street plan on the Tie de la Cite and in the neighborhood called the "quartier des Arcis", between the Louvre and the "Hotel de Ville" (City Hall), had changed little since the Middle Ages. The population density in these neighborhoods was extremely high, compared with the rest of Paris; in the neighborhood of the Champs-Elysees, there was one resident for every 186 square meters; in the neighborhoods of Arc is and



Saint- Avoye, in the present Third Arrondissement, there was one inhabitant for every three-square meters. In 1840, a doctor described one building in the tie de la Cite where a single room five meters squares on the fourth floor was occupied by twenty-three people, both adults and children. In these conditions, disease spread very quickly. Cholera epidemics ravaged the city in 1832 and 1848. In the epidemic of 1848, five percent of the inhabitants of these two neighborhoods died. Traffic circulation was another major problem. The widest streets in these two neighborhoods were only five meters wide ; the narrowest were only one or two meters wide. Wagons, carriages and carts could barely move through the streets. The center of the city was also a cradle of discontent and revolution between 1830 and 1848, seven armed uprisings and revolts had broken out in the Centre of Paris, particularly along the Faubourg Saint-Antoine, around the Hotel de Vi lle, and around Montagne Sainte Genevive on the left bank. The residents of these neighborhoods had taken up paving stones and blocked the narrow streets with barricades, and had to be dislodged by the army.

71. Let's take a look at this video of these little kids they were offered the option of having one marshmallow immediately now or two marshmallows 15 minutes later and you've got some very cute video tape of this experiment. So let's take a look okay, what we found is a very simple and direct way of measuring a competence that seems to make an important life difference a researcher tells these preschoolers that she's going to leave the room if they wait for her to come back without eating the marshmallows. They'll get two marshmallows or they can ring the bell and she'll come back right away but then they only get one marshmallow. I would baby though you won't ring the bell. okay, looking at children over time. Dr. Michelle has found that being able to wait longer at four has some pretty powerful implications and what are those



powerful implications is that that later in life. They're more discipline and have more self-control is that pretty much it. Well, they are more likely to achieve their life goals. They have better relationships. They did better on their SI is crazy all because they waited 15 minutes for don't wash me, and I think it is crazy. I probably would have eaten all three but yeah me too. But um you know actually yes, the ability to be able to pursue your goals in this case it was stabbed two marshmallows versus one and not going automatic and just grabbed the marshmallow is a very important skill, but I think a main point in mind in the making is that these skills can be caught, taught if you're 14 or 40 or four it's not ever too late and any child can learn the many adults can teach them and it's never too late.

72. Welsh is a Celtic language spoken in Wales by about 740,000 people, and in the Welsh colony in Patagonia, Argentina by several hundred people. There are also Welsh speakers in England, Scotland, Canada, the USA, Australia and New Zealand. At the beginning of the 20th century about half of the population of Wales spoke Welsh as an everyday language. Towards the end of the century, the proportion of Welsh speakers had fallen to about 20%. According to the 2001 census 582,368 people can speak Welsh, 659,301 people can either speak, read or write Welsh, and 797,717 people, 28% of the population, claimed to have some knowledge of the language. According to a survey carried out by S4C, the Welsh language TV channel, the number of Welsh speakers in Wales is around 750,000, and about 1.5 million people can 'understand' Welsh. In addition, there are an estimated 133,000 Welsh--speakers living in England, about 50,000 of them in the Greater London area.
73. So the way a mother rat takes care of its pups is by licking and grooming, nipple switching and arch back nursing. So the rats that do a lot of licking and grooming and their last rats that rule very little. But most rats are in between.



So that resembles a human behaviors as well, right, you have mothers that are highly mothering and mothers that couldn't care less and most mothers are somewhere in between. So if you look at these rats. So all you do you observe them and put them in separate cages. So you put the high lickers in one cage not the mothers, but the offspring and the low lickers in another cage and then you let them grow and they're adults now, their mothers are long buried and you look in the brain and you see that those who had high licking mothers express a lot of glucocorticoid receptor, gene and though so our lawmakers express know that reflects a number of factors and that results in a different stress response, but this is not the only difference. We found later on there are hundreds of genes that are differently expressed. So if you get in a mutation, you know polymorphism once in a million. Here, just the motherly launching just hundreds of genes in one shot and it changes them in a very stable way that you can look at the old rat and you can say whether it was licked or not. But you can also save by behavior. So if you walk to the cages to the room the rats that were poorly lit are highly anxious, hard to handle, aggressive, and , and the rats that were very well handled as off as little pups. They are much more relaxed much easier to handle. So you know, like every technician in the lab knows looking at the adult rat how it was licked when it was a little tough any question , of course, mechanism , how does this work?

74. This is a bomb calorimeter; this is the actual piece of equipment that researchers used to calculate the energy content of either biodiesel or maybe even the potato chips that you had for lunch today. When they calculate the amount of energy. They're going to calculate it in heat unites which would either be joules or calories. I want you to look inside the bomb calorimeter inside here, you can see that there's a silver bucket water goes all in here and this is actually the bomb is the smaller silver cylinder what you do is put your



fuel sample in there then these two electrodes are connected to the bomb. These provide the spark that will ignite your sample when your sample burns or combust that gives off energy. So how is the energy collected or how did a scientist figure out how much energy is being given off. Well, it's a closed system, there's a lid here that goes on top of this calorimeter and what's in here in the lid is a stirrer. The stir is going to stir the water. That's in this big pool here so that the heat given off from the sample is going to warm the water in a uniform way. This is the temperature probe, this goes down in the water also and measures the change in temperature because as the sample is burned, it will give off heat and the temperature the water will increase. So the lid goes on the sample is prepared. The last thing that you need to make a combustion reaction happen is oxygen and at some point, during the process, some oxygen is added by a tank. That's connected to the calorimeter here. So we are going to burn a sample of the biodiesel that you've prepared and get some feedback on the energy content of it. You'll be able to use this to compare it to petroleum-based fuels like octane.

75. The brain is basically built from the bottom up first the brain builds basic circuits that are responsible for basic skills, and then more complex circuits are built on top of those basic circuits as we develop more complex skills. Biologically, the brain is prepared to be shaped by experience. It's expecting the experiences that a young child has to literally influence the formation of its circuitry it's built into our biology. The interaction between genetics and experience that shapes brain architecture is embedded in a reciprocal relationship, the relationships that children have with the adults in their lives. And by that we mean what we refer to as the serve-and-return nature of children's interaction with their adult's development. And the impact of experience on development is not a one-way street. It's a back-and-forth



interaction. The brain is a highly integrated organ which has multiple sections that specialize in different kind of processes, so we have parts of the brain that are involved more in cognitive function and other parts that are involved in processing of emotion and parts involved in seeing and hearing. So if a child is emotionally kind of...well...put together and socially competent, that will affect more positive and productive learning. And if a child is preoccupied with fears or anxiety or is dealing with considerable stress no matter how intellectually gifted that child might be, his or her learning is going to be impaired by that kind of emotional interference.

76. Wind turbine is a device that will convert wind into mechanical movement, which we can use to power water pump or electricity generator. Now the power that the turbine creates is obviously depended on the wind speed, it also depended obviously on the number of sails, the area of the sails and the angle of the sails makes to the wind. So you can imagine if the turbine blades flat onto the wind, the wind's going to just bend it, if there is slight angle when the wind hits it, it's going to turn the blades. We can use that for powering things. Now, we're going to have a go, making some of the very, very simple paper windmills, a sort of things that you can make from the bits and pieces lying around home, and use that to drive very small generator to power electronic devices.
77. Soot, which comes from combustion of many different things, is black so it's a strong absorber. In fact, it's second only to CO₂ in terms of warming, so it's actually ahead of methane, which you hear a lot about. The interesting thing about soot and aerosols' impact on climate is that their lifetimes are so much shorter. So, if we can reduce the soot, we can make changes within months versus tens of years. It's not to say we should ignore the CO₂ and the



greenhouse gases but it could buy us some time while we actually do the right strategies to reduce the greenhouse gases.

78. To be a successful entrepreneur, you should have good ideas, but the definition of a good idea varies depending on whom you ask. A great idea should have several features. Firstly, the great idea should be various and novel. Secondly, the great idea should be unique, which means no one has thought about it. Thirdly, it is essential for great ideas to be transformative and productive. All ideas are essentially a combination of other smaller ideas, but this doesn't mean they can't be unique. Merely copying doesn't make anything idiosyncratic, it's the individuality that one puts in which makes a concept stand out. Constant innovation leaves no room for stagnation and thus, adds on to the basic idea, effectively making it unique. Unique ideas are inspired by basic things, they are simply extensions of pre-existing notion. And, an idea or a concept is unique only when it transcends its predecessor as it serves its purpose in a better and more precise way.
79. Many parents communicate and educate their children with two languages, probably because they both know more than one language, or they come from different countries. Most of these parents think this can benefit their children's language learning. But actually, kids will get confused when their parents use different languages from each other to describe the same object. If one parent sticks to one language, and the other one sticks to another language, their children will not be confused any more.
80. Uniquely stable, they seemed to participate in no chemical reactions. But by understanding the stability of the noble gases, physicists discovered the key to chemical bonding itself. Dmitri Mendeleev added the noble gases to his periodic table in 1902, where he arranges the elements in rows and columns according to their atomic weight. Mendeleev was able to see repeating or



periodic patterns in their properties. The noble gas appeared regularly in the periodic table, occurring in every eighth position, at least amongst the lighter elements.

81. A PPT is given, and you can read it accordingly. This lecture compares the conditions on the earth and Mars, as well as the habitability of Mars. There are some similarities such as polar caps, atmospheres and water climate. But Mars and the earth also have lots of difference. Even the most inhabitable areas on the earth are way different from those on Mars. In preparing for the Phoenix Mission, scientists have done Antarctica trial runs. The lecture also describes different forms of water (hydrology) on the surface and underground of the earth and Mars.
82. A concise PPT which can be read directly as a response to this question. We normally see blogging as a two-way interaction, in which the blogger/author creates the content and the readers interact or challenge the author. But the case will be much difficult when it comes to government, such as the White House. Because people will become coarser and ride online, especially in the comment area. Hence the governor blog may go wild and chaotic.
83. A picture with data of 'Economic growth percentage'. Over the past 20 years, the economy in Latin America developed by 80%. After globalization and reform, the growth slowed down to 10%. People were asking why and start to consider if the reform is positive or not. The growth rate of economy was even slower than that before the reform. It is not sustained at all. The poverty rate which was at \$2 per day has increased.
84. Human used to utilize simple machines to understand themselves and improve wellbeing. Later, engineers developed more complicated machines to expand human's life expectancy. So that we can have more time to create



more advanced machines. For example, now we have ECG to study the different parts in our body and how they work, without going into the body.

85. Morton Prince was an American physician and psychologist, his book "Dissociation of a Personality" was the best-seller at that time. It tells a story of Miss Christine Beauchamp, who was suffering from MPD (Multiple Personality Disorder). Miss Beauchamp has several personalities, namely B1, B2 and B3. There was hidden memory in these 3 personalities. Miss Beauchamp was B2. B2 knows about B1, B3 knows both B1 & B2, but B1 knows nothing about B2 or B3. The strongest personality account for most of the time and it will take over the others and become the main personality at the end. This case and theory give great help to crime investigation.
86. The comics I show you with lots of people chatting around in a room is a form of description. We use different kinds of methods to describe a situation. Sometimes we have to use visual description, particularly when we do not witness the scenario. I was born during the Second World War and my hometown is X, for example when I asked my mother about the war, I always ask her you have mentioned this or that when you talked to me when asked her about the shelter, I asked her what the shelter looks like and when did you go to the shelter. From her response I could get more visual evidence as I can to write my book.
87. A pie chart saying 60% frog with normal limbs 20% with... The graph shows tree types of frogs in different region, indicating their life habits and their influence on human. The variation of frog has been existing for many years that some have more limbs while some have fewer limbs. The lecture also explains the reason for the gene mutation. Many people are worried that river those frogs live will be polluted by them and affect our health.



88. According to the speaker, the wage increase is 5%, which is very weak. The consumption is about 15%, which seems decent. The housing debt is about 40%, which is unusual. But can be understandable after the wage and consumption increase.
89. Today, I want to talk about an important aspect of education which is the education expenditure of the UK, compared with other European countries. Based on a recent paper published in the economist journal, UK has only spent 1% of its total GDP on tertiary education, which was insufficient as compared with other European countries such as Finland and Denmark. For instance, the expenditure of Spain is close to the UK in some cases in 2007 and this survey conducted among 50 major cities around the country. However, Denmark and Finland spent much more than the other European countries. So, if we decide to compare the education expenditure of the UK with various developing countries, we will find mindboggling figures in this regard compared to the other countries.
90. About mega cities' impact. Global population has increased by 4 folds, from 1.5 billion in 1900 to 6 billion in 2000. While resource consumption has increased more significantly by 16 folds over the century. Due to urbanization, cities, which only account for 2% of the land, have 50% of the total population and consume 75% of the resources. People not only use every resource but also produce tons of wastes.
91. Our civilization, which subsumes most of its predecessors, is a great ship steaming at speed into the future. It travels faster, further, and more laden than any before. We may not be able to foresee every reef and hazard, but by reading her compass bearing and headway, by understanding her design, her safety record, and the abilities of her crew, we can, I think, plot a wise course between the narrows and bergs looming ahead. And I believe we must



do this without delay, because there are too many shipwrecks behind us. The vessel we are now aboard is not merely the biggest of all time; it is also the only one left. The future of everything we have accomplished since our intelligence evolved will depend on the wisdom of our actions over the next few years. Like all creatures, humans have made their way in the world so far by trial and error; unlike other creatures, we have a presence so colossal that error is a luxury we can no longer afford. The world has grown too small to forgive us any big mistakes.

92. Main points: The lecture talks about loggerhead turtle, one of the largest turtles in the world, and almost distinct in the USA. They have big heads and short necks. In September, 1986, scientists put a tracker on a turtle's shell, and use satellites to track and locate the migration route of the turtle. They reach different localities in different time. The migration takes three months, from the south Florida to the north. The text to be confirmed: It is time for this young loggerhead Turtle to go to work. We can tether turtles in these little cloth harnesses, put them in this tank and they'll swim in place. University of North Carolina Biologist Ken Lohmann studies sea turtles that are programmed from birth for an extraordinary journey. The mother turtles bury the eggs on the beach and then return to the sea and the eggs hatch about 50-60 days later. With support from the National Science Foundation, Lohmann is learning how these reptiles use the Earth magnetic field to navigate a 5-10-year Journey around the Atlantic Ocean. The turtle seems to inherit a set of responses that tell them what to do when they encounter specific magnetic field at particular locations. This animal magnetism can be a life saver. One filed off Portugal triggers the turtles to turn south. If they don't, they will likely die, swept into frigid North Atlantic waters. In one lab test, turtles responded to magnetic fields similar to what they would encounter off coast of Florida. The great



majority of them turned southeast. Now, this is an exciting finding because south easterly orientation in this part of the world, would presumably take turtles further into the Gulf Stream. So turtles actually have, what might be considered, a crude global positioning system that is based on the Earth magnetic field. And check out this experiment, these turtle moves may look odd. The turtles will actually act out their swimming behavior in air. But this wave simulator recreates the first environmental cue hatchling turtles respond to, and so swimming into waves is a highly reliable trick that turtles use to guide themselves offshore. I guess you can call it, TPS, the turtle positioning system and while we humans spend hundreds of dollars for device like this that tells us where in the world we are, the turtles just know. Understanding how that works will help us protect the species. Now the only question is, how can we help them get out of their shell?

93. With over 40 years unrivaled experience and a worldwide reputation, BSI leads the way in testing and certification of fire safety products. Based on our dedicated labs in Hamel Hempstead, our team provides BSI kitemark and CE testing and certification for a broad range of products, including fire extinguishers, hoses, alarm panels, and heat and smoke detectors. We help clients to gain access into the European market by ensuring that products meet all the CE mark requirements. And we are familiar with the market access regulations of most countries across the world, enabling customers to enter markets globally. The BSI kitemark is categorized as a British super brand and acknowledged the world over as a symbol of trust, integrity, and quality. It provides the reassurance that vital product safety and performance requirements have been met. Our team subject each product to a rigorous set of tests along with robust production control audits designed specifically to ensure that they perform two required standards of safety and quality. We



test for compatibility of fire detection and fire alarm system components to ensure that they're compatible and connectable. This service meets the growing requirement of European regulatory authorities to meet national installation guidelines. We also perform tests on individual detection components. Fire suppression products such as fire extinguishers are subjected to rigorous tests designed to ensure that they're effective, safe and capable of performing in environments and conditions in which they're stored and used. The symbols for BSI kitemark and CE certification represent quality, safety, and trust. For specifiers, they demonstrate a commitment to best practice procurement. And for the public, they provide the reassurance that fire safety products are effective and reliable.

94. The topic is the correlation between greenhouse gases and temperature. Greenhouse gas has increased during these years. It does not prove one causes the other, but the correlation is true and undeniable. CO2 is a lot worse than we thought, but we don't know how to reduce the amount. Developing sustainable energy resources is important to conserve the energy we have.
95. Sometimes it's the little things that can make big things happen. Fleas and the plague, atoms and nuclear bombs. Diminutive leaders in world history. Soot is one of these little things. Soot also known as black carbon is released when you burn dung, coal, diesel fuel and wood. From Los Angeles to Mumbai, soot causes respiratory illnesses like lung cancer and asthma and contributes to one point six million premature deaths every year. Mostly among the poor. And it gets worse. Atmospheric currents carry soot thousands of miles from where it is produced, to the Himalayas and the Arctic. Black carbon being black, absorbs sunlight, so even a little soot on snow makes it melt faster. And when snow melts global sea levels rise, threatening our freshwater indigenous



communities and polar bears who hunt on the Arctic ice. Climate Change has been a big thing for a while and carbon dioxide has been its main cause. Scientists estimate that soot causes twenty five percent of human-caused global warming. It's the second leading cause of Arctic warming after carbon dioxide. Let's not underestimate the impact of this tiny particle. But there's good news, reducing black carbon may be the fastest way to slow global warming. Buy time for the Arctic. Yes, even more so than changing a light bulb. Since black carbon only stays in the atmosphere for a couple of weeks, reducing it will produce results immediately. Of course, reducing soot alone won't solve global warming, but solving our soot problem now will help buy time for the Arctic and allow us to deal with the bigger problem of carbon dioxide. We have the cleaner industries, cook stoves, and diesel now we have to use them. In developed nations, we've significantly reduced our black carbon, but we still have much more to do. We need to tighten our standards at home and invest in cleaner technologies in developing nations. In a world going on seven billion people, you might feel rather little yourself. But if you urge the US government and the European Union to take the lead on black carbon reduction, you can make a big difference.

96. A table showing populations in rural and urban areas of India, Vietnam and Zimbabwe. The topic is the poverty in rural and urban areas. Firstly, the poverty rates in rural areas are much higher than those in urban areas, because most of the poor live in rural areas. Rural areas also have high infant mortality rate and low education level. It is important to make sure the population in rural areas have access to sanitation and education. The poverty in urban areas is caused by the migration from rural areas.
97. He says innovation equals invention. Let me just stop here. Innovation equals invention often people mistake these two things for the same thing.



Innovation equals invention, they are not. Innovation is something that generates value for the world. It makes something faster, better, cheaper. It gives someone some great satisfaction. An invention is an idea, a technology, a patent. In and of itself, it does not generate value. So these two are not the same thing. And sometimes you see them interchange. And that's not correct. So innovation equals invention times commercialization. So and when we look at this equation of innovation something of value, it requires a new idea and then it requires someone or some organization that is going to commercialize that idea, and to make it a value to the world.

98. A video with a lady, standing, giving her lecture. About instruments used in space observation. Via a telescope installed in higher areas, especially desert and mountainous areas, people can observe things clearer. Some instruments, such as Hubble telescope, have many functions, like transferring other planets' images back, and thus helping us understand the earth (or space?).
99. About HFSS (food high in fat, sugar and salt) An organization, ASA (Advertising Standard Authority), is introduced, and it helps consumers make healthy decisions in buying food and drinks, also helps consumers identify the food contents in the labeling, like sugar, salt.
100. I'm just going to take on where stuff left off. The hormone I want to now talk about it's called melatonin. The synthesis is in the Pineal Gland, which is very small. It is the size of a pea in your brain. Descartes called it the 'seat of soul', and it is where melatonin is made. And it has a rhythm as well. And in the sense, it is the opposite of the cortisol. It peaks at night. We call it as the darkness hormone. In every species that we studied; melatonin occurs at night. And its hormone that prepares you for the things, that your species, does at night. So, of course, in humans we sleep, but animals, like rodents, they are awake. So, it's a hormone that is related to darkness behavior.



101. Honey bees do a waggle dance to direct other bees to the source of nectar. The dancing bees like this one can be halted by a headbutt from another bee. Now research has found that this headbutt is actually a warning signal. A feeding station was set up in the lab to mimic a source of nectar, then foraging bees were introduced to the dangers at the station, such as competition from rival colonies. When foragers returned to the hive, they stopped bees dancing. Scientists think the behavior warns dancers of a dangerous source of nectar.
102. Protons are finally transferred to the LHC (both in a clockwise and an anticlockwise direction) where they are accelerated for 20 minutes to 6.5 TeV. Beams circulate for many hours inside the LHC beam pipes under normal operating conditions. For each collision, the physicist's goal is to count, track and characterize all the different particles. The charge of the particle, for instance, is obvious since particles with positive electric charge bend one way and those with negative charge bend the opposite way. Also, the momentum of the particle can be determined. Large Hadron Collider (LHC) is the world's largest particle accelerator lies in a tunnel. The LHC is a ring roughly 28km around that accelerates protons almost to the speed of light before colliding them head-on. Protons are particles found in the atomic nucleus, roughly one thousand-million-millionth of a meter in size. The LHC starts with a bottle of hydrogen gas, which is sent through an electric field to strip away the electrons, leaving just the protons Electric and magnetic fields are the key to a particle accelerator.
103. Straight salary sales compensation plans aren't very common, but they do have a place in some organizations. With this type of structure, you'd pay your sales people a straight albeit competitive salary like all of your other employees, and nothing else. No bonuses, no commissions, and few, if any,



sales incentives. This type of compensation plan is most often used when the industry you operate within prohibits direct sales, when sales people work as part of small groups or teams and all contributions are equal, when your sales team is relatively small, or when your sales people are expected to spend much of their time on other responsibilities other than selling. However, these plans don't tend to offer motivation to sales people, as there are no incentives for them to work harder. Salary plus commission sales compensation plans are possibly the most common plans used today. They're structured in a way that sales people receive a lower base salary along with commission pay that makes up the majority of the total compensation. Organizations use salary plus commission sales compensation plans when there are opportunities to support all sales people on this structure and when there are proper metrics in place for tracking sales to ensure that the splits are fair and accurate. This type of plan is often the better choice as opposed to straight salary because it offers motivation to increase productivity and to achieve goals. It also offers more stability. Sales people will still get some types of pay even if they're in training, when sales are low during certain months, or if market conditions get volatile. However, it can be more complex to administer. Commission only sales compensation plans are exactly what they sound like you pay your sales people for the sales they bring in and nothing else. There is no guarantee of income. These types of plans are easier to administer than salary plus commission and provide better value for your money paid as they are based solely on sales achieved. They also tend to attract fewer candidates, but do attract the most top-performing and hardest working sales professionals who know they can make a good income because they know how to sell. On the other hand, though, they can create aggression within your sales team and



low-income security, which can lead to a high turnover rate, and sales rep burnout from stress.

104. We can ask 2 fundamental questions about animal behavior they referred to as proximate and ultimate. Proximate questions are those concerned with the mechanisms that bring about behavior. Ultimate questions are those concerned with the evolution of behavior. We can divide the proximate and ultimate into 2 sub-questions. For proximate, how does behavior develop and secondly what causes the behavior. For ultimate, you can ask how did the behavior evolve and secondly what is the adaptive of significance of the behavior. What's its purpose? Together these comprise what are called Tinbergen's 4 questions about animal behavior. Niko Tinbergen was one of the founding fathers of the study of the animal behaviors. These questions represent different ways of studying animal behavior and understanding the difference between those 4 questions are fundamental to understanding behavior and indeed the whole of biology. How do we study animal behavior? Well, that depends on the type of question we're hoping to answer.
105. Determinant, human behavior is affected by internal and external factors. At the end of lecture, the speaker mentioned that psychologists are interested in explaining human behavior. Determinant is influenced by two factors, the personal factors which are internal and the environmental factors which are external. The personal factors include people's belief on certain things and their individual thinking about it, while the environmental factors include temperature, air pressure and the others' thinking about them. In conclusion, one's determinants are affected by both himself and the environment.
106. So, this is one picture of probably you all know what it is. When you see it, it is a familiar looking image. It is Something probably we all have some personal experience with, right? This is a chest x-ray that would be taken in your



doctor's office, for example, or a radiologist's office. And it is a good example of Biomedical Engineering and that it takes a physical principle, that is how x-rays interact with the tissues of your body, and it uses that physics, that physical principle to develop a picture of what's inside your body, so to look inside and see things that you couldn't see without this device. And you'll recognize some parts of the image, you can see the ribcage here, the bones you can see the heart is the large bright object down here if you have good eyesight from the distance, you can see the vessels leading out of the heart and into the lungs, and the lungs are darker spaces within the ribcage.

107. We usually see blogging as a two-way interaction, in which the blogger creates the content, and the readers interact or challenge the author. But the case will be much difficult when it comes to government, such as the White House. Because people will become coarser and ride online, especially in the comment area. Hence the governor blog may go wild and chaotic. So the government will have to administrate the comment. Once the government starts administrating the comment, citizens may find the government manipulating what should be said and what should be shown, which contradicts the original intention
108. Actually, a woman in the class I'm teaching at Sydney at the moment, a career woman, expressed this very nicely, although she was talking about something else, she was distinguishing expertise from authority. And certainly linguists because of our training we do have expertise in certain very narrow areas of language, but we don't have the authority over what to do with that knowledge or what to do with other knowledge that the community produces. I guess for me the bottom line is languages are lost because of the dominance of one people over another. That's not rocket science, it's not hard to work that out. But then what that means is if in working with language



revival we continue to hold the authority, we actually haven't done anything towards undoing how languages are lost in the first place, so in a sense the languages are still lost if the authority is still lost

109. When you're learning any new skill, how often you practice makes a big difference in how quickly you make progress. Many people hold to the traditional idea that to master any artisan skill you need at least 10,000 hours of practice. Yet, many new students wonder exactly how many hours of violin practice to put in per week. And although the answer will vary depending on the level of mastery you want to achieve and how quickly, the method of violin practice you employ is really what dictates your advancement. For example, if you want to learn to play the violin, you need practice. If you practice every day and solitary practices... You have to understand your weakness during the practice. For example, when you learn mathematics, and you find you are not good at geometry, then you will have to practice more on geometry. Even for those who are talented, they also need to practice. Essentially, the way you practice has a bigger influence on your development as a violinist than how many hours you log. Repetition has its place, but new schools of thought are emerging that specify this idea, and actually suggest that mindless practice does not develop the mindset and aptitude of a great performer and does not let to become an expert.
110. Soot, which comes from combustion of many different things, is black so it's a strong absorber. In fact, it's second only to CO₂ in terms of warming so it's actually ahead of methane, which you hear a lot about. The interesting thing about soot and aerosols' impact on climate is that their lifetimes are so much shorter. So if we can reduce the soot we can make changes within months versus tens of years. It's not to say we should ignore the CO₂ and the



greenhouse gases but it could buy us some time while we actually do the right strategies to reduce the greenhouse gases.

111. In 1943 what became known as the green revolution began with Mexico unable to feed this growing population shouted for help. Within a few years the Fourth and Rockefeller Foundations founded the international rice research institute in Asia and by 1962 a new strain of rice called IRAs was feeding people all over the world. IOH was the first really big modified crop to make a real impact on world hunger. In 1962 the technology did not yet exist to directly manipulate the genes of plants and so IRH was created by carefully crossing existing varieties. Selecting the best from each generation further modifying them and finally finding the best. Here's the power of modified crops. IR8 with no fertilizer straight out of the box produce five times the yield of traditional rice varieties in optimal conditions with nitrogen it produced 10 times the yield of traditional varieties. By 1980 IR36 resisted pests and grew fast enough to allow two crops a year instead of just on doubling the yield and by 1990 using more advanced genetic manipulation techniques. IR72 was outperforming even IR36. The green revolution saw worldwide crop yields explode from 1960 through 2000.
112. The Skoog is a new university accessible musical instrument. It is designed to use by children or adults with special needs or in fact be used by anyone. It's soft, it's easy to play, it's robust and it can be customized to suit anyone's abilities. The Skoog helps students with special needs by allowing them to get involved in making music themselves. It's an instrument that they can play it and they can take ownership of and start creating their own sounds and music. Traditional instruments are the shape and size and made of the materials they are because of the sound that they need to make. If you want to make a sound like a plucked string, you need a string and it needs to be



under tension, whereas with a Skoog, because it's a mixture of software and a sensor, then thus the computer can handle making the sound. And so we can design an object that's designed to be touched and designed to be played with. In developing the screen and working with kids in the schools and in the classrooms, it's really helped us make the Skoog something that's usable by the children themselves. They've informed us massively on how it needs to work and they've given their opinions on colors and designs. And just the feedback they've given to us has been just marvelous. It's just so enriching and it's really inspiring to actually work with these kids, particularly when you can provide them with an ability to start to play their own music as opposed to just taking part through listening and listening to other musicians and really learning from.

113. Make sure you take notes while listening to lectures. You may not get time to write down full sentences. If you can write incredibly fast, then that's great. Most probably you are not going to be able to write entire sentences, so try writing down key points that can help you to recall the content. Try to include any facts, figures, numbers or dates given as these should be relatively easier to note down. The lecture will be longer than the time allotted so you do not need to cover all points when you speak. So do not worry if you miss out on few things while taking notes. You only have 10 seconds preparation time before you speak. You don't want to be writing down notes ideally during these 10 seconds, but instead, you would want to quickly review your notes and get have an idea of what you are going to say. If the speaker mentioned any terminology or name that you might not be familiar with, do not write the names but use alternative word to replace it. For example, if it's said "Dr. Michael Alexandra", you just say a doctor said blab blab blab.



114. Indeed, the library. We've all been to a historic library. We've all enjoyed the smell of a historic library. But what is it? And what does it mean? When we've recently, when at UCL Center for Sustainable Heritage, we've recently been asked to access the environment at another historical library at Saint Paul's Cathedral, the Wren Library, an incredible place. And it has a such an intensive smell of old books. And we were also asked for the first time really, I was actually taken aback by the brief, we were asked whatever you do please preserve the smell. It is so important to our audience. It is so important how people perceive the library. So that is, that was quite an important message in our research. And indeed, the smell is an important way of how we communicate with the environment. This piece of research was done by an advertising company because advertisers are so interested in how we how we interact with each other and the environment. And we see that the majority of people use sight obviously to interact with the environment, but on the second place, we see the smell is also very, very important
115. Correct smooth English, delivered at a natural rate, carries more marks than content here as well. You get fewer points if your content is correct and your English is bad. This doesn't mean you talk about 'life on mars' if the topic is on 'conserving nature'. Stay broadly to the topic all the way. You will need to say some key point from lecture and in the middle, you can insert sentences like "The lecture also mentioned that", "According to the lecture," to maintain your fluency, if you pause or say aah, hhh, then you will lose points. Always remember to answer with clear pronunciation and always maintain fluency. If you pause in middle, you will get bad score, and also keep in mind that after 3 seconds of pause the microphone stops recording.
116. Cover key points, show relationships between things and include implications and conclusions. If you miss out on the key points/main idea of the audio, you



will lose marks in the content. In other words, you must understand the main ideas and key points are crucial parts in these audios, and you must cover them in order to get the desired listening score.

117. Community service is an important component of education here at our university. We encourage all students to volunteer for at least one community activity before they graduate. A new community program called “One on One” helps elementary students who’ve fallen behind. Your education majors might be especially interested in it because it offers the opportunity to do some teaching, that is, tutoring in math and English. You’d have to volunteer two hours a week for one semester. You can choose to help a child with math, English, or both. Half-hour lessons are fine, so you could do a half hour of each subject two days a week. Professor Dodge will act as a mentor to the tutors. He’ll be available to help you with lesson plans or to offer suggestions for activities. He has office hours every Tuesday and Thursday afternoon. You can sign up for the program with him and begin the tutoring next week. I’m sure you’ll enjoy this community service and you’ll gain valuable experience at the same time. It looks good on your resume, too, showing that you’ve had experience with children and that you care about your community. If you’d like to sign up, or if you have any questions, stop by Professor Dodge’s office this week.
118. Aquaculture, the farming of fish, shrimp, shellfish and seaweeds, has been the sources of human protein for nearly four thousand years, especially in Asia. In the last decade, however, there is been unprecedented growth in aquaculture production, more than 300% since 1984, which has increased the importance of the modern food supply. It’s the world’s fastest growing food production activity. And globally, more than 25% of the odd fishing and shellfish production in 1999 was attributable to aquaculture. Yes, this industry’s



contributions to human diet is actually greater than the numbers imply, whereas 1/3 of the conventional fish catch is used to make fish meal and fish oil. Virtually all farmed fish are used as human food. Today, nearly 1/3 of fish consumed by human is the product of aquaculture, and that percentage will only increase as aquaculture expands the world's conventional fish catch, for the oceans and lakes continues to decline because of overfishing and environmental damage.

119. Traffic light colors (red, amber and green) are used to indicate food's nutritional values according to the healthy standard. Different colors represent different food types, so that people can determine what to eat when they need some certain types of nutrients. The responsibility to label food properly on the packages is on the retailers. Thus consumers can be aware of food with less salt or less fat. This system makes it easier for consumer to make decisions.
120. The impact on young Australians who are interested in buying a home of their own has been very significant. Australia's housing affordability now shapes the typical housing cycle or housing career as some people call it. Most Australians in the normal course of events are people who move through the housing cycle in a way that matches the stages of life that they're at. So, they move out of the family home in their late teens or early 20s as they gain their independence from their families, then they rent save for a home they can afford as either a group, or maybe a couple. And maybe they can upgrade it when they have a family in their middle age, they are more than likely to have paid off their mortgage. And that means they have housing security in their old age. That's no longer the typical housing cycle for Australians, young people generally live at home for much longer than they once did. They generally rent for longer and they're more likely to be saddled with a



mortgage not just into their middle age but more often than not into their retirement as well. In fact, in 2006, 65,000 retiree households were still paying off the mortgage. Affordable rent is also an elusive right around Australia. We have very low rental vacancies, we see high turnover as landlords want to maximize their profits in tight market, and we see less long-term or lifelong rental, as we see in other countries and other economies.

121. Why should we bother studying animal behavior? Well, first and foremost, because we are interested in understanding why animals do what they do. There are lots of other reasons for studying animal behavior. Conservation biologists need to know what animals do if they're going to save them. Are those animals social or solitary? How much space do they need and how many mates do they have? Sometimes you can't predict the outcome of the research. Fernando Nottebohm started out being interested in how birds know what to sing. Yet his research eventually led to a complete overhaul of the entire field of neurobiology, a totally unanticipated yet utterly monumental effect. And this is the course textbook by John Alcock the fact that this is in its ninth edition tells you how fast an afield animal behavior is. There are lots of new developments.
122. The sound of a cracking knee isn't particularly pleasant. But it gets worse when you listen up close. Knee-cracking recording "It does for most people. But for me, it actually just makes me excited." Omer Inan, an electrical engineer at Georgia Tech. "I actually feel like there's some real information in them that can be exploited for the purposes of helping people with rehab." Inan's experience with cracking knees goes back to his days as an undergrad at Stanford, where he threw discus. "If I had a really hard workout, then the next day, of course, I'd be sore, but I'd also sometimes feel this catching or popping or creaking every now and then in my knee." A few years later, he



found himself building tiny microphones at a high-end audio company. So when he got to Georgia Tech and heard the Defense Advanced Research Projects Agency, DARPA, wanted better tech for knee injuries, he thought: knee-cracking recording Why not strap tiny microphones to people's knees, to eavesdrop as their legs bend? "What we think it is, is the cartilage and bone rubbing against each other, the surfaces inside the knee rubbing against each other, during those movements." He and a team of physiologists and engineers built a prototype with stretchy athletic tape and a few tiny mics and skin sensors. And preliminary tests on athletes suggest the squishy sounds the device picks up are more erratic, and more irregular, in an injured knee than in a healthy one. Which Inan says might allow patients and doctors to track healing after surgery. Details appear in the IEEE Transactions on Biomedical Engineering. "The primary application we're targeting at first is to give people a decision aid during rehabilitation, following an acute knee injury, to help them understand when they can perform particular activities, and when they can move to different intensities of particular activities." A useful thing to take a crack at.

123. You can see that the two charts, each give quite a different picture of the performance of boys and girls in the two key subjects of Math and English. It shows that in English, girls consistently outperform boys over a period of 6 years, achieving scores about 10% above their male peers. There is quite a different picture when we look at the Math results with no real difference between genders in the results. What is the explanation for these key differences? To answer this question, researchers look at biological and cognitive factors, and a range of social factors. The interaction between these different components in early childhood development are seen as maintained and reinforced in the school context. And this leads to distinct



gender patterns of behavior and skills with direct consequences for school performance and achievement. The ultimate uses of this evidence (are) to show that biological factors, such as patterns of cognitive developments are closely linked to social factor, such as learned gender categories. These cognitive skills are learned both pre-school and subsequently at school, supported by the responses of teachers, creating a reinforcement of patterns.

124. I've been thinking a lot about the world recently and how it's changed over the last 20, 30, 40 years. Twenty or thirty years ago, if a chicken caught a cold and sneezed and died in a remote village in East Asia, it would have been a tragedy for the chicken and its closest relatives, but I don't think there was much possibility of us fearing a global pandemic and the deaths of millions. Twenty or thirty years ago, if a bank in North America lent too much money to some people who couldn't afford to pay it back and the bank went bust, that was bad for the lender and bad for the borrower, but we didn't imagine it would bring the global economic system to its knees for nearly a decade. This is globalization. This is the miracle that has enabled us to transship our bodies and our minds and our words and our pictures and our ideas and our teaching and our learning around the planet ever faster and ever cheaper. It's brought a lot of bad stuff, like the stuff that I just described, but it's also brought a lot of good stuff. A lot of us are not aware of the extraordinary successes of the Millennium Development Goals, several of which have achieved their targets long before the due date. That proves that this species of humanity is capable of achieving extraordinary progress if it really acts together and it really tries hard.
125. At the top, you would have a king. Now the king would rule over a kingdom. Now, this is not so easy to govern especially during the Middle Ages. And the king might owe many people, things especially people who help the king



come to power, helped him dispose the previous king or to conquer this land. And so in exchange for that and to help govern, he might grant land or feasts to other people. And the key currency in the Middle Ages under the feudal system is land. And land in exchange for loyalty and service. So this whole thing is a kingdom. Now right over here, this is a Duchy. And a Duchy will be controlled by a Duke. I guess I didn't call it duckie because that just doesn't sound as serious. So the king might grant a Duchy, a Duchy to a Duke and in exchange, the Duke would provide loyalty pledged their fealty. If the kingdom is threatened, the Duke will fight alongside. The King would provide their own troops if the king wants to go conquer other territories, same thing, and also provide the king with taxes which might be in the form of coinage depending on what time and region we are in the Middle Ages or it might be in the form of a percentage of the agricultural production from this Duchy.

126. When Australians engage in debate about educational quality or equity, they often seem to accept that a country cannot achieve both at the same time. Curriculum reforms intended to improve equity often fail to do so because they increase breadth or differentiation in offerings in a way that increases differences in quality. Further, these differences in quality often reflect differences in students' social backgrounds because the "new" offerings are typically taken up by relatively disadvantaged students who are not served well them. Evidence from New South Wales will be used to illustrate this point. The need to Improve the quality of education is well accepted across OECD and other countries as they seek to strengthen their human capital to underpin their modern, knowledge economies. Improved equity is also important for this purpose, since the demand for high-level skills is widespread and the opportunities for the low skilled are diminishing Improved equity in education is also important for social cohesion. There are countries in which



the education system seems primarily to reproduce existing social arrangements, conferring privilege where it already exists and denying it where it does not. Even in countries where the diagnosis might be less extreme, the capacity of schooling to build social cohesion is often diminished by the way in which schools separate individuals and groups

127. When we have droughts, the rings were very narrow and the more extreme the narrower the ring is we're trying to identify patterns and widen their wings. You can come to think of that as a barcode in the food that you might buy in the store, trees in an area you have not exactly the same pattern, but a similar pattern of wide and narrow range just like that barcode. We get to the point where we can just look across samples okay there's 1580 and their 1735. We know where those difficult years are we able to look at the records in the rings. And from that reconstruct streamflow much further back than we can just with historical records in some areas under the best conditions were the best species we can have up to 10,000 years record from tree rings. we have maybe 5200 years historical records from the rivers around here. We have trees and go back several hundred years. If you look at the Weaver River, We have about 100 years of record. to gives us a rough idea of how long droughts of Benin have severely been but it's only hundred years record and the trees a been around for six or 700 or more years, how can they give us a much longer record of those droughts. sometimes as we look in the tree rings we see droughts that are much longer, much more severe than anything we see in the historical record. We've had droughts that have lasted for more than a decade we had one of the last for 16 years, water managers can actually incorporate those in the forecast models to help us better prepare for droughts in future. We are excited to be able to take the information and



give that water managers now because they haven't had that for the Wasatch front before.

128. As a speech-language pathologist and as a multilingual mother of bilingual children, I am finding myself shocked and confused at the number of parents I run into who have chosen not to speak their native language to their children for various reasons or who have been persuaded to believe that speaking their native language to their children will hurt them socially or academically if the primary language of the community is different. So why should parents talk to their children in their native language? The first and simplest reason is that it is the language in which they are likely to be most dominant or proficient, which in turn is the language in which they are able to provide quality language input as well as support effectively and consistently. Even if a parent is able to pick up the language of the community, that parent's vocabulary, grammar skills, and ease of communication will probably remain stronger in the native language. I've often heard of recommendations from professionals and educators for parents to stop speaking the native language so that confusion is not created, so that language delays won't occur, so that children can do well in school, but the research literature says the exact opposite! The other occurrence that appears to be more prevalent is for the native language to be spoken from birth to preschool with a sudden shift to the community language once the child enters early intervention programs or school.
129. Honeybees do a waggle dance to direct other bees to the source of nectar. The dancing bees like this one can be halted by a head-butt from another bee. Now research has found that this head-butt is actually a warning signal. A feeding station was set up in the lab to mimic the a source of nectar, then foraging bees were introduced to the dangers at the station, such as



competition from rival colonies. When foragers returned to the hive they stopped bees dancing. Scientists think the behavior warns dancers of a dangerous source of nectar.

130. Curiosity just found that Martian soil is 2% water, so a sample sand was taken from rock mass which is this area in the Gail crater. Curiosity analyzes it using an instrument called Sam, a kind of test chamber inside the rover that has a gas chromatograph, a mass spectrometer, and a laser spectrometer. It puts the sand in the same, heats it to 835 °C, and out comes water along with some carbon dioxide. Liquid water means life, life in a way that we recognize potentially existed on Mars sometime in the past. Maybe not as complex as all the stuff that we have on Earth, but microscopic life like bacteria and other tiny organisms. Yes, there is reason to believe life once existed on Mars. It also means that we potentially have a source of water to drink when we get there because you know we are going there. So, the downside, remember a few months back when there are reports that Mars is covered in poisonous dust. The orange dust is called regolith and it's full of nasty stuff like perchlorate, which are used here on Earth in rocket fueling can mess up your thyroid gland if you expose them. Also has silicates which can mix with the water in your lungs and turn into chemicals that cause respiratory diseases, so separating the Mars water from all that stuff in the soil is not going to be an easy task but it could be done and it could mean a supply of safe drinking water for future Mars colony.



Answer Short Question

1. What is the punctuation used at the end of a sentence?
Answer: full stop / period
2. What is the horizontal line that separates the globe into two halves?
Answer: equator
3. What is the nominal form of the wide?
Answer: width
4. What document does a students get when graduating from the university?
Answer: graduation certificate
5. What do you call the document that tells your qualification and work experience?
Answer: cv /curriculum vitae
6. What do you call a difficult time when economic activities slow down. And there are more people unemployed?
Answer: recession
7. What is the description of events that is spoken with background music during a film or a play?
Answer: narration
8. What device is used to measure the height of mountains?
Answer: altimeter
9. What is the long speech that is spoken by only one actor in a film or play?
Answer: monologue



10. What is the list that shows the names of actors and actresses in a movie?

Answer: cast

11. If you have a toothache, who will you go to?

Answer: dentist

12. Which century is the year 1642 in?

Answer: seventeenth

13. What stellar system does the earth belong to?

Answer: solar system

14. What is the legal document protecting someone's intellectual property?

Answer: patent

15. What do people hold overhead when it is raining?

Answer: umbrella

16. How do you call someone with no hair?

17. Answer: bald

18. What do we call programs that run on a computer?

Answer: Software

19. What do you call your cousin's father?

Answer: Uncle

20. What do we call the activity of taking out weeds from the ground?

Answer: Weeding

21. What makes a refrigerator or any other electrical devices work?

Answer: Electricity

22. What do we call drawings or writing on a wall, especially in a public place?

Answer: Graffiti

23. What do we call the place where pedestrians can cross a street?

Answer: Crosswalk / pedestrian crossing / zebra crossing



24. What do we cover our necks with in the winter?

Answer: Scarf / scarves

25. What do people cover their heads with?

Answer: Hats

26. When you want to include a picture or other file into an email, what will you do?

Answer: Attach

27. What do we call the largest land animal living in Africa or India?

Answer: Elephant

28. Which one of the following is not a mythological animal, unicorn, giraffe, dragon or mermaid?

Answer: Giraffe

29. What do you call the curve of a road or a river?

Answer: Bend

30. What do we call a person who is waiting for doing something?

Answer: Standby

31. What do we call a shape of six sides?

Answer: Hexagon

32. Who is the person who shares the same room with you?

Answer: Roommate

33. What do we call a diagram in which an object would appear to viewers if it were cut from top to bottom?

Answer: Section

34. What do we call a person who studies mystery?

Answer: Mystic



35. What do we call the event in which people move through a public place to celebrate an important day or event?
Answer: Parade
36. What is the top surface inside the room?
Answer: Ceiling
37. Which is the biggest one, the elephant, the tiger, or the cheetah?
Answer: Elephant
38. How do we call a person who is about the same age?
Answer: Contemporary / peer
39. A business doesn't want to make a loss - what does it want to make?
Answer: Profit
40. What would call a doctor who sells prescribed medicines?
Answer: Pharmacist / Chemist.
41. What is the legal document protecting someone's intellectual property?
Answer: Patent
42. A manufacturing process releases poisonous gases. What is the most important safety measure for workers at this plant ensuring good ventilation, or appropriate footwear?
Answer: Ensuring good ventilation
43. What would you call a specialist who repairs leaking water pipes?
Answer: Plumber
44. What is the animal with white ivory and long trunk?
Answer: Elephant
45. How many quarters in a calendar year?
Answer: Four
46. How many days are there in a fortnight?
Answer: Fourteen



47. What is the ceremony where two people get married?
Answer: Wedding.
48. How many years does a centennial celebrate?
Answer: One hundred.
49. What does a thermometer measure?
Answer: Temperature.
50. How would you describe an economy that is largely based on farming?
Answer: Agricultural
51. In addition to A, E, I, O, what is the other vowel letter?
Answer: U
52. If you are celebrating a bicentennial event, how many years ago did this event happen?
Answer: Two hundred.
53. What is the opposite of majority?
Answer: Minority
54. What is the term to specifically describe either a brother or a sister?
Answer: Sibling.
55. Some calendars begin the week on Sunday, what is the other day which commonly starts a week?
Answer: Monday.
56. What's the name of the building where you can borrow books?
Answer: Library.
57. What is another way to say the arrangement of musical notes in a tune?
Answer: Melody.
58. What do we call a period of years?
Answer: Century
59. What is the joint connecting your foot to the leg?



Answer: Ankle

60. What do you call a piece of equipment we use to look at stars?

Answer: Telescope

61. What are the paintings or photos of people especially when they include someone's face, head and shoulders?

Answer: Portrait

62. What is a violent conflict between two or more countries?

Answer: War

63. What is the joint that connects your hand to your arm?

Answer: Wrist

64. When you bake a cake, where do you put the tray into?

Answer: Oven.

65. What do you call a short period of break between the parts of a concert or a play?

Answer: Intermission.

66. What is the shape in geometry that has three sides?

Answer: Triangle

67. What is place that a person lives permanently?

Answer: Home.

68. How many sides does an octagon have?

Answer: Eight.

69. What do people cast in an election?

Answer: Vote. Ballot.

70. What is the opposite of 'guilty'?

Answer: Innocent.

71. How many sides does a hexagon have?

Answer: Six.



72. How many sides does a pentagon have?
Answer: Five
73. In what room do scientists usually do experiments?
Answer: Laboratory.
74. What do you call someone who does a job with no salary or offers to do something without being forced?
Answer: Volunteer.
75. What kind of book would you use to look up a word that you don't understand?
Answer: Dictionary
76. What is the book that you write to describe your own life story?
Answer: Autobiography
77. What is the opposite of positive?
Answer: Negative.
78. In which compass direction does the Sun rise from?
Answer: East.
79. What is the punctuation used at the end of a sentence?
Answer: full stop / period
80. What is the shape of the earth's orbit?
Answer: oval / ellipse
81. What does the earth revolve around?
Answer: sun
82. What is a mass of ice floating in the sea?
Answer: iceberg
83. What do you call your uncle's son?
Answer: cousin
84. What do we call a person who is hurt in a criminal case?



Answer: victim

85. What object do we open a window or a door by?

Answer: handle

86. If any experiment is duplicated, how many times it is performed?

Answer: two / twice

87. What do we call a person who does a job without being paid?

Answer: volunteer

88. What is the process of breaking down plastic and glass and using it again?

Answer: recycling

89. What do we call a person who is registered for the election?

Answer: candidate

90. What are the animals that have fins?

Answer: fish

91. What do you call the case you use to carry documents?

Answer: briefcase

92. What do we use to get to the third floor when the elevator is broken?

Answer: stairs

93. What is the cooking process to make cakes or bread?

Answer: baking

94. How many legs does a tripod have?

Answer: three

95. What is the opposite of white?

Answer: black

96. What is the opposite of maximum?

Answer: minimum

97. What do we call a person who fights against the government?

Answer: rebel



98. What do we call someone who studies languages?
Answer: linguist
99. What do we call a group of mountains such as the Himalayas?
Answer: range
100. In winter, what activities do people usually do on snow mountains by standing on long, thin boards?
Answer: skiing
101. What do we call a person who buy things in a shop?
Answer: customer / buyer / shopper
102. What instrument would you use when you want to weigh something up?
Answer: scale
103. What is the storyline or the series of scenes of novels, movies, short stories or plays?
Answer: plot
104. What is the adjective opposite to 'rural'?
Answer: urban
105. What is the star that gives heat and light to the Earth?
Answer: sun
106. What is the main building of a large company or an organization?
Answer: headquarters
107. What do we call a section or a part of a book?
Answer: chapter
108. What do you call a person who works in a company?
Answer: An Employee
109. What is the big musical instrument that has 88 black and white keys?
Answer: Piano
110. What is the antonym of vertical?



Answer: Horizontal

111. What is one half of 100%?

Answer:50%

112. What is more fuel efficient, a car or a truck?

Answer: A car

113. What is three quarters of 100%?

Answer:75%

114. What does ASAP mean?

Answer: As soon as possible

115. What does a Sundial measure according to the shadow in the sunlight?

Answer: Time

116. Which instrument is used to measure variations in temperature?

Answer: Thermometer

117. What do we call a person who performs operations? Physician or Surgeon?

Answer: Surgeon

118. Who is the person who works in a hospital and can-do operations?

Answer: Surgeon

119. What do you call the strap that secures a person in a car or an aeroplane?

Answer: Seatbelt

120. What do you call a list in front of a book which outlines the structure of a book?

Answer: Table of Contents

121. What is the opposite of "Successor"?

Answer: Predecessor

122. What do you call the alphabetical list, at the end of the textbook that tells you where to find specific information?

Answer: Index



123. If there are 8 black balls and 1 white ball, and I randomly pick one, which color is most likely to be picked?

Answer: Black

124. In the sentence: "He has been quite upset since he went back to school.", which word uses a past tense?

Answer: Went

125. Which kind of mountains can erupt?

Answer: Volcano

126. Where does camel normally appear?

Answer: Desert

127. What do we call the passages between the rows of seats in the theater?

Answer: Aisles

128. Which is the second month of the year?

Answer: February

129. How do we describe something between continents?

Answer: Intercontinental

130. How do we call the flat surface at the front of a television or computer, on which we can see pictures?

Answer: Screen

131. What's the continent where people say Hindu or Chinese?

Answer: Asia

132. How do you call a place where trains or buses regularly stop so that passengers can get on and off?

Answer: Station

133. What heavenly body makes an object cast a shadow during the day?

Answer: Sun.

134. What do we call money borrowed from bank?



Answer: Loan

135. What do we call an experienced person who advises and helps less experienced people?

Answer: Mentor

136. In winter, what activities do people usually do on snow mountains by standing on a long, thin board?

Answer: Skiing.

137. What device is used for breathing?

Answer: Ventilator

138. What do we call a device that cuts grass?

Answer: Mower

139. What do you call a seat with legs but with nothing to support your arms or back?

Answer: Stool

140. What do we call a powered truck used to lift and move materials over short distances?

Answer: Forklift / lift truck

141. Whose job is it to treat people that are ill or have an injury at a hospital?

Answer: Doctor

142. A business doesn't want to make a loss - what does it want to make?

Answer: Profit

143. A dozen is a grouping of which number?

Answer: Twelve

144. A lack of which kind of weather causes drought, dry weather or rainy weather?

Answer: Rainy weather

145. A list of events placed in time order is usually described as what?

Answer: A chronology / a timeline



146. A planet or a galaxy that is very distant can be seen with what device?
Answer: Telescope
147. At what ceremony do students receive their degree or diploma at the end of their period of study?
Answer: Graduation
148. What is the name of xx' s older sister?
Answer: Flow Chart
149. From where can you have a full view of a building, the outside, inside or top?
Answer: The outside
150. How do we call the people who work in companies?
Answer: Employee or officer
151. How do you describe the desert, humid or dry?
Answer: Migration
152. How many days in a week? 7 days 2SHow many months are in a year?
Answer: Activate Windom Go to Settings to ACTi Twelve
153. How many people are there in a quartet?
Answer: Four
154. How many seasons are there in a year?
Answer: Four
155. How many sides are there in a bilateral agreement?
Answer: Two
156. How many times a year is a quarterly journal published?
Answer: Four
157. How many years are there in a century?
Answer:100 (years)
158. How many years are there in a millennium?
Answer: A thousand years



159. How many years does it take to finish undergraduate study?
Answer: Three or four years
160. If a parent have a couple of children, how many children does he have?
Answer: Two
161. If a person is doing an experiment, what would he wear to protect his eyes?
Answer: Glasses / goggles
162. If something such as fabric or medicine is artificially made, not natural, what do we say it is?
Answer: Artificial or Manmade or Synthetic
163. If you are celebrating a biannual activity, how many years ago did you celebrate it last time?
Answer: half a year
164. What gas will be generated from the boiling water?
Answer: water vapor steam
165. What is the line where the sky meets the land?
Answer: horizon
166. What clothing do people wear, such as students or nurses?
Answer: uniform
167. In what room do scientists usually do experiments?
Answer: laboratory
168. How do we call the people who study animals and plants?
Answer: biologists
169. What is the verb describing the process that water becomes ice?
Answer: freeze
170. What will students receive at the end of the term?
Answer: transcript
171. How do we describe a person who does something at the right time?



Answer: Punctual

172. What do judges, solicitors and barristers have to be experts in?

Answer: Law

173. What do you call a period of 365 days?

Answer: Year

174. What does a guitarist pluck when playing the instrument?

Answer: String

175. What drink do people get from cows?

Answer: Milk

176. What do we call the head of a university department?

Answer: Dean

177. What do you get if you successfully complete a university course?

Answer: Diploma

178. If you ask someone how old they are, what do you want to know?

Answer: - Age

179. What do you use to call or text a friend?

Answer: Cell phone

180. What do you call the type of political system that is said to be of the people, by the people and for the people?

Answer: Democracy

181. Who should you go to see if you don't feel well?

Answer: Doctor

182. Which is the shortest month of the year?

Answer: February

183. What does an atlas contain?

Answer: Maps / map

184. What do you call the part of the theatre where actors perform?



Answer: Stage

185. What color do you get if you mix red and yellow?

Answer: Orange

186. Which is the season of the year when plants start growing again?

Answer: Spring

187. What do we call buying and transporting goods from another country?

Answer: Import

188. What do we call a short piece of writing containing the main ideas in a document?

Answer: Abstract / summary

189. What do we call a person who is in charge of a meeting?

Answer: Chairman / chairwoman / chairperson

190. What do we call the head of a court?

Answer: Judge

191. What is the bone structure that protects the brain?

Answer: Skull

192. What do we call the opening in the face used for speaking and eating?

Answer: Mouth

193. What is the direction of the longitude lines on the earth's surface?

Answer: Vertical

194. What do we call a powered truck used to lift and move materials over short distances?

Answer: Forklift / Lift Truck

195. What do you call a seat with legs but with nothing to support your arms or back?

Answer: Stool

196. What do we call a horse-like animal with a single horn on the head?



Answer: Unicorn

197. What do workers get by working overtime?

Answer: Overtime pay / overtime payment

198. What do we call the extra working time?

Answer: Overtime

199. Who prescribe patients medicine?

Answer: Doctors

200. What does 'MBA' stand for?

Answer: Master of Business Administration

201. If a figure is pentagon, how many sides does it has?

Answer: Five

202. Which one would you use to describe the desert, aridity or humidity?

Answer: Aridity

203. What do we call a doctor who can sell prescribed medicines?

Answer: Chemist/Pharmacist

204. What's the force that pushes everything to the earth?

Answer: Gravity

205. What device do you use to type when you use a computer?

Answer: Keyboard

206. What is the last paragraph of an essay?

Answer: Conclusion

207. To which system does the earth belong?

Answer: Solar system

208. What is the opposite of 'positive'?

Answer: Negative

209. In which direction does the Sun rise from?

Answer: East



210. Where does camel normally appear?
Answer: Desert
211. In the sentence: "He has been quite upset since he went back to school.", which word uses a past tense?
Answer: Went
212. If there are 8 black balls and 1 white ball, and I randomly pick one, which color is most likely to be picked?
Answer: Black
213. What do you call the alphabetical list, at the end of the textbook that tells you where to find specific information?
Answer: Index
214. What is the opposite of "Successor" ?
Answer: Predecessor
215. The science of animal life. Biology or Zoology?
Answer: – Zoology
216. Something that is quickly and easily set on fire and burned. Flammable or Non flammable?
Answer: – Flammable
217. Not limited by person or number. Infinite or Finite?
Answer: – Infinite
218. Art and science dealing with rules of language. Grammar or Literature?
Answer: – Grammar
219. A string of beads used for counting prayers. Rosary or Garland?
Answer: – Rosary
220. A building for keeping and feeding horses in. Stable or Kennel?
Answer: – Stable
221. An animal living both on land in water?



Answer: – Amphibian

222. A man who thinks only for himself?

Answer: Egoistic or Self-centered

223. A disease which spreads by contact?

Answer: Contagious disease

224. What do people wear, if they can't see very well?

Answer: – Spectacles

225. What does an optic person deal with?

Answer: Spectacles

226. What do you call a piece of equipment we use to look at stars?

Answer: Telescope

227. What do you call the strap that secures a person in a car or an airplane?

Answer: Seat belt

228. Who is the person who works in a hospital and can-do operations?

Answer: Surgeon

229. What do we call a person who performs operations? Physician or Surgeon?

Answer: Surgeon

230. Which instrument is used to measure variations in temperature?

Answer: Thermometer

231. What does a Sundial measure according to the shadow in the sunlight?

Answer: Time

232. What is three quarters of 100%?

Answer:75%

233. What is more fuel efficient, a car or a truck?

Answer: A car

234. What is one half of 100%?

Answer:50%



235. What is the antonym of vertical?
Answer: Horizontal
236. What is the big musical instrument that has 88 black and white keys?
Answer: Piano
237. What do you call a person who works in a company?
Answer: An Employee
238. What is the opposite to "predecessor"?
Answer: Successor
239. What do we call a picture sent from the post office without an envelope?
Answer: Postcard
240. What do we call all the staff of a department in a college?
Answer: Faculty
241. What do we call a piece of artificial hair worn by a judge in some courts of law?
Answer: Hairpiece / wig
242. What part of a room is over your head?
Answer: Ceiling
243. What part of the day does a sunrise happen in?
Answer: Dawn
244. What do we call a ship that carries goods from one place to another?
Answer: Freighter / cargo ship
245. What do we call the opposite of destiny?
Answer: Free will
246. What is 'BA' for, such as history and literature?
Answer: Bachelor of arts
247. What do we call a political institution or body that is responsible for a country?



Answer: Government

248. What do we call a group of sheep or birds?

Answer: Flock

249. What do we call the money an employer pay an employee because of the damage caused in work?

Answer: Compensation

250. What do we call a person who leaves college before finishing the studies?

Answer: Dropout

251. Where are you going if you are in a downward direction in a map?

Answer: South

252. What is the room in which you keep things when you don't need them?

Answer: Storeroom

253. What do we call a material that helps to insulate the burn?

Answer: Fireproof material

254. What do we call a set of answers to exercises or problems?

Answer: Key

255. What is the verb that describes traveling on boat?

Answer: Cruise

256. Who is a person who gives evidence in court?

Answer: Witness

257. What do you call the daughter of your sister or brother?

Answer: Niece

258. Where do passengers stand waiting for a train in the railway station?

Answer: Platform

259. What is the process of choosing a person for a position by voting?

Answer: election

260. What are the imaginary lines that run around the earth vertically?



Answer: longitude

261. What do you pay when you park in a wrong place?

Answer: fine / parking fine

262. What do we call a large building with a square base and triangular sides?

Answer: pyramid

263. What is the opposite of horizontal?

Answer: Vertical

264. What do we call a person undergoing treatments in hospital?

Answer: patient

265. What do we call a person who takes care of children when their parents are at work?

Answer: babysitter / nanny

266. What do we call a bicycle with two seats and two pairs of handles?

Answer: tandem

267. what we call it if trees are cut down in a large area?

Answer: deforestation

268. What fruit category includes orange, mandarin and lemon?

Answer: citrus

269. What do we call a line of people waiting to do something?

Answer: queue

270. What is the mark used to show that one or more letters have been left out?

Answer: apostrophe

271. What do we call a notice, picture or film telling people about a product or service?

Answer: advertisement

272. What do we call an underground train system?

Answer: metro / subway



WRITING





SUMMARIZE WRITTEN TEXT

1. The advantages and disadvantages of solar power compared to other forms of renewable energy have been greatly debated. While obviously superior to some forms of energy, solar power's high cost and efficiency dependent on geography have limited its appeal. However, a large number of advantages also merit further development and even possible adaptation for residences. Advantages of Solar Power Solar energy remains popular because it is both a renewable and clean source of energy. These advantages along with the hope that eventually nations can use solar power to decrease global warming ensure its popularity. Renewable Solar energy is a true renewable resource. All areas of the world have the ability to collect some amount of solar power and solar power is available for collection each day. Clean Solar energy is non-polluting. It does not create greenhouse gases, such as oil based energy does, nor does it create waste that must be stored, such as nuclear energy. It is also far more quiet to create and harness, drastically reducing the noise pollution required to convert energy to a useful form. Residential size solar energy systems also have very little impact on the surrounding environment, in contrast with other renewable energy sources such as wind and hydroelectric power. Low Maintenance Solar panels have no moving parts and require very little maintenance beyond regular cleaning. Without moving parts to break and replace, after the initial costs of installing the panels, maintenance and repair costs are very reasonable.

Answer:

Despite great debate, solar energy, whose advantages merit further development and possible adaptation for residences, remains popular



because it is a true renewable resource which is available for collection in all areas of the world each day and it is non-polluting, creating no greenhouse gases or waste, reducing noise pollution and having very little impact on the surrounding environment, without reasonable maintenance and repair costs.

2. Many insecurities, fears, and doubts stem from lack of understanding or lack of knowledge about something. The more you understand and know about a situation, the more comfortable you will be and thus the less power your shyness will have over you. Let's take for example the subject of public speaking. This is an activity that terrifies most people half to death, but only because most people don't have much knowledge about it. If you do some research and investigation, you'll come to learn that it's perfectly natural to be terrified of public speaking, and that almost every single person has the same fears and insecurities that you do. When you take it further and ask yourself why you are so terrified of this, you'll come to learn that you are scared of being judged, or of being laughed at. From there, you can go and read and learn about people who are good at public speaking—learn their tips and strategies. This way you are much more prepared because your knowledge on the subject is vast. As a result of this, your confidence will already be much higher than before, which might allow you to attempt public speaking when you join a club like Toastmasters. As you practice more, you will naturally become even more confident. This rule applies to any area where you feel insecure. Read and research as much about the topic as possible. This will help increase your confidence enough to give the activity a try to see if you might be able to become better at it. And that initial confidence to take action is all you need to get the ball rolling and overcome your shyness.

Answer:



Public speaking, an activity that terrifies most people half to death, but only because they do not have much knowledge about it, terrifies you as you are scared of being judged or laughed at, and you can go read and learn about people good at public speaking, by which you are more prepared with higher confidence allowing you to attempt public speaking.

3. Disabled people were among the early adopters of personal computers. They were quick to appreciate that word processing programs and printers gave them freedom from dependence on others to read and write for them. Some of these disabled early adopters became very knowledgeable about what could be achieved and used their knowledge to become independent students at a high level. They also gained the confidence to ask that providers of education make adjustments so that disabled students could make better use of course software and the web, rather than just word processing. For some disability groups, information in electronic format (whether computer-based or web-based) can be more accessible than printed information. For example, people who have limited mobility or limited manual skills can find it difficult to obtain or hold printed material; visually impaired people can find it difficult or impossible to read print, but both these groups can be enabled to use a computer and, therefore, access the information electronically. Online communication can enable disabled students to communicate with their peers on an equal basis. For example, a deaf student or a student with Asperger's syndrome may find it difficult to interact in a faceto-face tutorial, but may have less difficulty interacting when using a text conferencing system in which everyone types and reads text. In addition, people's disabilities are not necessarily visible in online communication systems; so disabled people do not have to declare their disability and are not perceived as being different.



Answer:

Disabled people were among the early adopters of personal computers, for some of which, information in electronic format can be more accessible than printed information, and online communication can enable disabled students to communicate with their peers on an equal basis, so people's disabilities are not necessarily visible in online communication systems and disabled people do not have to declare their disability and are not perceived as being different.

4. Over the years, language teachers have alternated between favoring teaching approaches that focus primarily on language use and those that focus on language forms or analysis. The alternation has been due to a fundamental disagreement concerning whether one learns to communicate in a second language by communicating in that language (such as in an immersion experience) or whether one learns to communicate in a second language by learning the lexicogrammar – the words and grammatical structures – of the target language. In other words, the argument has been about two different means of achieving the same end. As with any enduring controversy, the matter is not easily resolved. For one thing, there is evidence to support both points of view. It is not uncommon to find learners who, for whatever reason, find themselves in a new country or a new region of their own country, who need to learn a new language, and learners and who do so without the benefit of formal instruction. If they are post pubescent, they may well retain an accent of some kind, but they can pick up enough language to satisfy their communicative needs. In fact, some are natural acquirers who become highly proficient in this manner. In contrast, there are learners whose entire exposure to the new language comes in the form of classroom instruction in lexicogrammar. Yet they to achieve a measure of communicative



proficiency, and certain of these learners becomes highly proficient as well. What we can infer from this is that humans are amazingly versatile learners and that some people have a natural aptitude for acquiring language and will succeed no matter what the circumstances.

Answer:

A fundamental disagreement, concerning whether one learns to communicate in a second language by an immersion experience or learning the lexicogrammar, is not easily resolved, it is common to find learners in a new country who learn a new language without the benefit of formal instruction, as well as learners whose entire exposure to the new language comes in the form of classroom instruction in lexicogrammar, which means that humans are versatile learners.

5. If your recruiting efforts attract job applicants with too much experience—a near certainty in this weak labor market—you should consider a response that runs counter to most hiring managers' MO: Don't reject those applicants out of hand. Instead, take a closer look. New research shows that overqualified workers tend to perform better than other employees, and they don't quit any sooner. Furthermore, a simple managerial tactic—empowerment—can mitigate any dissatisfaction they may feel. The prejudice against too-good employees is pervasive. Companies tend to prefer an applicant who is a "perfect fit" over someone who brings more intelligence, education, or experience than needed. On the surface, this bias makes sense: Studies have consistently shown that employees who consider themselves overqualified exhibit higher levels of discontent. For example, over-qualification correlated well with job dissatisfaction in a 2008 study of 156 call-center reps by Israeli researchers Saul Fine and Baruch Nevo. And unlike discrimination based on age or gender, declining to hire overqualified workers is perfectly legal. But



even before the economic downturn, a surplus of overqualified candidates was a global problem, particularly in developing economies, where rising education levels are giving workers more skills than are needed to supply the growing service sectors. If managers can get beyond the conventional wisdom, the growing pool of too-good applicants is a great opportunity. Berrin Erdogan and Talya N. Bauer of Portland State University in Oregon found that overqualified workers' feelings of dissatisfaction can be dissipated by giving them autonomy in decision making. At stores where employees didn't feel empowered, "overeducated" workers expressed greater dissatisfaction than their colleagues did and were more likely to state an intention to quit. But that difference vanished where self-reported autonomy was high. Gardeners can feed their families and enrich the soil by growing legumes, such as green beans, soybeans, lentils and peas. Legume roots produce their own nitrogen, which is a major fertilizer nutrient needed by all plants for growth. Nitrogen is produced in nodules that form on the roots of legumes, which contain Rhizobium bacteria. The bacteria take nitrogen from the air and convert it into a form the plants can use. When legumes are pulled up in the fall, excess nitrogen from the nodules is left in the soil. The excess organic nitrogen can be used by other plants the following growing season. It's considered organic nitrogen because it was produced naturally, making green beans or peas great rotational crops in an organic crop production system. Organic growers prefer organic nitrogen because of its natural origins and because it breaks down slowly in the soil, thus slowly feeding plants throughout the growing season. Synthetic nitrogen fertilizers tend to release nitrogen quickly and are harsher on the environment. Synthetic nitrogen fertilizers are generally applied in split applications during the season to mimic the slow release of organic nitrogen sources. Each specific legume generally



requires a specific type of Rhizobium bacteria to produce nodules on their roots. Gardeners who have never grown green beans before can purchase small bags of inoculum or bacteria from most popular vegetable seed catalogs. Before planting beans, open the package and pour in the dust-like bacteria among the seed. Shake the package and then plant. Nodules will form on the roots as they develop. The bacteria will remain in the soil, making it unnecessary to inoculate the seed next year. Do not apply extra nitrogen fertilizer to bean crops. Doing so makes bacteria in the nodules lazy, encouraging them to stop producing their own nitrogen. Legumes that are particularly popular in the home vegetable garden include lima beans, peas, edible soybeans, lentils and fava beans. In a recent survey, 44 percent of gardeners trained through New Mexico State University's Master Gardener Program said they grew green beans and other legumes in their home gardens. When planting, be sure to purchase appropriate strains of Rhizobium bacteria for each type of legume.

Answer:

Gardeners can feed their families and enrich the soil by growing legumes, such as green beans, soybeans, lentils and peas; moreover, nitrogen is produced in nodules that form on the roots of legumes, which contain Rhizobium bacteria, and organic growers prefer organic nitrogen because of its natural origins and because it breaks down slowly in the soil, thus slowly feeding plants throughout the growing season, and lastly, when planting, use appropriate strains of Rhizobium bacteria.

6. We live in an ageing world. While this has been recognized for some time in developed countries, it is only recently that this phenomenon has been fully acknowledged. Global communication is "shrinking" the world, and global ageing is "maturing" it. The increasing presence of older persons in the world is



making people of all ages more aware that we live in a diverse and multigenerational society. It is no longer possible to ignore ageing, regardless of whether one views it positively or negatively. Demographers note that if current trends in ageing continue as predicted, a demographic revolution, wherein the proportions of the young and the old will undergo a historic crossover, will be felt in just three generations. This portrait of change in the world's population parallels the magnitude of the industrial revolution traditionally considered the most significant social and economic breakthrough in the history of humankind since the Neolithic period. It marked the beginning of a sustained movement towards modern economic growth in much the same way that globalization is today marking an unprecedented and sustained movement toward a "global culture". The demographic revolution, it is envisaged, will be at least as powerful. While the future effects are not known, a likely scenario is one where both the challenges as well as the opportunities will emerge from a vessel into which exploration and research, dialogue and debate are poured. Challenges arise as social and economic structures try to adjust to the simultaneous phenomenon of diminishing young cohorts with rising older ones, and opportunities present themselves in the sheer number of older individuals and the vast resources societies stand to gain from their contribution. The Brundtland Report, Our Common Future (1987), defines sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs". Implicit in this definition is the idea that the old pattern of development could not be sustained. Is this true? Development in the past was driven by growth and innovation. It led to new technologies and huge improvements in living standards. To assume that we know what the circumstances or needs of future generations will be is



mistaken and inevitably leads to the debilitating sense that we are living on borrowed time. Only if we assume that society will remain static can we understand the needs of the future. The way we live today could not have been predicted twenty years ago. The sustainability paradigm fails to recognize this. It is a static view and thus places limits on human ingenuity. Similarly, a whole host of false assumptions dominate environmental thought; the scale of problems is exaggerated, the amount of resources is underestimated and spurious links are made between areas such as green policies and profit, poverty and environmental degradation. Those of us who want a better future need to question these assumptions.

Answer:

The Brundtland Report defines sustainable development as the development which meets the needs of the present without compromising the ability of future generations to meet their own needs; moreover, only if we assume that society will remain static can we understand the needs of the future, and the sustainability paradigm is a static view and thus places limits on human ingenuity, and lastly, we need to question spurious links between green policies and profit.

7. On October 12, 1492 (the first day he encountered the native people of the Americas), Columbus wrote in his journal: They should be good servants. I, our Lord being pleased, will take hence, at the time of my departure, six natives for your Highnesses. These captives were later paraded through the streets of Barcelona and Seville when Columbus returned to Spain. From his very first contact with native people, Columbus had their domination in mind. For example, on October 14, 1492, Columbus wrote in his journal, with fifty men they can all be subjugated and made to do what is required of them. These were not mere words: after his second voyage, Columbus sent back a



consignment of natives to be sold as slaves. Yet in an April, 1493, letter to Luis de Santangel (a patron who helped fund the first voyage), Columbus made clear that the people he encountered had done nothing to deserve ill treatment.

Answer:

On October 12, 1492, Columbus wrote in his journal that the native people of the Americas should be good servants; moreover, from his very first contact with native people, Columbus had their domination in mind, and after his second voyage, Columbus sent back a consignment of natives to be sold as slaves, and lastly, in a letter to Luis de Santangel, Columbus made clear that the natives had done nothing to deserve ill treatment.

8. By living in close contact with humans, dogs have developed specific skills that enable them to interact and communicate effectively with people. Recent studies have shown that the canine brain can pick up on emotional cues contained in a person's voice, body odor and posture, and read their faces. In this study, the authors observed what happened when they presented photographs of the same two adults' faces (a man and a woman) to 26 feeding dogs. The images were placed strategically to the sides of the animals' line of sight and the photos showed a human face expressing one of the six basic human emotions: anger, fear, happiness, sadness, surprise, disgust or being neutral. The dogs showed greater response and cardiac activity when shown photographs that expressed arousing emotional states such as anger, fear and happiness. They also took longer to resume feeding after seeing these images. The dogs' increased heart rate indicated that in these cases they experienced higher levels of stress. In addition, dogs turned their heads to the left when they saw human faces expressing anger, fear or happiness. The reverse happened when the faces looked surprised, possibly



because dogs view it as a non-threatening, relaxed expression. These findings, therefore, support the existence of an asymmetrical emotional modulation of dogs' brains to process basic human emotions. Negotiation is a common process in business to mainly solve business conflicts between both parties. Compromise is a basic negotiation state in which both parties give up something that they want in order to get something else they want more. Compromise usually occurs in unfair parties when there is a fixed pie to be divided up, and whatever on one side gets, the other side loses. In compromise situations, neither side gets all of what they really want, but they each make concessions in order to reach an agreement that is acceptable to both. Both parties usually can reach win-win concept through compromise. However, negotiation cannot resolve all the conflict if one party is unwilling to resolve the problem.

Answer:

Negotiation is a common process in business to mainly solve business conflicts between both parties; moreover, a compromise is a basic negotiation state in which both parties give up something that they want in order to get something else they want more, and lastly, a negotiation cannot resolve all the conflict if one party is unwilling to resolve the problem.

9. A leader can define or clarify goals by issuing a memo or an executive order, an edict or a fatwa or a tweet, by passing a law, barking a command, or presenting an interesting idea in a meeting of colleagues. Leaders can mobilize people's energies in ways that range from subtle, quiet persuasion to the coercive threat or the use of deadly force. Sometimes a charismatic leader such as Martin Luther King Jr. can define goals and mobilize energies through rhetoric and the power of example. We can think of leadership as a spectrum, in terms of both visibility and the power the leader wields. On one



end of the spectrum, we have the most visible: authoritative leaders like the president of the United States or the prime minister of the United Kingdom, or a dictator such as Hitler or Qaddafi. At the opposite end of the spectrum is casual, low-key leadership found in countless situations every day around the world, leadership that can make a significant difference to the individuals whose lives are touched by it. Over the centuries, the first kind—the out-in-front, authoritative leadership—has generally been exhibited by men. Some men in positions of great authority, including Nelson Mandela, have chosen a strategy of “leading from behind”; more often, however, top leaders have been quite visible in their exercise of power. Women (as well as some men) have provided casual, low-key leadership behind the scenes. But this pattern has been changing, as more women have taken up opportunities for visible, authoritative leadership. If you are inspired to take concrete action for global peace and development, take a look at the United Nations Volunteers (UNV) program. Every year, up to 8,000 qualified and experienced women and men of some 160 different nationalities volunteer at least six months of their lives to help others. These UN Volunteers work in some 130 countries promoting peace, responding to disasters, empowering communities and helping to build sustainable livelihoods and lasting development. UN Volunteers come from dozens of professional backgrounds but all of them are catalysts of positive change. They are encouraged to be creative and entrepreneurial, and foster volunteerism for peace and development both within and beyond their assignments. They work at the heart of communities in partnership with governments, United Nations entities and civil society. Being a UN Volunteer is not a career (you are currently limited to four years of service), but it is rich with opportunities and experience and offers huge personal rewards. As a UN Volunteer you receive a Volunteer Living Allowance (VLA) which covers basic



needs, housing and utilities. Additionally, UNV will provide a settling-in-grant, life, health, and permanent disability insurance, return airfares and a nominal resettlement allowance.

Answer:

Every year, up to 8,000 qualified and experienced women and men of some 160 different nationalities volunteer to help others at the United Nations Volunteers (UNV) program; moreover, these UN Volunteers work in some 130 countries promoting peace, responding to disasters, empowering communities and helping to build sustainable livelihoods and lasting development, and lastly, being a UN Volunteer is not a career, but it is rich with opportunities and experience and offers huge personal rewards.

10. Negotiation is a common process in business to mainly solve business conflicts between both parties. Compromise is a basic negotiation state in which both parties give up something that they want in order to get something else they want more. Compromise usually occurs in unfair parties when there is a fixed pie to be divided up, and whatever on one side gets, the other side loses. In compromise situations, neither side gets all of what they really want, but they each make concessions in order to reach an agreement that is acceptable to both. Both parties usually can reach win-win concept through compromise. However, negotiation cannot resolve all the conflict if one party is unwilling to resolve the problem.

Answer:

In the process of negotiation, compromise is a basic negotiation state in which both parties give up something and get something else in order to reach an agreement that is acceptable to both, but negotiation cannot resolve all the conflict if one party is unwilling to resolve the problem.



11. Tim Berners-Lee believes the internet can foster human understanding and even world peace. He is the man who has changed the world more than anyone else in the past hundred years. Sir Tim Berners-Lee may be a mild-mannered academic who lives modestly in Boston, but as the inventor of the world wide web he is also a revolutionary. Along with Galileo, William Caxton and Sir Isaac Newton, he is a scientist who has altered the way people think as well as the way they live. Since the web went global 20 years ago, the way we shop, listen to music and communicate has been transformed. There are implications for politics, literature, economics even terrorism because an individual can now have the same access to information as the elite. Society will never be the same. The computer scientist from Oxford, who built his own computer from a television screen and spare parts after he was banned from one of the university computers, is a cultural guru as much as a technological one. It is amazing how far we've come, he says. But you're always wondering what's the next crazy idea, and working to make sure the web stays one web and that the internet stays open. There isn't much time to sit back and reflect. We speak for more than an hour about everything from Facebook to fatwas, Wikipedia to Google. He invented the web, he says, because he was frustrated that he couldn't find all the information he wanted in one place. It was an imaginary concept that he realized.

Answer:

Tim- Berners-Lee, the inventor of the world wide web, is a revolutionary scientist who has altered the way people think as well as the way they live, believing the internet can foster human understanding and even world peace, because an individual now have the same access to information as the elite; there is not much time to sit back and reflect because society will never be the same.



12. With the population growth, the demand for resources has been growing as well. There is an expected increase in demand for various alternative resources, raw materials, timber for paper using, (...energy... materials...). The increase of demand also happens in the non-renewable resource field, such as metal. The demand for petrol, diesel and crude oil is also huge to cope with the demand for manufacturing plastics. People should ensure natural world can still work well to earn the future wellbeing because the world population rises.

Answer:

There is an expected increase in demand for various alternative resources, but people should ensure natural world can still work well to earn the future well-being because the world population rises.

13. Brand loyalty exists when consumers repeat-purchase your brand rather than swapping and switching between brands. It is widely agreed that it is far more expensive to have to find a new customer than to keep existing ones happy, so brand loyalty is crucial for achieving high-profit margins. For charities, it is important to set a marketing objective of improving brand loyalty. If existing donors can be persuaded to set up a direct debit to the charity, its cash flow will improve significantly. Although some brands stay fresh for generations (Marmite is over 100 years old) others become jaded due to changes in consumer tastes and lifestyles. At this point, the firms need to refresh the brand image to keep the products relevant to the target market. A clear objective must be set. For instance: what brand attributes do we want to create? What do we want the brand to stand for? This occurs when a firm aims to a change a brand's image, so that the brand appeals to a new target market. Twelve years into its life cycle, McVitie's decided to reposition its Hobnobs biscuit brand. Hobnobs had been positioned as a homely, quite



healthy biscuit for middle-aged consumers. Research pointed McVitie's in a new direction: younger, more male, and less dull. So new packaging was designed and then launched in conjunction with a new, brighter advertising campaign. In 2013 Hobnobs sales were worth 36 million pounds, 9 percent up on the previous year.

Answer:

14. Brand loyalty exists when consumers repeat-purchase your brand rather than swapping and switching between brands, which is crucial for achieving high-profit margins; although some brands stay fresh for generations, others become jaded due to changes in consumer tastes and lifestyles, so the firms need to refresh the brand image to keep the products relevant to the target market, and a clear objective must be set.
15. When people start thinking about language, the first question which often occurs to them is this: is language natural to humans? - in the same way that grunting is natural to pigs, and barking comes naturally to dogs. Or is it just something we happen to have learned? - in the same way that dogs may learn to beg, or elephants may learn to waltz, or humans may learn to play the guitar. Clearly, in one sense, children 'learn' whatever language they are exposed to, be it Chinese, Nootka or English. So no one would deny that 'learning' is very important. But the crucial question is whether children are born with 'blank sheets' in their head as far as language is concerned - or whether humans are 'programmed' with an outline knowledge of the structure of languages in general. This question of whether language is partly due to nature or wholly due to learning or nurture is often referred to as the nature-nurture controversy, and has been discussed for centuries. For example, it was the topic of one of Plato's dialogues, the Cratylus. Controversies which have been going on for literally ages tend to behave in a characteristic fashion.



They lie dormant for a while, then break out fiercely. This particular issue resurfaced in linguistics in 1959 when the linguist Noam Chomsky wrote a devastating and witty review of Verbal Behavior, a book by the Harvard psychologist B.F. Skinner (Skinner 1957; Chomsky 1959). This book claimed to 'explain' language as a set of habits gradually built up over the years. According to Skinner, no complicated innate or mental mechanisms are needed. All that is necessary is the systematic observation of the events in the external world which prompt the speaker to utter sounds.

Answer:

This question of whether language is partly due to nature or wholly due to learning or nurture is often referred to as the nature-nurture controversy, because this issue resurfaced in linguistics when the linguist Noam Chomsky wrote a devastating and witty review of Verbal Behavior, while Skinner's book claimed to 'explain' language as a set of habits gradually built up over the years.

16. Many technologies have promised these qualities, but few have been commercially viable. What's been lacking is the performance data needed to demonstrate that these technologies are durable, genuinely environmentally beneficial, and suitable to be insured. Over the past 13 years, our Department of Architecture & Civil Engineering has led on research into straw as a low-impact building material. This work, which has included developing a unique straw bale panel as well as scientific monitoring and testing, has now culminated in crucial industry certifications. The BM TRADA's Q-Mark certification guarantees a straw building's energy efficiency, fire safety, durability and weather-resilience and means that developers and homebuyers can now get insurance and mortgages for straw homes and



buildings. The innovative straw walls in the new houses provide two times more insulation than required by current UK building regulations. Based on monitoring a residential straw-bale development in Leeds, fuel bill reductions up to 90% can be expected. The walls have been built using ModCell technology; prefabricated panels consisting of a wooden structural frame infilled with straw bales or hemp and rendered with either a breathable lime-based system or ventilated timber or brick cladding. This technology combines the lowest carbon footprint and the best operational CO² performance of any system of construction currently available. In fact, as an agricultural co-product, straw buildings can be carbon negative as straw absorbs CO² when it grows.

Answer:

Our Department has led research into straw as a low-impact building material and the BM TRADA's Q-Mark certification guarantees a straw building's energy efficiency, fire safety, durability and weather-resilience as the technology combines the lowest carbon footprint and the best operational CO² performance, which enables the innovative straw walls to provide insulation and reduce fuel bills.

17. In such an environment, warfare is no longer purely directed against the military potential of adversarial states. It is rather directed at infiltrating all areas of their societies and to threaten their existences. The comparatively easy access to weapons of mass destruction, in particular relatively and low-cost biological agents, is of key concern. Both governmental and non-governmental actors prefer to use force in a way that can be characterized as "unconventional" or also as "small wars." War waged according to conventions is an interstate phenomenon. The "small war" is the archetype of



war, in which the protagonists acknowledge no rules and permanently try to violate what conventions do exist. The protagonists of the “small war” observe neither international standards nor arms control agreements. They make use of territories where they do not have to fear any sanctions because there is no functioning state to assume charge of such sanctions or because the state in question is too weak to impose such sanctions. This type of war does not provide for any warning time. It challenges not only the external security of the nation states and international community, but also their internal safety.

Answer:

Since warfare is directed at infiltrating all areas of society, the easy access to weapons of mass destruction is of key concern, but both governmental and non-governmental actors prefer to use “small wars” in which the protagonists acknowledge no rules and observe neither international standards nor arms control agreements by making use of territories with no sanctions, which challenges both the external security and the internal safety of the nation states and the international community.

18. Malaysia is one of the most pleasant, hassle-free countries to visit in Southeast Asia. Aside from its gleaming 21st century glass towers, it boasts some of the most superb beaches, mountains and national parks in the region. Malaysia is also launching its biggest-ever tourism campaign in effort to lure 20 million visitors here this year. Any tourist itinerary would have to begin in the capital, Kuala Lumpur, where you will find the Petronas Twin Towers, which once comprised the world tallest buildings and now hold the title of second-tallest. Both the 88-story towers soar 1,480 feet high and are connected by a sky-bridge on the 41st floor. The limestone temple Batu Caves, located 9 miles north of the city, have a 328-foot-high ceiling and feature ornate Hindu shrines, including a 141-foot tall gold-painted statue of a



Hindu deity. To reach the caves, visitors have to climb a steep flight of 272 steps. In Sabah state on Borneo island not to be confused with Indonesia's Borneo you'll find the small mushroom-shaped Sipadan island, off the coast of Sabah, rated as one of the top five diving sites in the world. Sipadan is the only oceanic island in Malaysia, rising from a 2,300-foot abyss in the Celebes Sea. You can also climb Mount Kinabalu, the tallest peak in Southeast Asia, visit the Sepilok Orang Utan Sanctuary, go white-water rafting and catch a glimpse of the bizarre Proboscis monkey, a primate found only in Borneo with a huge pendulous nose, a characteristic pot belly and strange honking sounds. While you're in Malaysia, consider a trip to Malacca. In its heyday, this southern state was a powerful Malay sultanate and a booming trading port in the region. Facing the Straits of Malacca, this historical state is now a place of intriguing Chinese streets, antique shops, old temples and reminders of European colonial powers. Another interesting destination is Penang, known as the Pearl of the Orient. This island off the northwest coast of Malaysia boasts of a rich Chinese cultural heritage, good food and beautiful beaches.

Answer:

While Malaysia is one of the most pleasant countries to visit in Southeast Asia, it is also launching its biggest-ever tourism campaign to lure more visitors this year, and people can visit lots of places, such as the Petronas Twin Tower in Kuala Lumpur, the limestone temple Batu Caves, the Sipadan island in Sabah, the Mount Kinabalu as well as Malacca.

19. According to new research, house mice (*Mus musculus*) are ideal biomarkers of human settlement as they tend to stow away in crates or on ships that end up going where people go. Using mice as a proxy for human movement can add to what is already known through archaeological data and answer important questions in areas where there is a lack of artifacts, Searle said.



Where people go, so do mice, often stowing away in carts of hay or on ships. Despite a natural range of just 100 meters (109 yards) and an evolutionary base near Pakistan, the house mouse has managed to colonize every continent, which makes it a useful tool for researchers like Searle. Previous research conducted by Searle at the University of York supported the theory that Australian mice originated in the British Isles and probably came over with convicts shipped there to colonize the continent in the late 18th and 19th centuries. In the Viking study, he and his fellow researchers in Iceland, Denmark and Sweden took it a step further, using ancient mouse DNA collected from archaeological sites dating from the 10th to 12th centuries, as well as modern mice. He is hoping to do just that in his next project, which involves tracking the migration of mice and other species, including plants, across the Indian Ocean, from South Asia to East Africa.

Answer:

House mice can be used as ideal biomarkers of human settlement to add to what is already known through archaeological data and answer important questions where there is a lack of artifacts, which has been supported by the research conducted by Searle of Australian mice and the DNA matching of ancient mouse and modern mouse in the Viking study.

20. THE BOOKSELLERS OF HOOKHAM AND CARPENTER (hereafter referred to only as Hookham) were located on New Bond Street in London, and their records span the most politically turbulent decade of the eighteenth-century the 1790's. Clients who frequented Hookham were primarily from the aristocratic or gentry classes. In fact, of Hookham's total buyers, 22% were aristocracy, and 35% of the aristocracy purchased novels. We can also confidently assume that untitled female customers were of gentry income because their addresses were primarily in London's fashionable West End. Hookham's



ledgers not only reveal a dramatic increase in the proportion of female purchasers of novels by comparison to earlier studies of provincial women, but they also reveal a remarkable increase in the proportion of female purchases of novels authored by females. Such a marked increase illustrates that Hookhams leisured female customers were able to buy more novels. Furthermore, the fact that these female aristocrats and gentry have accounts under their own name, not their husbands, demonstrates the greater degree of agency and independence that these urban, moneyed women had relative to provincial women. However, because our study does not include an examination of male customers, we are very limited in what claims we can make about whether or not these women behaved according to the cliché that women were the predominant consumers of novels in the eighteenth-century. Moreover, while more disposable income and leisure time certainly accounts for the significant increase in female purchases of novels authored by women in the 1790s, this increase also strongly suggests a desire on the part of women readers to engage in this politically charged decade. Thus, novel-reading provided women readers with the means through which they were able to participate in the male-dominated world of politics. The latter part of our paper will more fully explore this hypothesis in the context of certain recent literary scholars claims that both Gothic and sentimental novels are actively engaged in political debate and discussion.

Answer:

According to the Hookham's found, there is a dramatic increase in the proportion of female purchasers of novels and purchases of novels authored by females, and also, these female aristocrats and gentry have accounts under their own names, and more disposal income and leisure time certainly



account for the significant increase, thus more female were able to participate in the male-dominated world of politics.

21. When an individual drives a car, heats a house, or uses an aerosol hair spray, greenhouse gases are produced. In economic terms, this creates a classic negative externality. Most of the cost (in this case, those arising from global warming) are borne by individuals other than the one making the decision about how many miles to drive or how much hair spray to use. Because the driver (or sprayer) enjoys all the benefits of the activities but suffers only part of the cost, that individual engages in more than the economically efficient amount of the activity. In this sense, the problem of greenhouse gases parallels the problem that occurs when someone smokes a cigarette in an enclosed space or litters the countryside with fast-food wrappers. If we are to get individuals to reduce production of greenhouse gases to the efficient rate, we must somehow induce them to act as though they bear all the costs of their actions. The two most widely accepted means of doing this are government regulation and taxation, both of which have been proposed to deal with greenhouse gases.

Answer:

While an individual's behaviors produced greenhouse gases, he enjoys all the benefits but suffers only part of the costs, so we must induce individuals to act as though they bear all the costs of their actions if we want individuals to reduce production of greenhouse gases to the efficient rate, and the two most widely accepted means to deal with greenhouse gases are government regulations and taxation.

22. American English is, without doubt, the most influential and powerful variety of English in the world today. There are many reasons for this. First, the United



States is, at present, the most powerful nation on earth and such power always brings with it influence. Indeed, the distinction between a dialect and a language has frequently been made by reference to power. As has been said, a language is a dialect with an army. Second, America's political influence is extended through American popular culture, in particular through the international reach of American films (movies, of course) and music. As Kahane has pointed out, the internationally dominant position of a culture results in a forceful expansion of its language... the expansion of language contributes... to the prestige of the culture behind it. Third, the international prominence of American English is closely associated with the extraordinarily quick development of communications technology. Microsoft is owned by an American, Bill Gates. This means a computer's default setting for language is American English, although of course this can be changed to suit one's own circumstances. In short, the increased influence of American English is caused by political power and the resultant diffusion of American culture and media, technological advance, and the rapid development of communications technology.

Answer:

While American English is a dialect with an army because the United States is the most powerful nation on the earth and such power brings with it influence, America's political influence is extended through American popular culture which also results in an expansion of its language, and the international prominence of American English is associated with the quick development of communications technology, which suggests American English is the most influential and powerful variety of English.

23. We live in an ageing world. While this has been recognized for some time in developed countries, it is only recently that this phenomenon has been fully



acknowledged. Global communication is "shrinking" the world, and global ageing is "maturing" it. The increasing presence of older persons in the world is making people of all ages more aware that we live in a diverse and multigenerational society. It is no longer possible to ignore ageing, regardless of whether one views it positively or negatively. Demographers note that if current trends in ageing continue as predicted, a demographic revolution, wherein the proportions of the young and the old will undergo a historic crossover, will be felt in just three generations. This portrait of change in the world's population parallels the magnitude of the industrial revolution traditionally considered the most significant social and economic breakthrough in the history of humankind since the Neolithic period. It marked the beginning of a sustained movement towards modern economic growth in much the same way that globalization is today marking an unprecedented and sustained movement toward a "global culture". The demographic revolution, it is envisaged, will be at least as powerful. While the future effects are not known, a likely scenario is one where both the challenges as well as the opportunities will emerge from a vessel into which exploration and research, dialogue and debate are poured. Challenges arise as social and economic structures try to adjust to the simultaneous phenomenon of diminishing young cohorts with rising older ones, and opportunities present themselves in the sheer number of older individuals and the vast resources societies stand to gain from their contribution.

Answer:

As it is fully acknowledged that we live in an ageing world, a powerful demographic revolution will be a possible result if current trends in ageing continue as predicted, which will not only bring challenges of adjusting social



and economic structures but also opportunities to present themselves in older people and vast resources.

24. In 2005 Japan had the highest median age of all countries in the world, while Australia's population was only moderately aged. Some 50 years ago the demographic situation was quite different, with the median age of Australia's population being seven years older than Japan's. The ageing of the population is a major issue for Australian policy makers, particularly in regard to the long-term implications for reduced economic growth and the increasing demand for Age Pensions, and health and aged care services. As the population ages, growth in the number of people of working age will slow, while the proportion of people of retirement age will increase. Sustained population ageing also leads to slowing or negative population growth. While declining population growth in developed countries is welcomed by some environmentalists and social scientists, economists tend to agree that population decline brings gloomy economic prospects. In addition to the decrease in the labor supply, the demand side of the economy may be affected through shrinking markets for goods and services. How quickly this occurs depends on the dynamics of fertility, mortality and overseas migration. While a moderate pace of demographic change allows for gradual adjustment of the economy and policies to the changing population demographics, rapid changes are more difficult to manage. As a result, governments and society as a whole may need to take actions to address these issues. But how severe is the ageing of Australia's population, relative to other countries? One way of applying a degree of perspective to the ageing debate is to compare ageing in Australia with that of other countries. This article examines the population structures in Australia and Japan and the



demographic forces that shape the respective populations, both historically and projections for the future.

Answer:

While Australia's population was moderately aged, the ageing of the population is still a major issue for Australian policy makers because it not only has long-term implications for reduced economic growth and the increasing demand for Age Pensions and aged care services, but also leads to slowing or negative population growth, so governments and society need to take actions to address these issues together.

25. 11 February 2009 – Major athletic events around the globe – from the 2014 Sochi Olympics to an annual powerboat race in Norwegian fjords – are striving to neutralize their carbon footprint as part of a world-wide climate network, the United Nations Environment Programme (UNEP) said today. The sporting events are the latest participants to join the network, and are particularly important for inspiring further global action on the environment, said Achim Steiner, UNEP Executive Director. "Whether carried out on track and field or on ice and snow, sporting events ignite the spirit of achievement in thousands of competitors and billions of spectators worldwide," Mr. Steiner said. "It is, therefore, heartening that this passion for excellence increasingly encompasses environmental performance, with sporting organizations raising the bar ever higher at each and every tournament," he added. Organizers of the 2014 Sochi Olympic and Paralympic Winter Games – to be held in a unique natural setting between the shores of the Black Sea and the soaring snow-capped Caucasus Mountains – say they will put an estimated \$1.75 billion into energy conservation and renewable energy. That investment will be dedicated to improving transport infrastructure, offsetting greenhouse gas emissions from the use of electricity, air travel and ground transportation, the



reforestation of Sochi National Park and the development of green belts in the city.

Answer:

While major athletic events are striving to neutralize their carbon footprint as part of a world-wide climate network, they are also the latest participants to join the network and are particularly important for inspiring further global action on the environment; organizers will put an estimated \$1.75 billion into energy conservation and renewable energy, which will be dedicated to improving transport infrastructure and offsetting greenhouse gas emissions.

26. The ways of life Upper Paleolithic people are known through the remains of meals scattered around their hearths, together with many tools and weapons and the debris left over from their making. The people were hunter-gathers who lived exclusively from what they could find in nature without practicing either agriculture or herding. They hunted the bigger herbivores, while berries, leaves, roots, wild fruit and mushrooms probably played a major role in their diet. Their hunting was indiscriminate; perhaps because so many animals were about they did not need to spare pregnant females or the young. In the cave of Enlene, for example, many bones of reindeer and bison fetuses were found. Apparently, upper Paleolithic people hunted like other predators and killed the weakest prey first. They did, however, sometimes concentrate on salmon runs and migrating herds of reindeer. Contrary to popular beliefs about cave man, upper Paleolithic people did not live deep inside caves. They rather close the foot of cliffs, especially when an overhang provided good shelter. On the plains and in the valleys, they used tents made from hides of the animals they killed. At time, on the great Russian plains, they built huts with huge boned and tusks collected from skeletons of mammals. Men hunted mostly with



spears, the bow and arrow were probably not invented until the Magdalenian period that came at the end of the Upper Paleolithic.

Answer:

While Upper Paleolithic people were hunter-gathers who lived exclusively from what they could find in nature without practicing either agriculture or herding, they did not live deep inside caves but rather close to the foot of cliffs and hunted with spears, the bow and arrow, which suggest their living ways are known through the remains of meals scattered around their hearths, with many tools and weapons and the debris left over from their making.

27. What makes teaching online unique is that it uses the internet, especially the World Wide Web, as the primary means of communication. Thus, when you teach online, you don't have to be someplace to teach. You don't have to lug your briefcase full of paper or your laptop to a classroom, stand at a lectern, scribble on a chalkboard (or even use your high-tech, interactive classroom "smart" whiteboard), or grade papers in a stuffy room while your students take a test. You don't even have to sit in your office waiting for students to show up for conferences. You can hold "office hours" on weekends or at night after dinner. You can do all this while living in a small town in Wyoming or a big city like Bangkok, even if you are working for a college whose administrative office is located in Florida or Dubai. You can attend an important conference in Hawaii on the same day you teach your class in New Jersey, logging on from your laptop via the local café's wireless hotspot or your hotel room's high-speed network. Or you may simply pull out your smartphone to quickly check on the latest postings, email, or text messages from students. Online learning offers more freedom for students as well. They can search for courses using the Web, scouring their institution or even the world for programs, classes, and instructors that fit their needs. Having found an appropriate course, they can



enroll and register, shop for their books, read articles, listen to lectures, submit their homework assignments, confer with their instructors, and receive their final grades—all online.

Answer:

Because teaching online uses the internet as the primary means of communication, teachers don't have to be someplace to teach and they can hold "office hours" on weekends or at night after dinner; online learning offers more freedom for students as they can search for courses using the Web, scouring their institution or even the world for programs, classes, and instructors that fit their needs.

28. What is museology? A simple definition might be that it is the study of museums, their history and underlying philosophy, the various ways in which they have, in the course of time, been established and developed, their avowed or unspoken aims and policies, their educative or political or social role. More broadly conceived, such a study might also embrace the bewildering variety of audiences visitors, scholars, art lovers, children –at whom the efforts of museum staff are supposedly directed, as well as related topics such as the legal duties and responsibilities placed upon (or incurred by) museums, perhaps even some thought as to their future. Seen in this light, museology might appear at first sight a subject so specialized as to concern only museum professionals, who by virtue of their occupation are more or less obliged to take an interest in it. In reality, since museums are almost, if not quite as old as civilization itself, and since the plethora of present-day museums embraces virtually every field of human endeavor – not just art, or craft, or science, but entertainment, agriculture, rural life, childhood, fisheries, antiquities, automobiles: the list is endless – it is a field of enquiry so broad as to be a matter of concern to almost everybody.



Answer:

Museology, a study of museums, their history and underlying philosophy, not only embraces the bewildering variety of audiences and different topics but also specializes as to concern museum professionals, and it is a field of enquiry so broad as to be a matter of concern to almost everybody since it embraces every field of human endeavor.

29. What is the solution for nations with increasing energy demands, hindered by frequent power cuts and an inability to compete in the international oil market? For East Africa at least, experts think geothermal energy is the answer. More promising still, the Kenyan government and international investors seem to be listening. This is just in time according to many, as claims of an acute energy crisis are afoot due to high oil prices, population spikes and droughts. Geothermal energy works by pumping water into bedrock, where it is heated and returns to the surface as steam which is used directly as a heat source or to drive electricity production. Source: Energy Information Administration, Geothermal Energy in the Western United States and Hawaii. Currently over 60% of Kenya's power comes from hydroelectric sources but these are proving increasingly unreliable as the issue of seasonal variation is intensified by erratic rain patterns. Alternative energy sources are needed; and the leading energy supplier in Kenya, Kenya Electricity Generating Company (KenGen), hopes to expand its geothermal energy supply from 13% to 25 % of its total usage by 2020. The potential of geothermal energy in the region was first realized internationally by the United Nations Development Program, when geologists observed thermal anomalies below the East African Rift system. Locals have been utilizing this resource for centuries; using steam vents to create the perfect humidity for greenhouses, or simply to enjoy a swim in the many natural hot lakes. Along the 6000 km of the rift from the Red



Sea to Mozambique, geochemical, geophysical and heat flow measurements were made to identify areas suitable for geothermal wells. One area lies next to the extinct Olkaria volcano, within the Hell's Gate National Park, and sits over some of the thinnest continental crust on Earth. This is a result of the thinning of the crust by tectonic stretching, causing hotter material below the Earth's surface to rise, resulting in higher temperatures. This thin crust was ideal for the drilling of geothermal wells, reaching depths of around 3000 m, where temperatures get up to 342°C, far higher than the usual temperature of 90°C at this depth. Water in the surrounding rocks is converted to steam by the heat. The steam can be used to drive turbines and produce electricity.

Answer:

With the increasing energy demands in East Africa and the current unreliable energy source, Kenya has already adopted a geothermal energy as an alternative source and hopes to increase its supply in the future, which is mainly generated from the thinnest continental crust on Earth where the water is converted into steam that can be either used as a direct heat source or drive electricity production.

30. A miner in the state of Chiapas found a tiny tree frog that has been preserved in amber for 25 million years, a researcher said. If authenticated, the preserved frog would be the first of its kind found in Mexico, according to David Grimaldi, a biologist and curator at the American Museum of Natural History, who was not involved in the find. The chunk of amber containing the frog, less than half an inch long, was uncovered by a miner in Mexico's southern Chiapas state in 2005 and was bought by a private collector, who loaned it to scientists for study. A few other preserved frogs have been found in chunks of amber – a stone formed by ancient tree sap – mostly in the Dominican Republic. Like those, the frog found in Chiapas appears to be of the genus *Craugastor*,



whose descendants still inhabit the region, said biologist Gerardo Carbot of the Chiapas Natural History and Ecology Institute. Carbot announced the discovery this week. The scientist said the frog lived about 25 million years ago, based on the geological strata where the amber was found. Carbot would like to extract a sample from the frog's remains in hopes of finding DNA that could identify the particular species but doubts the owner would let him drill into the stone.

Answer:

A miner in Mexico found a tiny tree frog preserved in amber for 25 million years, which would be the first of its kind found in Mexico, with a few other preserved frogs found in chunks of amber, and Carbot would like to extract a sample from the frog's remains to find DNA that could identify the particular species but the owner may not allow.

31. Although we tend to think of electric cars as being something completely modern, they were in fact some of the earliest types of motorized vehicle. At the beginning of the twentieth century electric cars were actually more popular than cars with an internal combustion engine as they were more comfortable to ride in. However, as cars fueled by petrol increased in importance, electric cars declined. The situation became such that electric vehicles were only used for certain specific purposes - as fork-lift trucks, ambulances and urban delivery vehicles, for example. Although electricity declined in use in road vehicles, it steadily grew in importance as a means of powering trains. Switzerland, for example, was quick to develop an electrified train system, encouraged in this no doubt by the fact that it had no coal or oil resources of its own. Nowadays there is renewed interest in electricity as a means of powering road vehicles. Why is this the case? Well, undoubtedly economic reasons are of considerable importance. The cost of oil has risen so



sharply that there is a strong financial imperative to look for an alternative. However, there are also environmental motivations. Emissions from cars are blamed in large part for – among other things – the destruction of the ozone layer and the resultant rise in temperatures in the polar regions. A desire not to let things get any worse is also encouraging research into designing effective electric transport.

Answer:

Although electric cars were actually more popular than cars with an internal combustion engine as they were more comfortable to ride in, they declined because cars fuelled by petrol increased in importance, ; however because of economic reasons and environmental motivations, nowadays there is renewed interest in electricity as a means of powering road vehicles.

32. The feature of being “double blind”, where neither patients nor physicians are aware of who receives the experimental treatment, is almost universally trumpeted as being a virtue of clinical trials. Hence, trials that fail to remain successfully double blind are regarded as providing inferior evidential support. The rationale for this view is unobjectionable: double blinding rules out the potential confounding influences of patient and physician beliefs. Nonetheless, viewing double blind trial as necessarily superior is problematic. For one, it leads to the paradox that very effective experimental treatments will not be supportable by best evidence. If a new drug were to make even the most severe symptoms of the common cold disappear within seconds, most participants and investigators would correctly identify it as the latest wonder drug and not the control (i.e. placebo) treatment. Any trial testing the effectiveness of this wonder drug will therefore fail to remain double blind. Similar problems arise for treatments, such as exercise and most surgical techniques, whose nature makes them resistant to being tested in double



blind conditions. It seems strange that an account of evidence should make priori judgments that certain claims can never be supported by 'best evidence'. It would be different if the claims at issue were pseudoscientific – untestable. But so far as treatments with large effects go, the claim that they are effective is highly testable and intuitively they should receive greater support from the evidence than do claims about treatments with moderate effects.

Answer:

While double blind is a virtue of clinical trials because it rules out the potential confounding influences of patients and physician beliefs, viewing double blind trial as necessarily superior is problematic because it leads to the paradox that effective experimental treatments will not be supportable by the best evidence, but claims treatments are effective is highly testable and intuitively they should receive greater support from the evidence than do claims about treatments with moderate effects.

33. The Home Office's periodic British Crime Survey estimates that the true level of crime (the sorts, anyway, which inform the official figures) is about four times that which is registered in the annual statistics. Quite often, especially in the financial services sector, businesses do not report crimes against themselves for fear of lowering their public image. Many citizens today are not insured against car theft or property loss (because they cannot afford the premiums) so they have no incentive to tell the police if they become victims. A steep statistical rise in crime can sometimes arise not from a real growth in a particular type of conduct but from a new policing policy – offences of "lewd dancing" rose by about 300 per cent during 12 months in the 1980s in Manchester, but only because the zealous Chief Constable James Anderton had deployed a great many officers in gay night clubs. Sometimes the



enactment of a new range of offences or the possibility of committing old offences in a new way (like computer offences involving fraud and deception) can cause an upward jolt in crime levels. The figures just released show a startling jump in street robbery but much of this seems to be a very particular crime: the theft of the now ubiquitous mobile phones. Conversely, if crimes like joyriding and some assaults are kept out of the categories measured in the annual statistics, as is the case, the official figures do not reflect even what is reported to the police as criminal. The way that criminal statistics are compiled by the Home Office is also relevant. From April 1998, police forces started to count crime in a way which, according to the government, will give "a more robust statistical measure".

Answer:

There are several reasons that contribute to a rise in crime rate including those businesses do not report crimes against themselves for fear of lowering their public image, that citizens have no incentive to tell police if they become victims, a new policing policy, the enactment of a new range of offenses or the possibility of committing old offenses in a new way, and the way that criminal statistics are compiled by the Home Office.

34. Consider the current situation: like their counterparts in the United States, engineers and technicians in India have the capacity to provide both computer programming and innovative new technologies. Indian programmers and high-tech engineers earn one-quarter of what their counterparts earn in the United States; Consequently, India is able to do both jobs at a lower dollar cost than the United States: India has absolute advantage in both. In other words, it can produce a unit of programming for fewer dollars than the United States, and it can also produce a unit of technology innovation for fewer dollars. Does that mean that the United



States will lose not only programming jobs but innovative technology job, too? Does that mean that our standard of living will fall if the United States and India engage in the international trade? David Ricardo would have answered no to both questions – as we do today. While India may have an absolute advantage in both activities, that fact is irrelevant in determining what India or the United States will produce. India has a comparative advantage in doing programming in part because of such activity requires little physical capital. The flip side is that the United States has a comparative advantage in technology innovation partly because it is relatively easy to obtain capital in this country to undertake such long-run projects. The result is that Indian programmers will do more and more of what U.S. programmers have been doing in the past. In contrast, American firms will shift to more and more innovation.

Answer:

While India might have absolute advantage in providing both computer programming and innovative new technologies because of the low cost, the United States has a comparative advantage in technology innovation because of easier capital obtaining, which suggests that Indian programmers will do more and more of what U.S. programmers have been doing in the past and American firms will shift to more and more innovation.

35. Human remains are a fundamental part of the archaeological record, offering unique insights into the lives of individuals and populations in the past. Recently a new set of challenges to the study of human remains has emerged from a rather unexpected direction: the British government revised its interpretation of nineteenth-century burial legislation in a way that would drastically curtail the ability of archaeologists to study human remains of any age excavated in England and Wales. This paper examines these



extraordinary events and the legal, political and ethical questions that they raise. In April 2008 the British government announced that, henceforth, all human remains archaeologically excavated in England and Wales should be reburied after a two-year period of scientific analysis. Not only would internationally important prehistoric remains have to be returned to the ground, removing them from public view, but also there would no longer be any possibility of long-term scientific investigation as new techniques and methods emerged and developed in the future. Thus, while faunal remains, potsherds, artifacts and environmental samples could be analyzed and re-analyzed in future years, human remains were to be effectively removed from the curation process. Archaeologists and other scientists were also concerned that this might be the first step towards a policy of reburying all human remains held in museum collections in England and Wales including prehistoric, Roman, Saxon, Viking and Medieval as well as more recent remains.

Answer:

While human remains are the fundamental part for analysis and interpretation of any archaeological records, they still need to be reburied after a two-year scientific period because of the appearance and development of new technologies and methods, so human remains should be removed from the curation process with scientists concerned that this might be the first step towards a policy of reburying all human remains.

36. With an abundance of low-priced labor relative to the United States, it is no surprise that China, India and other developing countries specialize in the production of labor intensive products. For similar reasons, the United States will specialize in the production of goods that are human and physical capital intensive because of the relative abundance of a highly educated labour



force and technically sophisticated equipment in the United States. This division of global production should yield higher global output of both types of goods than would be the case if each country attempted to produce both of these goods itself. For example, the United States would produce more expensive labour intensive goods because of its more expensive labor and the developing countries would produce more expensive human and physical capital intensive goods because of their relative scarcity of these inputs. This logic implies that the United States is unlikely to be a significant global competitor in the production green technologies that are not relatively intensive in human and physical capital. Nevertheless, during the early stages of the development of a new technology, the United States has a comparative advantage in the production of the products enabled by this innovation. However, once these technologies become well understood and production processes are designed that can make use of less skilled labor; production will migrate to countries with less expensive labor.

Answer:

While developing countries specialize in labor-intensive production because of the abundance of lowpriced labor, the United States specializes in human and physical capital intensive production because of the abundance of highly educated labor force and technically sophisticated equipment, suggesting the global production should yield higher global output of both types of goods, but once technologies become well understood and production processes are designed, production will migrate to countries with less expensive labor.

37. As warmer winter temperatures become more common, one way for some animals to adjust is to shift their ranges northward. But a new study of 59 North American bird species indicates that doing so is not easy or quick -- it



took about 35 years for many birds to move far enough north for winter temperatures to match where they historically lived. The researchers used 35 years of data from the North American Christmas Bird Count to match winter temperatures to where birds were seen. They tested 59 bird species individually and found that they responded differently to climate change. When summarized across bird species, there was evidence for a strong delay lasting about 35 years. For example, black vultures have spread northward in the last 35 years and now winter as far north as Massachusetts, where the minimum winter temperature is similar to what it was in Maryland in 1975. On the other hand, the endangered red-cockaded woodpecker did not alter its range at all despite the warming trend, possibly because it's very specific habitat requirements precluded a range shift. Both of these scenarios could represent problems for birds, La Sorte said. Species that do not track changes in climate may wind up at the limits of their physiological tolerance, or they may lose important habitat qualities, such as favored food types, as those species pass them by. But they also can't move their ranges too fast if the habitat conditions they depend on also tend to lag behind climate. If warming trends weaken, as they did over the past few years, birds may be able to catch up. But accelerated warming, which is likely as global carbon emissions continue to increase, may put additional strain on birds. The study highlights these challenges and the high potential climate change has for disrupting natural systems. It also underscores the challenges ecologists face in predicting the long-term consequences of climate change for many species simultaneously.

Answer:

As warmer winter temperatures become more common, a new study of 59 bird species found that shifting birds' range northward is not that easy and



quick enough and different species responded differently to climate change, which highlights the challenges and the high potential climate change has for disrupting natural systems.

38. Promoting active lifestyles can help us address some of the important challenges facing the UK today. Increasing physical activity has the potential to improve the physical and mental health of the nation, reduce all-cause mortality and improve life expectancy. It can also save money by significantly easing the burden of chronic disease on the health and social care services. Increasing cycling and walking will reduce transport costs, save money and help the environment. Fewer car journeys can reduce traffic, congestion and pollution, improving the health of communities. Other potential benefits linked to physical activity in children and young people include the acquisition of social skills through active play (leadership, teamwork and co-operation), better concentration in school and displacement of anti-social and criminal behavior. The importance of physical activity for health was identified over 50 years ago. During the 1950s, comparisons of bus drivers with more physically active bus conductors and office-based telephonists with more physically active postmen demonstrated lower rates of coronary heart disease and smaller uniform sizes in the more physically active occupations. This research led the way for further investigation, and evidence now clearly shows the importance of physical activity in preventing ill health. It is important for us to be active throughout our lives. Physical activity is central to a baby's normal growth and development. This continues through school, and into adulthood and older years. Being physically active can bring substantial benefits and there is consistent evidence of a dose-response relationship, i.e., the greater the volume of physical activity undertaken, the greater the health benefits that are obtained.



Answer:

While increasing physical activity has the potential to not only improve the physical and mental health of the nation but also save money, other potential benefits linked to physical activity in children and young people include the acquisition of social skills, better concentration in school and displacement of anti-social and criminal behavior, which suggests that promoting active lifestyles can help us address some of the important challenges facing the UK today.

39. In its periodic quest for culinary identity, Australia automatically looks to its indigenous ingredients, the foods that are native to this country. 'There can be little doubt that using an indigenous product must qualify a dish as Australian notes Stephanie Alexander. Similarly, and without qualification, states that 'A uniquely Australian food culture can only be based upon foods indigenous to this country, although, as Crow remarks, proposing Australian native foods as national symbols relies more upon their association with 'nature' and geographic origin than on common usage. Notwithstanding the lack of justification for the premise that national dishes are, of necessity, founded on ingredients native to the country—after all, Italy's gastronomic identity is tied to the non-indigenous tomato, Thailand's to the non-indigenous chili—the reality is that Australians do not eat indigenous foods in significant quantities. The exceptions are fish, crustaceans and shellfish from oceans, rivers and lakes, most of which are unarguably unique to this country. Despite valiant and well-intentioned efforts today at promoting and encouraging the consumption of native resources, bush foods are not harvested or produced in sufficient quantities for them to be a standard component of Australian diets, nor are they generally accessible. Indigenous foods are less relevant to



Australian identity today than lamb and passionfruit, both initially imported and now naturalized.

Answer:

In its periodic quest for culinary identity, Australia automatically looks to its indigenous ingredients, the foods that are native to this country, notwithstanding the lack of justification for the premise that national dishes are founded on ingredients native to the country and the reality that Australians do not eat indigenous foods in significant quantities, and indigenous foods are less relevant to Australian identity today than lamb and passionfruit, both initially imported and now naturalized.

40. American English is, without doubt, the most influential and powerful variety of English in the world today. There are many reasons for this. First, the United States is, at present, the most powerful nation on earth and such power always brings with it influence. Indeed, the distinction between a dialect and a language has frequently been made by reference to power. As has been said, a language is a dialect with an army. Second, America's political influence is extended through American popular culture, in particular through the international reach of American films (movies, of course) and music. As Kahane has pointed out, the internationally dominant position of a culture results in a forceful expansion of its language... the expansion of language contributes... to the prestige of the culture behind it. Third, the international prominence of American English is closely associated with the extraordinarily quick development of communications technology. Microsoft is owned by an American, Bill Gates. This means a computer's default setting for language is American English, although of course this can be changed to suit one's own circumstances. In short, the increased influence of American English is caused by political power and the resultant diffusion of American culture and media,



technological advance, and the rapid development of communications technology.

Answer:

While American English is a dialect with an army because the United States is the most powerful nation on the earth and such power brings with it influence, America's political influence is extended through American popular culture which also results in an expansion of its language, and the international prominence of American English is associated with the quick development of communications technology, which suggests American English is the most influential and powerful variety of English.

41. It has been more than 100 years since The Women Institute was established, but gender equality has not yet been achieved. Even with the equality law, the gender pay gap still exists and women are still earning much less than men are. Women need to improve themselves, in areas including..... So, there is still a lot more that we need to do, such as STEM. And governments should also take actions.
42. Assessment is a central process in education. If students learned what they were taught, we would never need to assess; we could instead just keep records of what we had taught. But as every teacher knows, many students do not learn what they are taught. Indeed, when we look at their work, it is sometimes hard to believe that they were in the classroom. In fact, it is impossible to predict with any certainty what students will learn as the result of a particular sequence of classroom activities. And because we cannot teach well without finding out where our students are starting from, we have to assess. Even if all our students started out at the same point (a highly unlikely situation!), each of them will have reached different understandings of the material being studied within a very short period of time. That is why



assessment is the bridge between teaching and learning—it is only through assessment that we can find out whether what has happened in the classroom has produced the learning we intended. Of course, assessment is also used for other purposes in education, which makes the picture much more complicated. In all countries, assessments of the performance of individual students are used to determine which students are, and which students are not, qualified for subsequent phases of education, and also to decide which kinds of education students should receive.

Answer:

Assessment is a central process in education and a bridge between teaching and learning as many students do not learn what they are taught because they have reached different understandings of the material being studied, but assessment is also used for other purposes in education such as assessments of the performance of students, and also to decide which kinds of education students should receive.

43. Carbon dioxide, mostly produced by human activities, is the most significant one of greenhouse gases and has caused the rise of the global temperature and the sea level, so businesses should take responsibilities to tackle the problems inherited in the business models, and World Wildlife Fund partners with companies should ensure the sustainability of the entire market.
44. The generalization of the negative image of Africa is unfair because African countries are rich in natural resources and cultural diversity, and hardworking Africans are struggling to address issues of poverty, disease and war, so Africa can be an attractive place for business development and cultural tourism if concerted international support and assistance are provided.
45. The Brundtland Report, Our Common Future (1987), defines sustainable development as "development which meets the needs of the present without



compromising the ability of future generations to meet their own needs'. Implicit in this definition is the idea that the old pattern of development could not be sustained. Is this true? Development in the past was driven by growth and innovation. It led to new technologies and huge improvements in living standards. To assume that we know what the circumstances or needs of future generations will be is mistaken and inevitably leads to the debilitating sense that we are living on borrowed time. Only if we assume that society will remain static can we understand the needs of the future. The way we live today could not have been predicted twenty years ago. The sustainability paradigm fails to recognize this. It is a static view and thus places limits on human ingenuity. Similarly, a whole host of false assumptions dominate environmental thought; the scale of problems is exaggerated, the amount of resources is underestimated and spurious links are made between areas such as green policies and profit, poverty and environmental degradation. Those of us who want a better future need to question these assumptions.

Answer:

Although the implicit of sustainable development is that the old pattern of development which was driven by innovation and led to huge improvements could not be sustained, we assume that society remains static and we can understand the needs of the future, which means that sustainability paradigm fails to recognize that the way we live today couldn't be predicted and placed limits on human ingenuity, so we need to question these assumptions.

46. Ten years ago, Barsky and Purdon (2006) discovered that social networks which are expanding communication through social media are becoming popular and the costs involved are getting further reduced. Yet, library executives did not see how such a phenomenon could become a part of library and information services. They felt that the users should be left to their



social media while the library carried on with its traditional roles (De Rosa et al., 2007). This was also the case when Charnigo and Barnett-Ellis (2007) conducted a survey of 126 academic librarians and concluded that 54% of the librarians surveyed did not believe that there was an academic purpose for Facebook. The rationale behind these librarians' belief was that the social media was a space where students interact with each other, hence, the librarian was not welcome as their coming in might be viewed as an invasion of space. But time has proved that as the technology of the social media became more popular, users and librarians acquired digitally literacy, and libraries, seeing an explosion of social media around it, were forced to reconsider their stance. In a survey involving 497 international librarians, Taylor & Francis (2014) discovered that over 70% of librarians now feel that the use of social media is important. Though the wave began with public libraries (Mon, 2015), today, libraries of every type either have a social media presence or they are seriously considering it. Hence, the use of social media by libraries has become mainstream.

Answer:

Library executives, who did not see how social networks could become a part of library and information services and believe their coming in might be viewed as an invasion of space against students, were forced to reconsider their stance, because time has proved with the technology of the social media becoming more popular, users and librarians acquired digital literacy, and now the use of social media by libraries has become mainstream.

47. Humans love to complain to each other. It helps us feel less alone. Think about what happens when a family member or friend is going through a tough time; they call up someone who will listen to their tale of woe. Unfortunately, negative bonding is the default for many groups. In some families complaining



is the only way to get attention. When one person says, I had a bad day; the other person has to top it. "You think you had a tough day, I had to do three TPS reports!" The same thing happens at work and social settings. "Your child didn't sleep through the night until 6 months? Mine was a full year old before she went over six hours." It's a race to the bottom, the worst situation wins. In *Bitching is Bonding, A Guide to Mutual Complaint*, Irene S. Levine, Ph.D., a professor of psychiatry at the NYU Langone School of Medicine says, "the reason these conversations feel good is because we feel understood." People raised in negative environments learn early on, being positive gets you thrown out of the club. When family dinner is a complaint fest, you're not going to risk alienation saying, "Wow, I had an awesome day, don't you just love life?" Translate this into a work setting, people, often unconsciously, believe being positive keeps you out of the cool club. When negativity provides bonding, humans are reluctant to abandon the behavior that brings them comfort.

Answer:

With complaining to each other helping us feel less alone and understood and in some families being the only way to get attention, negative bonding is the default for many groups, and people believe being positive keeps you out of the cool club and are reluctant to abandon the behavior that brings them comfort.

48. It's very easy to forget about what's in the ground beneath our feet and why it's so important to protect it. One tablespoon of soil contains more organisms than there are people on Earth; billions of bacteria, fungi and other microorganisms combine with minerals, water, air and organic matter to create a living system that supports plants and, in turn, all life. Healthy soil can store as much as 3,750 tons of water per hectare, reducing the risk of flooding, and the International Panel on Climate Change (IPCC) has said that 89% of all



agricultural emissions could be mitigated if we improved the health of our soil. Good soil management also increases disease resistance in livestock and ultimately drives profits for farmers – yet soil and its impact on the health of our animals has, over recent decades, been one of the most neglected links in UK agriculture. Over the last 50 years' agriculture has become increasingly dependent on chemical fertilizers, with applications today around 10 times higher than in the 1950s. Farmers often think the chemical fertilizer NPK (nitrogen, phosphorous and potassium) provides all the nutrition a plant requires, but it also has a detrimental effect on the long-term health of the land: research suggests there are fewer than 100 harvests left in many of the world's soils.

Answer:

Soil, containing so many organisms, combine with minerals, water, air and organic matter to create a living system for all life, which reduces the risk of flooding, mitigates agricultural emissions, increases disease resistance in livestock and ultimately drives profits for farmers, but soil and its impact on the health of our animals has been one of the most neglected links in UK agriculture because they use fertilizers, which has a detrimental effect on the land.

49. The advantages and disadvantages of solar power compared to other forms of renewable energy have been greatly debated. While obviously superior to some forms of energy, solar power's high cost and efficiency dependent on geography have limited its appeal. However, a large number of advantages also merit further development and even possible adaptation for residences. Advantages of Solar Power Solar energy remains popular because it is both a renewable and clean source of energy. These advantages along with the hope that eventually nations can use solar power to decrease global



warming ensure its popularity. Renewable Solar energy is a true renewable resource. All areas of the world have the ability to collect some amount of solar power and solar power is available for collection each day. Clean Solar energy is non-polluting. It does not create greenhouse gases, such as oil-based energy does, nor does it create waste that must be stored, such as nuclear energy. It is also far more quiet to create and harness, drastically reducing the noise pollution required to convert energy to a useful form. Residential size solar energy systems also have very little impact on the surrounding environment, in contrast with other renewable energy sources such as wind and hydroelectric power. Low Maintenance Solar panels have no moving parts and require very little maintenance beyond regular cleaning. Without moving parts to break and replace, after the initial costs of installing the panels, maintenance and repair costs are very reasonable.

Answer:

Despite great debate, solar energy, whose advantages merit further development and possible adaptation for residences, remains popular because it is a true renewable resource which is available for collection in all areas of the world each day and it is non-polluting, creating no greenhouse gases or waste, reducing noise pollution and having very little impact on the surrounding environment, without reasonable maintenance and repair costs.

50. Many insecurities, fears, and doubts stem from lack of understanding or lack of knowledge about something. The more you understand and know about a situation, the more comfortable you will be and thus the less power your shyness will have over you. Let's take for example the subject of public speaking. This is an activity that terrifies most people half to death, but only because most people don't have much knowledge about it. If you do some research and investigation, you'll come to learn that it's perfectly natural to



be terrified of public speaking, and that almost every single person has the same fears and insecurities that you do. When you take it further and ask yourself why you are so terrified of this, you'll come to learn that you are scared of being judged, or of being laughed at. From there, you can go and read and learn about people who are good at public speaking—learn their tips and strategies. This way you are much more prepared because your knowledge on the subject is vast. As a result of this, your confidence will already be much higher than before, which might allow you to attempt public speaking when you join a club like Toastmasters. As you practice more, you will naturally become even more confident. This rule applies to any area where you feel insecure. Read and research as much about the topic as possible. This will help increase your confidence enough to give the activity a try to see if you might be able to become better at it. And that initial confidence to take action is all you need to get the ball rolling and overcome your shyness.

Answer:

Public speaking, an activity that terrifies most people half to death, but only because they do not have much knowledge about it, terrifies you as you are scared of being judged or laughed at, and you can go and read and learn about people good at public speaking, by which you are more prepared with higher confidence allowing you to attempt public speaking.

51. You used to think that being green was a luxury for your company, but climate change has made you realize that you can no longer ignore it. The buzz is about becoming carbon-neutral, but where do you start? Consider your drivers. Do you want to become carbon-neutral for marketing reasons, for financial reasons or to help save the planet? Simon Armitage of the Carbon Neutral Company believes: "Your drivers will help you tailor your carbon-reduction program and determine key performance indicators." This will help



build a case for going carbon-neutral. First, measure your carbon footprint, or get a specialist to do it for you. That primarily means taking account of your energy usage and emissions caused through travel. Before you begin, think about whether you're collecting the right data and whether it's readily accessible. When implementing any energy reduction measures, ensure you engage with your staff. "It's much better if your people decide for themselves when it's sensible for them to travel," says Armitage. You'll also need them to participate in switching off the lights and other energy-saving measures. Set targets and show it's not a one-off exercise.

Answer:

Drivers will help companies tailor their carbon-reduction program and determine key performance indicators to build a case for going carbon-neutral, for which companies not only need to measure their carbon footprint, but also ensure that they engage with their staff when implementing any energy reduction measures; companies will also need them to set targets and show it's not a one-off exercise.

52. Research shows that when people work with a positive mind-set, performance on nearly every level – productivity, creativity, engagement – improves. Yet happiness is perhaps the most misunderstood driver of performance. For one, most people believe that success precedes happiness. "Once I get a promotion, I'll be happy," they think. Or, "Once I hit my sales target, I'll feel great." But because success is a moving target – as soon as you hit your target, you raise it again, the happiness that results from success is fleeting. In fact, it works the other way around: People who cultivate a positive mind-set perform better in the face of challenge. I call this the "happiness advantage" – every business outcome shows improvement when the brain is positive. I've observed this effect in my role as a researcher and



lecturer in 48 countries on the connection between employee happiness and success. And I'm not alone: In a meta-analysis of 225 academic studies, researchers Sonja Lyubomirsky, Laura King, and Ed Diener found strong evidence of directional causality between life satisfaction and successful business outcomes. Another common misconception is that our genetics, our environment, or a combination of the two determines how happy we are. To be sure, both factors have an impact. But one's general sense of well-being is surprisingly malleable. The habits you cultivate, the way you interact with coworkers, how you think about stress – all these can be managed to increase your happiness and your chances of success.

Answer:

People who cultivate a positive mind-set perform better in the face of challenge, which is called "happiness advantage", supported by strong evidence of directional causality between life satisfaction and successful business outcomes, and another common misconception is that our genetics, our environment, or a combination of the two determines how happy we are, despite the fact that one's general sense of well-being is surprisingly malleable.

53. Ethics is a set of moral obligations that define right and wrong in our practices and decisions. Many professions have a formalized system of ethical practices that help guide professionals in the field. For example, doctors commonly take the Hippocratic Oath, which, among other things, states that doctors "do no harm" to their patients. Engineers follow an ethical guide that states that they "hold paramount the safety, health, and welfare of the public." Within these professions, as well as within science, the principles become so ingrained that practitioners rarely have to think about adhering to the ethic – it's part of the way they practice. And a breach of ethics is considered very serious,



punishable at least within the profession (by revocation of a license, for example) and sometimes by the law as well. Scientific ethics calls for honesty and integrity in all stages of scientific practice, from reporting results regardless to properly attributing collaborators. This system of ethics guides the practice of science, from data collection to publication and beyond. As in other professions, the scientific ethic is deeply integrated into the way scientists work, and they are aware that the reliability of their work and scientific knowledge in general depends upon adhering to that ethic. Many of the ethical principles in science relate to the production of unbiased scientific knowledge, which is critical when others try to build upon or extend research findings. The open publication of data, peer review, replication, and collaboration required by the scientific ethic all help to keep science moving forward by validating research findings and confirming or raising questions about results.

Answer:

Within the professions, where many professions have a formalized system of ethical practices, ethical principles become so ingrained that practitioners rarely have to think about adhering to the ethic, a set of moral obligations defining right and wrong, and scientific ethics, deeply integrated into the way scientists work, calls for honesty and integrity in all stages of scientific practice, which guides the practice, with the ethical principles relating to the production of unbiased scientific knowledge.

54. Working nine to five for a single employer bears little resemblance to the way a substantial share of the workforce makes a living today. Millions of people assemble various income streams and work independently, rather than in structured payroll jobs. This is hardly a new phenomenon, yet it has never been well measured in official statistics and the resulting data gaps prevent a



clear view of a large share of labor-market activity. To better understand the independent workforce and what motivates the people who participate in it, the McKinsey Global Institute surveyed some 8,000 respondents across Europe and the United States. We asked about their income in the past 12 months—encompassing primary work, as well as any other income-generating activities, and about their professional satisfaction and aspirations for work in the future. The resulting report, independent work: Choice, necessity, and the gig economy, finds that up to 162 million people in Europe and the United States—or 20 to 30 percent of the working-age population – engage in some form of independent work. While demographically diverse, independent workers largely fit into four segments (exhibit): free agents, who actively choose independent work and derive their primary income from it; casual earners, who use independent work for supplemental income and do so by choice; reluctant, who make their primary living from independent work but would prefer traditional jobs; and the financially strapped, who do supplemental independent work out of necessity.

Answer:

To better understand the independent workforce and what motivates millions of people who assemble various income streams and work independently, researchers surveyed respondents across Europe and the United States, about their income, professional satisfaction and aspirations for work in the future, finding up to 162 million people there engage in some form of independent work, and they largely fit into four segments: free agents, casual earners, reluctant, and the financially strapped.

55. A day would come, Percy Shelley predicted in 1813, when "the monopolizing eater of animal flesh would no longer destroy his constitution by eating an acre at a meal". He explained: "The quantity of nutritious vegetable matter



consumed in fattening the carcass of an ox would afford 10 times the sustenance if gathered immediately from the bosom of the earth." Two hundred years later, mainstream agronomists and dietitians have caught up with the poet. A growing scientific consensus agrees that feeding cereals and beans to animals is an inefficient and extravagant way to produce human food, that there is a limited amount of grazing land, that the world will be hard-pressed to supply a predicted population of 9 billion people with a diet as rich in meat as the industrialized world currently enjoys, and that it's not a very healthy diet anyway. On top of this, livestock contribute significantly towards global warming, generating 14.5% of all manmade greenhouse gas emissions, according to one much-quoted estimate from the United Nations. Now that the problem has been identified, the challenge is to persuade people in wealthy countries to eat less meat. That might seem a tall order, but governments have successfully persuaded people to quit smoking through a combination of public information, regulation and taxation.

Answer:

A scientific consensus agrees feeding cereals and beans to animals is an inefficient and extravagant way to produce human food as a very healthy diet, with a limited amount of grazing land, the world hard-pressed to supply a predicted population of 9 billion with a meat-rich diet, livestock contributing significantly towards global warming, and now the challenge is to persuade people to eat less meat, as governments have persuaded people to quit smoking through taxation.

56. Ecology is the study of interactions of organisms among themselves and with their environment. It seeks to understand patterns in nature (e.g., the spatial and temporal distribution of organisms) and the processes governing those patterns. Climatology is the study of the physical state of the atmosphere –



its instantaneous state or weather, its seasonal-to-interannual variability, its long-term average condition or climate, and how climate changes over time. These two fields of scientific study are distinctly different. Ecology is a discipline within the biological sciences and has as its core the principle of natural selection. Climatology is a discipline within the geophysical sciences based on applied physics and fluid dynamics. Both, however, share a common history. The origin of these sciences is attributed to Aristotle and Theophrastus and their books Meteorological and Enquiry into Plants, respectively, but their modern beginnings trace back to natural history and plant geography. Seventeenth, eighteenth, and nineteenth century naturalists and geographers saw changes in vegetation as they explored new regions and laid the foundation for the development of ecology and climatology as they sought explanations for these geographic patterns. Alexander von Humboldt, in the early 1800s, observed that widely separated regions have structurally and functionally similar vegetation if their climates are similar. Alphonse de Candolle hypothesized that latitudinal zones of tropical, temperate, and arctic vegetation are caused by temperature and in 1874 proposed formal vegetation zones with associated temperature limits.

Answer:

The origin of ecology, the study of interactions of organisms among themselves and with their environment, and climatology, the study of the physical state of the atmosphere, is attributed to Aristotle and Theophrastus, but their modern beginnings trace back to natural history and plant geography, with naturalists and geographers saw changes in vegetation while exploring new regions and laying the foundation for ecology and climatology as they sought explanations for these geographic patterns.



57. Over the years, language teachers have alternated between favoring teaching approaches that focus primarily on language use and those that focus on language forms or analysis. The alternation has been due to a fundamental disagreement concerning whether one learns to communicate in a second language by communicating in that language (such as in an immersion experience) or whether one learns to communicate in a second language by learning the lexicogrammar – the words and grammatical structures – of the target language. In other words, the argument has been about two different means of achieving the same end. As with any enduring controversy, the matter is not easily resolved. For one thing, there is evidence to support both points of view. It is not uncommon to find learners who, for whatever reason, find themselves in a new country or a new region of their own country, who need to learn a new language, and who do so without the benefit of formal instruction. If they are postpubescent, they may well retain an accent of some kind, but they can pick up enough language to satisfy their communicative needs. In fact, some are natural acquirers who become highly proficient in this manner. In contrast, there are learners whose entire exposure to the new language comes in the form of classroom instruction in lexicogrammar. Yet they too achieve a measure of communicative proficiency, and certain of these learners become highly proficient as well. What we can infer from this is that humans are amazingly versatile learners and that some people have a natural aptitude for acquiring languages and will succeed no matter what the circumstances.

Answer:

A fundamental disagreement, concerning whether one learns to communicate in a second language by an immersion experience or learning the lexicogrammar, is not easily resolved, as it is common to find learners in a new



country who learn a new language without the benefit of formal instruction, as well as learners whose entire exposure to the new language comes in the form of classroom instruction in lexicogrammar, which means that humans are versatile learners.

58. Current research into the nature of the relationship between participation in physical activity/sport and educational performance has produced mixed, inconsistent and often non-comparable results. For example, some cross-sectional studies illustrate a positive correlation between participation in sport and physical activity and academic success (e.g., math's, reading, acuity, reaction times). However, critics point to a general failure to solve the issue of direction of cause – whether intelligence leads to success in sport, whether involvement in sport enhances academic performance, or whether a third factor (e.g. personality traits) explains both. Longitudinal studies also generally support the suggestion that academic performance is enhanced, or at least maintained, by increased habitual physical activity. Yet such studies are criticized for not being definitive because some do not use randomized allocation of pupils to experimental and control groups (to control for pre-existing differences), others tend to use (subjective) teacher-assigned grades to assess academic achievement, rather than standardized and comparable tests; and some programmers include parallel interventions, making it difficult to isolate specific effects. More generically, one key piece of research illustrates that both acute exercise and chronic training programmers have small, but beneficial, positive impacts on cognitive performance. However, this study concludes that as experimental rigor decreased, effect size increased. Further, generalization is limited because effect size is influenced by the nature and type of exercise, the type of participants, the nature of the cognitive tests and the methodological quality of the study.



Answer:

Current research into the nature of the relationship between participation in physical activity/sport and educational performance has produced mixed, inconsistent, and often non-comparable results, including conclusions that academic performance is enhanced or at least maintained, by increased habitual physical activity and that both acute exercise and chronic training programs have small, but beneficial, positive impacts on cognitive performance.

59. An international team of scientists is set to go to Arctic to investigate the Greenland shark longevity mystery. The shark is known to be the longest living vertebrate animal on the planet Earth. One of the members is Dr. Holy Shiels, a physiologist and senior lecturer in the Faculty of Life Sciences at the University of Manchester. She will be the only British scientist in the team to study Greenland shark, which is believed to be the vertebrate animals and mammals with the longest living. The shark is reported to have lived for more than 200 years, and possibly close to or more than 400 years. The shark is both hunter and a scavenger, that feed on seals and other animals including polar bears and whales. It is also known as one of the largest sharks, reaching to five and a half meters (18 feet), very close to the size of a great white. The research team is commissioned by the Greenland government and will conduct the research on board the multi-purpose research vessel Sanna, operated by the Greenland Institute of Natural Resources. A Greenland shark is estimated to be able to live for 400 years according to Science Magazine. Professor Shiels expects to gather sufficient data of Greenland shark, a top predator in the Arctic Sea. She wanted to find a clue of how Greenland shark is able to survive in the deep sea of the Arctic Sea, by examining how its heart and circulation work in its normal habitat, as she specializes in the



cardiovascular function. "Greenland sharks are classified as data deficient," Shiels said. "This means that we don't know enough to put measures in place to protect them from over-fishing, pollution or climate change."

Answer:

Greenland sharks, which are believed to be the vertebrate animals and mammals with the longest living and one of the largest sharks, are classified as data deficient, which means that people don't know enough to protect them from over-fishing, pollution or climate change, so an international team of scientists is set to go to Arctic to investigate the Greenland shark longevity mystery.

60. **Skipping Breakfast Has Drawbacks** - It's no mystery why so many people routinely skip breakfast: bad timing. It comes at a time when folks can be more occupied with matters of grooming, attire and otherwise making themselves presentable for a new day. However, studies conducted both in the United States and internationally have shown that skipping breakfast can affect learning, memory and physical well-being. Students who skip breakfast are not as efficient at selecting critical information for problem-solving as their peers who have had breakfast. For school children, skipping breakfast diminishes the ability to recall and use newly acquired information, verbal fluency, and control of attention, according to Ernesto Pollitt, a UC Davis professor of pediatrics whose research focuses on the influence of breakfast on mental and physical performance. Skipping breakfast can impair thinking in adults, also. For both children and adults, a simple bowl of cereal with milk goes a long way toward providing a sufficiently nutritious start to the day. Green-Bergeson recommends choosing a cereal that's low in sugar – less than five grams per serving – and using nonfat or one percent milk. Frederick Hirshberg, a pediatrician at UC Davis Medical Group, Carmichael, says that



babies and other preschoolers rarely skip breakfast because they're usually the hungriest at the beginning of the day. Breakfast then becomes more of a "learned experience" than a response to a biological need, Hirshberg says.

Answer:

Skipping breakfast has drawbacks for both children and adults, for whom a simple bowl of cereal milk can provide a nutritious start to the day, but babies and other preschoolers rarely skip breakfast because they are usually the hungriest at the beginning of the day, so breakfast then becomes more of a "learned experience" than a response to a biological need.

61. After the 1905 flying season, the Wrights contacted the United States War Department, as well as governments and individuals in England, France, Germany, and Russia, offering to sell a flying machine. They were turned down time and time again -- government bureaucrats thought they were crackpots; others thought that if two bicycle mechanics could build a successful airplane, they could do it themselves. But the Wright persisted, and in late 1907, the U.S. Army Signal Corps asked for an aircraft. Just a few months later, in early 1908, a French syndicate of businessmen agreed to purchase another. Both the U.S. Army and the French asked for an airplane capable of carrying a passenger. The Wright brothers hastily adapted their 1905 Flyer with two seats and a more powerful engine. They tested these modifications in secret, back at Kitty Hawk, North Carolina for the first time in several years. Then the brothers parted temporarily **Answer:** Wilbur to France and Orville to Virginia. In 1908 and 1909, Wilbur demonstrated Wright aircraft in Europe, and Orville flew in Fort Meyer, Virginia. The flights went well until Orville lost a propeller and crashed, breaking his leg and killing his passenger Lt. Thomas Selfridge. While Orville recuperated, Wilbur kept flying in France, breaking record after record. Orville and his sister Kate eventually joined



Wilbur in France, and the three returned home to Dayton to an elaborate homecoming celebration. Together, Orville and Wilbur returned to Fort Meyer with a new Military Flyer and completed the U.S. Army trials. A few months later, Wilbur flew before over a million spectators in New York Harbor -- his first public flight in his native land. All of these flights stunned and captivated the world. The Wright Brothers became the first great celebrities of the twentieth century.

Answer:

Although the Wrights were turned down time and time again to sell a flying machine because government bureaucrats thought they were crackpots, they persisted before the U.S. Army Signal Corps asked for an aircraft, and they hastily adapted their 1905 Flyer with two seats and a more powerful engine, demonstrating Wright aircraft, which makes the Wright Brothers became the first great celebrities of the twentieth century.

62. Slightly less than one in five careers (19%) were primary careers (475,000 people). That is, they were the main career of a person who was limited in carrying out the core everyday activities of mobility, communication or self-care. Both primary careers and the larger group of other careers (close to 2 million) contribute to the wellbeing of older people and people with disabilities. However, because they care for people who otherwise would have difficulty carrying out basic everyday activities, there is particular interest in primary careers: in the contribution they make, their wellbeing, labour force experiences, motivations and the support they receive in caring. Primary careers were more likely than other careers to be assisting someone who lived in the same household (81% compared with 76%). As with caring as a whole, the likelihood of being a primary career increased with age to peak at age 55-64 years, where one in twenty people were primary careers. However,



rather than then declining, the likelihood of being a primary career remained at around this level among the older age groups. Consequently, primary careers had a somewhat older age profile than other careers. The median age of primary careers was 52 years, compared with 47 years for other careers. Primary careers were more likely than other careers to be female (71% compared with 50%) and less likely to be in the labor force (39% compared with 60%). Women not in the labour force were by far the largest single group among primary careers (44%). In contrast, men employed full-time were the largest single group among other careers (25%). Consistent with their lower labour force participation, primary careers had lower personal incomes than other careers (a median gross income of \$237 per week compared with \$327 per week) and were more likely to have a government pension or allowance as their main source of income (55% compared with 35%).

Answer:

While primary careers, the main career of a person who would otherwise have difficulty carrying out basic everyday activities, have a somehow older age profile, they are more likely to be a female who is not in the labour force, and they have lower personal incomes than other careers.

63. THE BOOKSELLERS OF HOOKHAM AND CARPENTER (hereafter referred to only as Hookham) were located on New Bond Street in London, and their records span the most politically turbulent decade of the eighteenth-century the 1790's. Clients who frequented Hookham were primarily from the aristocratic or gentry classes. In fact, of Hookham's total buyers, 22% were aristocracy, and 35% of the aristocracy purchased novels. We can also confidently assume that untitled female customers were of gentry income because their addresses were primarily in London's fashionable West End. Hookham's ledgers not only reveal a dramatic increase in the proportion of female



purchasers of novels by comparison to earlier studies of provincial women, but they also reveal a remarkable increase in the proportion of female purchases of novels authored by females. Such a marked increase illustrates that Hookhams leisured female customers were able to buy more novels. Furthermore, the fact that these female aristocrats and gentry have accounts under their own name, not their husbands, demonstrates the greater degree of agency and independence that these urban, moneyed women had relative to provincial women. However, because our study does not include an examination of male customers, we are very limited in what claims we can make about whether or not these women behaved according to the cliché that women were the predominant consumers of novels in the eighteenth-century. Moreover, while more disposable income and leisure time certainly accounts for the significant increase in female purchases of novels authored by women in the 1790s, this increase also strongly suggests a desire on the part of women readers to engage in this politically charged decade. Thus, novel-reading provided women readers with the means through which they were able to participate in the male-dominated world of politics. The latter part of our paper will more fully explore this hypothesis in the context of certain recent literary scholars' claims that both Gothic and sentimental novels are actively engaged in political debate and discussion.

Answer:

According to the Hookhams found, there is a dramatic increase in the proportion of female purchasers of novels and purchases of novels authored by females, and also, these female aristocrats and gentry have accounts under their own names, and more disposal income and leisure time certainly account for the significant increase, thus more female were able to participate in the male-dominated world of politics.



64. A miner in the state of Chiapas found a tiny tree frog that has been preserved in amber for 25 million years, a researcher said. If authenticated, the preserved frog would be the first of its kind found in Mexico, according to David Grimaldi, a biologist and curator at the American Museum of Natural History, who was not involved in the find. The chunk of amber containing the frog, less than half an inch long, was uncovered by a miner in Mexico's southern Chiapas state in 2005 and was bought by a private collector, who loaned it to scientists for study. A few other preserved frogs have been found in chunks of amber – a stone formed by ancient tree sap – mostly in the Dominican Republic. Like those, the frog found in Chiapas appears to be of the genus *Craugastor*, whose descendants still inhabit the region, said biologist Gerardo Carbot of the Chiapas Natural History and Ecology Institute. Carbot announced the discovery this week. The scientist said the frog lived about 25 million years ago, based on the geological strata where the amber was found. Carbot would like to extract a sample from the frog's remains in hopes of finding DNA that could identify the particular species but doubts the owner would let him drill into the stone.

Answer:

A miner in Mexico found a tiny tree frog preserved in amber for 25 million years, which would be the first of its kind found in Mexico, with a few other preserved frogs found in chunks of amber, and Carbot would like to extract a sample from the frog's remains to find DNA that could identify the particular species but the owner may not allow.

65. Many people who have written on the subject of allowances say it is not a good idea to pay your child for work around the home. These jobs are a normal part of family life. Paying children to do extra work around the house, however, can be useful. It can even provide an understanding of how a



business works. Allowances give children a chance to experience the things they can do with money. They can share it in the form of gifts or giving to a good cause. They can spend it by buying things they want. Or they can save and maybe even invest it. Saving helps children understand that costly goals require sacrifice: you have to cut costs and plan for the future. Requiring children to save part of their allowance can also open the door to future saving and investing. Many banks offer services to help children and teenagers learn about personal finance. A savings account is an excellent way to learn about the power of compound interest. Compounding works by paying interest on interest. So, for example, one dollar invested at two percent interest for two years will earn two cents in the first year. The second year, the money will earn two percent of one dollar and two cents, and so on. That may not seem like a lot. But over time it adds up.

Answer:

Although many people say it is not a good idea to pay your child for work around the home, it can provide an understanding of how a business works and give them a chance to experience the things they can do with money because children can spend the money or understand saving and investing, so that they can learn about the power of compound interest.

66. As economic troubles stop flare up around the globe, the earning estimates of American firms who do business abroad begin to flatten. Without these international consumers to buy their products, there are fewer sales, which means that inventories pile up. When there is more supply than demand, prices go down. Lower prices would normally cause demand to pick up, but in an uncertain economy people tend to postpone purchases. We see this tendency in the American economy with computer products where consumers believe that the prices will go down if they wait another six months, so they



decide to hold off. This tendency causes further gluts in the market, which eventually leads manufacturers to slow production. They lay off workers, causing domestic consumption to fall further since there is less money to buy goods. These effects ripples throughout the economy and create a deflationary spiral that can lead to a recession or even a depression.

Answer:

Fewer sales, which means that inventories pile up and there is more supply than demand, lead to prices going down, which normally cause demand to pick up, and people to tend to postpone purchases, and further gluts in the market, which eventually lead manufacturers to slow production, and cause domestic consumption to fall further since there is less money to buy goods.

67. A farming technique practiced for centuries by villagers in West Africa, which converts nutrient-poor rainforest soil into fertile farmland, could be the answer to mitigating climate change and revolutionizing farming across Africa. A global study by researchers has for the first-time identified and analyzed rich fertile soils found in Liberia and Ghana. They discovered that the ancient West African method of adding charcoal and kitchen waste to highly weathered, nutrient poor tropical soils can transform the land into enduringly fertile, carbon-rich black soils which the researchers dub 'African Dark Earths'. Similar soils created by Amazonian people in pre-Columbian eras have recently been discovered in South America – but the techniques people used to create these soils are unknown. Moreover, the activities which led to the creation of these anthropogenic soils were largely disrupted after the European conquest. Encouragingly researchers in the West Africa study were able to live within communities as they created their fertile soils. This enabled them to learn the techniques used by the women from the indigenous communities



who disposed of ash, bones and other organic waste to create the African Dark Earths.

Answer:

As a farming technique in West Africa can convert nutrient-poor rainforest soil into fertile farmland, researchers discovered enduringly fertile, carbon-rich black soils named 'African Dark Earths', and similar soils in pre-Columbian eras have also been discovered although the techniques are unknown, so researchers in the West Africa study were able to live within communities as they created their fertile soils, which could be the answer to mitigating climate change and revolutionizing farming across Africa.

68. To understand the final reason why the news marketplace of ideas dominated by television is so different from the one that emerged in the world dominated by the printing press, it is important to distinguish the quality of vividness experienced by television viewers from the "vividness" experienced by readers. I believe that the vividness experienced in the reading of words is automatically modulated by the constant activation of the reasoning centers of the brain that are used in the process of concreting the representation of reality the author has intended. By contrast, the visceral vividness portrayed on television has the capacity to trigger instinctual responses similar to those triggered by reality itself—and without being modulated by logic, reason, and reflective thought. The simulation of reality accomplished in the television medium is so astonishingly vivid and compelling compared with the representations of reality conveyed by printed words that it signifies much more than an incremental change in the way people consume information. Books also convey compelling and vivid representations of reality, of course. But the reader actively participates in the conjuring of the reality the book's author is attempting to depict. Moreover, the parts of the human brain that



are central to the reasoning process are continually activated by the very act of reading printed words: Words are composed of abstract symbols—letters—that have no intrinsic meaning themselves until they are strung together into recognizable sequences.

Answer:

The news marketplace of ideas dominated by television is so different from the one that emerged in the world dominated by the printing press, because the quality of vividness experienced by television viewers is different from that by readers, and the simulation of reality accomplished in the television medium is much more compelling and vivid compared with the representation of reality conveyed by printed words.

69. Until the early 1960s, newspapers published separate job listing for men and women. It wasn't until the passage of the Equal Pay Act on June 10, 1963 that it became illegal to pay women lower rates for the same job strictly on the basis of their sex. The wage gap is a statistical indicator often used as an index of the status of women's earnings relative to men's. It is expressed as a percentage (e.g., in 2005, women earned 81% as much as men) and is calculated by dividing the median annual earnings for women by median annual earnings for men. Since 1963, when the Equal Pay Act was signed, the closing of the wage gap between men and women has been at a rate of about half a penny a year.

Answer:

Until the early 1960s, newspapers published separate job listing for men and women, and the wage gap, whose closing has been at a rate of about half a penny a year since 1963, when the Equal Pay Act was signed, is a statistical indicator often used as an index of the status of women's earnings relative to men's.



70. In a study in the current issue of the journal PLOS One, a team of scientists in Germany showed experts and novices simple geometric objects and simple chess positions and asked the subjects to identify them. Reaction times were measured and brain activity was monitored using functional M.R.I. scans. On the identification of the geometric objects, the subjects performed the same, showing that the chess experts had no special visualization skills. When the subjects were shown the chess positions, the experts identified them faster. Focusing on an element of an earlier study on pattern and object recognition by chess experts, the researchers had expected to see parts of the left hemispheres of the experts' brains – which are involved in object recognition – react more quickly than those of the novices when they performed the chess tasks. But the reaction times were the same. What set the experts apart was that parts of their right brain hemispheres – which are more involved in pattern recognition – also lit up with activity. The experts were processing the information in two places at once. The researchers also found that when the subjects were shown the chess diagrams, the novices looked directly at the pieces to recognize them, while the experts looked on the middle of the boards and took everything in with their peripheral vision.

Answer:

The chess experts had no special visualization skills on the identification of the geometric objects, while the subjects were shown the chess positions, the experts identified them faster, and parts of the left hemispheres of the experts' brains react the same as those of the novices when they performed the chess tasks, with their right brain hemispheres also lighting up with activity, suggesting the experts were processing the information in two places at once.



71. Most of the time when I embark on such an investigation, it quickly becomes clear that matters are much more complicated and ambiguous several shades grayer than I thought going in. Not this time. The deeper I delved into the confused and confusing thicket of nutritional science, sorting through the long-running fats versus carb wars, the fiber skirmishes and the raging dietary supplement debates, the simpler the picture gradually became. I learned that in fact, science knows a lot less about nutrition than you would expect – that in fact, nutrition science is, to put it charitably, a very young science. It's still trying to figure out exactly what happens in your body when you sip a soda, or what is going on deep in the soul of a carrot to make it so good for you, or why in the world you have so many neurons – brain cells! – in your stomach, of all places. It's a fascinating subject, and someday the field may produce definitive answers to the nutritional questions that concern us, but – as nutritionists themselves will tell you – they're not there yet. Not even close. Nutrition science, which after all only got started less than two hundred years ago, is today approximately where surgery was in the year 1650 – very promising, and very interesting to watch, but are you ready to let them operate on you? I think I'll wait a while.

Answer:

Nutrition science is a very young science, and someday the field may produce definitive answers to the nutritional questions that concern us, but it knows a lot less about nutrition than you would expect because it only got started less than two hundred years ago and is today approximately where surgery was in the year 1650.

72. One of Guinness World Records' more unusual awards was presented at the National Maritime Museum yesterday. After a 100-day trial, the timepiece known as Clock B – which had been sealed in a clear plastic box to prevent



tampering – was officially declared, by Guinness, to be the world's "most accurate mechanical clock with a pendulum swinging in free air". It was an intriguing enough award. But what is really astonishing is that the clock was designed more than 250 years ago by a man who was derided at the time for Lian incoherence and absurdity that was little short of the symptoms of insanity", and whose plans for the clock lay ignored for two centuries. The derision was poured on John Harrison, the British clockmaker whose marine chronometers had revolutionized seafaring in the 18th century (and who was the subject of Longitude by Diva Sobel). His subsequent claim – that he would go on to make a pendulum timepiece that was accurate to within a second over a 100- day period – triggered widespread ridicule. The task was simply impossible, it was declared. But now the last laugh lies with Harrison. At a conference, Harrison Decoded: Towards a Perfect Pendulum Clock, held at Greenwich yesterday, observatory scientists revealed that a clock that had been built to the clockmaker's exact specifications had run for 100 days during official tests and had lost only five eighths of a second in that period.

Answer:

John Harrison, the British clockmaker claimed that he would go on to make a pendulum timepiece that was accurate to within a second over a 100-day period, which triggered widespread ridicule, but now the last laugh lies with Harrison as Clock B, which was designed more than 250 years ago, and was officially declared, by Guinness, to be the world's "most accurate mechanical clock with a pendulum swinging in free air".

73. It's important to realize that the brain doesn't see the world around it simply as though the scene was projected onto a cinema screen on the inside of your skull. Before a scene can be observed "in your head" it has to be broken down into a number of different components for processing, and these



components then have to be recombined into the meaningful form that we call "an image". Amongst other things, the scene is broken down into its different colors – red, green and blue – in a way that's analogous to the manner in which a television image or magazine photograph is broken down into tiny dots of primary colors (which are too small to be noticed individually when we look at them, but which when seen collectively give the impression of a continuous full color image). However, unlike and magazine images, the image that we see with our eyes is broken down not only into separate color components but into other components too. It is, rather incredibly, deconstructed into component parts such as horizontal lines, vertical lines, circles and so on. Each of these component parts is sent to a separate area of the brain for processing, with the different components of the scene only merging again when they are unified into what you perceive as the image.

Answer:

The brain doesn't see the world simply as though the scene was projected onto a cinema screen because the image that we see with our eyes is broken down into separate color components and other components; each of these component parts is sent to a separate area of the brain for processing, with the different components of the scene only merging again when they are unified into what you perceive as the image.

74. With a good system of crop rotation, and especially with the addition of any sort of fertilizer you may be able to come up with, it's possible to grow crops on a plot of land for upwards of 2 – 3 years at a time with good results. Ultimately, though, you must let the land rest if you hope to continue farming there in the long-run. Allowing a plot of land to rest for a period of time is known as letting the field go fallow, and there are several reasons for this. Allowing a field or plot to lie fallow means that you don't grow anything new



on it, don't harvest anything and don't graze any animals on the land for at least a year. Sometimes a field will lay fallow for two, three or even four years, but the traditional standard on many farms was to let a field lie fallow once every 2 - 3 years. This fallow period allows the land to replenish many of its nutrients. The root networks of various grasses or groundcovers (like clover) have a chance to expand and grow, which further strengthens the soil and protects it from erosion. During the fallow period, there are many beneficial flora and micro-fauna, including cyanobacteria, which live in the soil. These microorganisms continue to be active at the root level, steadily improving the quality of the soil so that when you come back in a year or two, you can begin planting food or cash crops anew.

Answer:

The reasons why you must let the land rest if you hope to continue farming there in the long-run, which is letting the field go fallow are that this allows the land to replenish many of its nutrients, the root networks of various grasses or ground covers have a chance to expand and grow, and there are many beneficial flora and micro-fauna.

75. The 1920's movie goers experience was largely dominated by silent movies but saw the introduction of synchronized sound. In the 1920's movie stars were really stars - with huge salaries, the fashions and activities of the Hollywood greats echoed around the world and 100,000 people would gather in cities all over the world, including such diverse cities as London and Moscow, to greet Mary Pickford and Douglas Fairbanks when they toured of Europe. Early silent movies were often accompanied by live piano or organ music and provided enormous entertainment value to audiences captivated by the experience of watching moving pictures on the silver screen. Although there had been previous attempts to introduce sound, it wasn't until 1923 that a synchronized



sound track was photographically recorded and printed on to the side of the strip of motion picture film and made it on to a commercially distributed movie. It would still be seven long years before taking pictures gained total supremacy and finally replaced the silent film era. The first movie theatres were called Nickelodeons, and were very basic compared the luxurious picture palaces that followed but what an aura of excitement, of laughter, fun and tears surrounded them! Before the introduction of movie soundtracks, movies were often accompanied by scripted music from a piano.

Answer:

With early silent movies often accompanied by live piano or organ music audiences captivated by the experience of watching moving pictures on the silver screen, and it wasn't until 1923 that a synchronized sound track was photographically recorded and printed on to the side of the strip of motion picture film and made it on to a commercially distributed movie, and the first movie theatres were called Nickelodeons.

76. Brand loyalty exists when consumers repeat-purchase your brand rather than swapping and switching between brands. It is widely agreed that it is far more expensive to have to find a new customer than to keep existing ones happy, so brand loyalty is crucial for achieving high-profit margins. For charities, it is important to set a marketing objective of improving brand loyalty. If existing donors can be persuaded to set up a direct debit to the charity, its cash flow will improve significantly. Although some brands stay fresh for generations (Marmite is over 100 years old) others become jaded due to changes in consumer tastes and lifestyles. At this point, the firms need to refresh the brand image to keep the products relevant to the target market. A clear objective must be set. For instance: what brand attributes do we want to create? What do we want the brand to stand for? This occurs when a firm



aims to a change a brand's image, so that the brand appeals to a new target market. Twelve years into its life cycle, McVie's decided to reposition its Hobnobs biscuit brand. Hobnobs had been positioned as a homely, quite healthy biscuit for middle-aged consumers. Research pointed McVie's in a new direction: younger, more male, and less dull. So new packaging was designed and then launched in conjunction with a new, brighter advertising campaign. In 2013 Hobnobs sales were worth 36 million pounds, 9 percent up on the previous year.

Answer:

Brand loyalty exists when consumers repeat-purchase your brand rather than swapping and switching between brands, which is crucial for achieving high-profit margins; although some brands stay fresh for generations. Others become jaded due to changes in consumer taster and lifestyles, so firms need to refresh the brand image to keep the products relevant to the target market, and a clear objective must be set.

77. Broadly speaking, there are two different ways of thinking about modern art, or two different versions of the story. One way is to view art as something that can be practiced (And though of) as an activity radically separate from everyday life or worldly concerns. From this point of view, art is said to be "autonomous" from society – that is, it is believed to be self-sustaining and self-referring. One particularly influential versions of this story suggest that modern art should be viewed as process by which features extraneous to a particular branch of art would be progressively eliminated, and painters or sculptors would come to concentrate on problems specific to their domain. Another way of thinking about modern art is to view it as responding to the modern world, and to see modern artists immersing themselves in the conflicts and challenges of society. That is to say, some modern artists sought ways of



conveying the changing experiences generated in Europe by the twin processes of commercialization (the commodification of everyday life) and Urbanization. From this point of view, modern art is a way of reflecting on the transformation that created what we call, in a sort of shorthand, "modernity".

Answer:

Here are two different ways of thinking about modern art, and the first one is that art can be practiced as an activity radically apart from everyday life or worldly concerns, while the other one is that modern art is response of the modern world, and the response of modern artists immersing themselves in conflicts or challenges, which reflects and transforms 'modernity'.

78. Life expectancies have been rising by up to three months a year since 1840, and there is no sign of that flattening. Lynda Grattan and Andrew Scott draw on a 2009 study to show that if the trend continues, more than half the babies born in wealthier countries since 2000 may reach their 100th birthdays. With a few simple, devastating strokes, Grattan and Scott show that under the current system it is almost certain you won't be able to save enough to fund several decades of decent retirement. For example, if your life expectancy is 100, you want a pension that is 50 percent of your final salary, and you save 10 percent of your earnings each year, they calculate that you won't be able to retire till your 80s. People with 100-year life expectancies must recognize they are in for the long haul, and make an early start arranging their lives accordingly. But how to go about this? Grattan and Scott advance the idea of a multistage life, with repeated changes of direction and attention. Material and intangible assets will need upkeep, renewal or replacement. Skills will need updating, augmenting or discarding, as will networks of friends and acquaintances. Earning will be interspersed with learning or self-reflection. As the authors warn, recreation will have to become re-creation.



Answer:

Since life expediencies have been rising since 1840, it is almost certain you won't be able to save enough to fund several decades of decent retirement, so two researchers advance the idea of a multistage life with repeated changes of direction and attention, of which aspects include material and intangible assets, skills, networks of friends and acquaintances, and earning, and recreation will have to become re-creation.

79. As an art, architecture is essentially abstract and nonrepresentational and involves the manipulation of the relationships of spaces, volumes, planes, masses, and voids. Time is also an important factor in architecture, since a building is usually comprehended in a succession of experiences rather than all at once. In most architecture there is no one vantage point from which the whole structure can be understood. The use of light and shadow, as well as surface decoration, can greatly enhance a structure. The analysis of building types provides an insight into past cultures and eras. Behind each of the greater styles lies not a casual trend nor a vogue, but a period of serious and urgent experimentation directed toward answering the needs of a specific way of life. Climate, methods of labor, available materials, and economy of means all impose their dictates. Each of the greater styles has been aided by the discovery of new construction methods. Once developed, a method survives tenaciously, giving way only when social changes or new building techniques have reduced it. That evolutionary process is exemplified by the history of modern architecture, which developed from the first uses of structural iron and steel in the mid-19th cent.

Answer:

As an art, architecture is essentially abstract and nonrepresentational and involves the manipulation of the relationships of factors, since a building is



usually comprehended in a succession of experiences rather than all at one; the analysis of building types provides an insight into past cultures and eras, and each of the greater styles has been aided by the discovery of new construction methods, which means evolutionary process is exemplified by the history of modern architecture.

80. A country's standard of living generally depends on the size of its national income. Standards of living are measured by such things as the number of cars, televisions, telephones, computers, washing machines, and so on, for every one thousand people. There is, however, no standard international index, which is why national income figures are used as a substitute. But the use of these figures to compare the standard of living between countries needs to be done carefully, because they are, at best, only a rough guide which can be misleading. The main problem here is that it is necessary to have a common unit of measurement if any sort of comparison is to be made at all. It has become the custom to use the dollar, and each country's currency is converted at its official exchange rate into a national income figure in dollars. Now, since the exchange rate is often set at an artificial level in relation to dollars, you are likely to end up with a figure that is useless for your purposes.

Answer:

Despite a country's standard of living measured by the number of cars, televisions, telephones, computers, washing machines, there is no international standard index, but the use of these figures needs to be done carefully, because they are only misleading guide, with the main problem here that it is necessary to have a common unit of measurement, usually the dollar, but you are likely to end up with a figure that is useless for your purposes.



81. If it seems like you're not getting enough sleep, you're not alone. People have evolved to sleep much less than chimps, baboons or any other primates studied so far, a new study finds. Charles Nunn and David Samson are evolutionary anthropologists. They study how humans have evolved to behave the way we do. Nunn works at Duke University in Durham, N.C. Samson works at the University of Toronto Mississauga in Canada. In their new study, the two compared sleep patterns in 30 different species of primates, including humans. Most species slept between nine and 15 hours daily. Humans averaged just seven hours of shut-eye. Based on lifestyle and biological factors, however, people should get 9.55 hours, Nunn and Samson calculate. Most other primates in the study typically sleep as much as the scientists predicted they should. Nunn and Samson shared their findings online February 14 in the American Journal of Physical Anthropology. The researchers argue that two long-standing features of human life may play into our short sleep times. The first stems from when humans' ancestors descended from the trees to sleep on the ground. At that point, people probably had to spend more time awake to guard against predators. The second may reflect the intense pressure humans face to learn and teach new skills and to make social connections. That has left less time for sleep. As sleep declined, rapid-eye movement – or REM – sleep took on an outsize role in humans, Nunn and Samson propose. REM sleep is when we dream. And it has been linked to learning and memory. "It's pretty surprising that non-REM sleep time is so low in humans," Nunn says. "But something had to give as we slept less."

Answer:

People have evolved to sleep much less because humans' ancestors descended from the trees to sleep on the ground, having to spend more time awake to guard against predators, and another feature may reflect intense



pressure humans face to learn and teach new skills and to make social connections; as sleep declined, rapid-eye movement took on an outside role, but REM has been linked to learning and memory.

82. What Makes It Muggy? Like the heat index, muggy is a "feels-like" condition, except it has to do more with how "breathable" the air feels than how hot it feels. The muggier the weather, the less chance you'll feel cool because of decreased evaporation rates, which is why the following weather conditions are notoriously linked to the muggiest of days and nights: Warm air temperatures, generally of 70°F or above (the warmer the air, the more moisture it's able to hold); High moisture (the more moisture there is in the air, the "heavier" it feels); and Low winds (the less wind there is, the fewer air molecules there are passing over your skin evaporating and cooling you off). Since mugginess expresses how moist the air feels, you might think that relative humidity would be a good indicator of how muggy it feels outside. However, dewpoint temperature is actually a better measure of mugginess. Why? Dewpoint not only gives you an indication of how moist air is, but how warm it is as well (since dew point temperature can go as high as, but never higher than the actual air temperature). So if the dew point is high, it means both air moisture and temperature probably are, too.

Answer:

Muggy is a "feels-like" condition, because the muggier the weather, the less chance you'll feel cool due to decreased evaporation rates; dewpoint temperature is a better measure of mugginess, as dewpoint not only indicate how moist air is, but how warm it is as well, which means when the dew point is high, both air moisture and temperature probably are, too.

83. It was once assumed that all living things could be divided into two fundamental and exhaustive categories. Multicellular plants and animals, as



well as many unicellular organisms, are eukaryotic— their large, complex cells have a well-formed nucleus and many organelles. On the other hand, the true bacteria are prokaryotic cells, which are simple and lack a nucleus. The distinction between eukaryotes and bacteria, initially defined in terms of subcellular structures visible with a microscope, was ultimately carried to the molecular level. Here prokaryotic and eukaryotic cells have many features in common. For instance, they translate genetic information into proteins according to the same type of genetic coding. But even where the molecular processes are the same, the details in the two forms are different and characteristic of the respective forms. For example, the amino acid sequences of various enzymes tend to be typically prokaryotic or eukaryotic. The differences between the groups and the similarities within each group made it seem certain to most biologists that the tree of life had only two stems. Moreover, arguments pointing out the extent of both structural and functional differences between eukaryotes and true bacteria convinced many biologists that the precursors of the eukaryotes must have diverged from the common ancestor before the bacteria arose. Although much of this picture has been sustained by more recent research, it seems fundamentally wrong in one respect. Among the bacteria, there are organisms that are significantly different both from the cells of eukaryotes and from the true bacteria, and it now appears that there are three stems in the tree of life. New techniques for determining the molecular sequence of the RNA of organisms have produced evolutionary information about the degree to which organisms are related, the time since they diverged from a common ancestor, and the reconstruction of ancestral versions of genes. These techniques have strongly suggested that although the true bacteria indeed form a large coherent group, certain other bacteria, the archaebacteria, which are also prokaryotes and which



resemble true bacteria, represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria.

Answer:

Multicellular plants and animals are eukaryotic, but the true bacteria are prokaryotic cells; while prokaryotic and eukaryotic cells have many features in common, the details in the two forms are different, and the precursors of the eukaryotes must have diverged from the common ancestor before the bacteria arose as techniques have strongly suggested that the archaeobacteria represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria.

84. What do great managers actually do? In my research, beginning with a survey of 80,000 managers conducted by the Gallup Organization and continuing during the past two years with in-depth studies of a few top performers, I've found that while there are as many styles of management as there are managers, there is one quality that sets truly great managers apart from the rest: They discover what is unique about each person and then capitalize on it. Average managers play checkers, while great managers play chess. The difference? In checkers, all the pieces are uniform and move in the same way; they are interchangeable. You need to plan and coordinate their movements, certainly, but they all move at the same pace, on parallel paths. In chess, each type of piece moves in a different way, and you can't play if you don't know how each piece moves. More important, you won't win if you don't think carefully about how you move the pieces. Great managers know and value the unique abilities and even the eccentricities of their employees, and they learn how best to integrate them into a coordinated plan of attack. This is the exact opposite of what great leaders do. Great leaders discover what is universal and capitalize on it. Their job is to rally people toward a



better future. Leaders can succeed in this only when they can cut through differences of race, sex, age, nationality, and personality and, using stories and celebrating heroes, tap into those very few needs we all share. The job of a manager, meanwhile, is to turn one person's particular talent into performance. Managers will succeed only when they can identify and deploy the differences among people, challenging each employee to excel in his or her own way. This doesn't mean a leader can't be a manager or vice versa. But to excel at one or both, you must be aware of the very different skills each role requires.

Answer:

In my research, I've found that great managers discover what is unique about each person and then capitalize on it; great managers know and value the unique abilities of their employees, and they learn how best to integrate them into a coordinated plan of attack, while great leaders discover what is universal and capitalize on it, which means that you must be aware of the very different skills each role requires.

85. The area that is now South Africa has been inhabited by humans for millennia. The San, the original inhabitants of this land, were migratory people who lived in small groups of about 15 to 20 people. They survived by fishing and hunting and by gathering roots and other wild foods. They did not build permanent dwellings but used rock shelters as temporary dwellings. Around 2,000 years ago Khoikhoi pastoralists migrated to the coast. In the eastern part of present-day South Africa, iron-working societies date from about 300 AD. The Sotho-Tswana and Nguni peoples arrived in this region around 1,200 AD. They lived by agriculture and stock farming, mined gold, copper and tin and hunted for ivory and built stone-walled towns. Over the centuries, these societies had diverse contacts with the Khoisan. Strife between the San and the Khoikhoi



developed over competition for game; eventually the Khoikhoi became dominant. These peoples lived in the western part of present-day South Africa and are known collectively as the Khoisan.

Answer:

The area that is now South Africa has been inhabited by humans for millennia, as the San, the original inhabitants of this land, were migratory people and around 2,000 years ago Khoikhoi pastoralists migrated to the coast; the Sotho-Tswana and Nguni people arrived in this region around 1,200 AD, but eventually the Khoikhoi became dominant, and these people lived in the western part of present-day South Africa and are known as the Khoisan.

86. Americans in the mid-nineteenth century could point to plenty of examples, real as well as mythical, of self-made men who by dint of "industry, prudence, perseverance, and good economy" had risen "to competence, and then to affluence." With the election of Abraham Lincoln, they could point to one who had risen from a log cabin to the White House. "I am not ashamed to confess that twenty-five years ago I was a hired laborer, mauling rails, at work on a flat-boat—just what might happen to any poor man's son!" Lincoln told an audience at New Haven in 1860. But in the free states a man knows that "he can better his condition there is no such thing as a freeman being fatally fixed for life, in the condition of a hired laborer." "Wage slave" was a contradiction in terms, said Lincoln. "The man who labored for another last year, this year labors for himself, and next year he will hire others to labor for him." If a man "continue through life in the condition of the hired laborer, it is not the fault of the system, but because of either a dependent nature which prefers it, or improvidence, folly, or singular misfortune." The "free labor system," concluded Lincoln, "opens the way for all—gives hope to all, and energy, and progress, and improvement of condition to all."



Answer:

Americans in the mid-nineteenth century could point to plenty of examples, and in the free states a man knows that he can better his condition, but wage slave was a contradiction in terms; if a man continues through life in the condition of the hired laborer, it is not the fault of the system, but due to a dependent nature, so Lincoln concluded that the free labor system opens the way for all.

87. As a family therapist, I often have the impulse to tell families to go home and have dinner together rather than spending an hour with me. And 20 years of research in North America, Europe and Australia back up my enthusiasm for family dinners. It turns out that sitting down for a nightly meal is great for the brain, the body and the spirit. And that nightly dinner doesn't have to be a gourmet meal that took three hours to cook, nor does it need to be made with organic arugula and heirloom parsnips. For starters, researchers found that for young children, dinnertime conversation boosts vocabulary even more than being read aloud to. The researchers counted the number of rare words – those not found on a list of 3,000 most common words – that the families used during dinner conversation. Young kids learned 1,000 rare words at the dinner table, compared to only 143 from parents reading storybooks aloud. Kids who have a large vocabulary read earlier and more easily. Older children also reap intellectual benefits from family dinners. For school-age youngsters, regular mealtime is an even more powerful predictor of high achievement scores than time spent in school, doing homework, playing sports or doing art. Other researchers reported a consistent association between family dinner frequency and teen academic performance. Adolescents who ate family meals 5 to 7 times a week were twice as likely to get as in school as those who ate dinner with their families fewer than two times a week.



Answer:

Sitting down for a nightly meal is great for the brain, the body and the spirit, because dinnertime conversation boosts vocabulary even more than being read aloud to, and kids who have a large vocabulary read earlier and more easily; older children also reap intellectual benefits from family dinners, and other researchers reported a consistent association between family dinner frequency and teen academic performance.

88. Delivering packages with drones will scale back CO2 emissions inbound circumstances as compared to truck deliveries, a brand-new study from University of Washington transportation engineers finds. In a paper to be revealed in associate degree coming issue of Transportation analysis half D, researchers found that drones tend to own CO2 emissions blessings over trucks once the drones haven't got to fly terribly way to their destinations or once a delivery route has few recipients. Trucks – which may provide environmental edges by carrying everything from garments to appliances to the article of furniture in a very single trip – become a lot of climate-friendly various once a delivery route has several stops or is farther off from a central warehouse. For small, light-weight packages – a bottle of drugs or a kid's bathing costume – drones contend particularly well. However, the carbon edges erode because the weight of a package increase since these unmanned aerial vehicles have to be compelled to use extra energy to remain aloft with a significant load.

Answer:

Delivering packages with drones will scale back CO2 emissions if the drones haven't got to fly terribly way to their destinations, while the carbon edges erode because the weight of a package increase, but trucks become a lot of climate-friendly various once a delivery route has several stops.



89. By 1984, the internet had grown to include 1,000 host computers. The National Science Foundation was one of the first outside institutions hoping to connect to this body of information. Other government, non-profit, and educational institutions followed. Initial attempts to catalogue this rapidly expanding system of networks were simple. Among the first was Archie, a list of FTP information created by Peter Deutsch at McGill University in Montreal. However, the greatest innovation in the Internet was still to come, brewing in an MIT laboratory in Cambridge, Mass. The World Wide Web, or the Web, is often confused with the Internet. In fact, it is just one part of the Internet, along with email, video conferencing, and streaming audio channels. In 1989, Tim Berners-Lee, now a scientist at the Massachusetts Institute of Technology, introduced a new system of communication on the Internet which used hyperlinks and a user-friendly graphical interface. His slice of the Internet pie came to be known as the World Wide Web. Berners-Lee says, "The Web is an abstract (imaginary) space of information. On the Net, you find computers – on the Web, you find documents, sounds, videos, ...information. On the Net, the connections are cables between computers; on the web, connections are hypertext links. The Web exists because of programs which communicate between computers on the Net. The Web could not be without the Net. The Web made the Net useful because people are really interested in information (not to mention knowledge and wisdom!) and don't really want to know about computers and cables."

Answer:

In 1989, Tim Berners-Lee introduced a new system of communication on the Internet, and his slice of the Internet pie came to be known as the World Wide Web, and it is the greatest innovation in the Internet, and the Web is an



abstract space of information, and the Web made the Net useful because people are really interested in information.

90. According to Dr. Ron Fessenden, M.D., M.P.H. the average American consumes more than 150 pounds of refined sugar, plus an additional 62 pounds of high fructose corn syrup every year. In comparison, we consume only around 1.3 pounds of honey per year on average in the U.S. According to new research, if you can switch out your intake of refined sugar and use pure raw honey instead, the health benefits can be enormous. What is raw honey? It's a pure, unfiltered and unpasteurized sweetener made by bees from the nectar of flowers. Most of the honey consumed today is processed honey that's been heated and filtered since it was gathered from the hive. Unlike processed honey, raw honey does not get robbed of its incredible nutritional value and health powers. It can help with everything from low energy to sleep problems to seasonal allergies. Switching to raw honey may even help weight-loss efforts when compared to diets containing sugar or high fructose corn syrup. I'm excited to tell you more about one of my all-time favorite natural sweeteners today.

Answer:

According to new research, if you can switch out your intake of defined sugar and use pure raw honey instead, the health benefits can be enormous, and unlike processed honey, raw honey is a pure, unfiltered, and unpasteurized sweetener made by bees and does not get robbed of its incredible nutritional value and health power, which can help with low energy, sleep problems, seasonal allergies, and even weight-loss.

91. Let us begin by asking why the conviction that our language is decaying is so much more widespread than the belief that it is progressing, in an intellectual climate where the notion of the survival of the fittest is at least as strong as



the belief in inevitable decay, it is strange that so many people are convinced of the decline in the quality of English, a language which is now spoken by an estimated half billion people – a possible hundredfold increase in the number of speakers during the past millennium. One's first reaction is to wonder whether the members of the anti-slovenliness brigade, as we may call them, are subconsciously reacting to the fast-moving world we live in, and consequently resenting change in any area of life. To some extent this is likely to be true. A feeling that 'fings ain't wot they used to be' and an attempt to preserve life unchanged seem to be natural reactions to insecurity, symptoms of growing old. Every generation inevitably believes that the clothes, manners and speech of the following one have deteriorated. We would therefore expect to find a respect for conservative language in every century and every culture and, in literate societies, a reverence for the language of the 'best authors' of the past.

Answer:

While English is widely spoken in the world, it is strange that so many people are convinced of the decline in the quality of English, and the reason may be that the members of the anti-slovenliness brigade are subconsciously reacting to the fast-moving world and consequently resenting change in any area of life because every generation inevitably believes that things in the following generation have deteriorated.

92. In order to have a competitive edge, athletes often use drugs with high athletic performance. The National Honey Board recently found that honey has the same functions but less negative impact. This clinical trial is the third in a series of studies focusing on the use of honey by athletes. The first study (involving 71 subject) determined that honey has a milder effect on blood sugar than other popular forms of carbohydrate gel. The second study in the



series (with 39 weights trained subjects) investigated the combination of honey with a protein supplement and suggested that honey speeds muscle recovery after a workout.

Answer:

Honey, with the same functions as drugs used by athletes for high athletic performance and less negative impact, has a milder effect on blood sugar than other popular forms of carbohydrate gel, and speeds muscle recovery after a workout.





Write Essay

1. Some people argue that science is more important than arts. What is your opinion?
2. Some universities deduct students' work if assignment is given late. What is your opinion and suggest some alternative actions?
3. There are both problems and benefits for high school students study plays and works of theatres written centuries ago. Discuss and use your own experience.
4. Many people choose to immigrate to other countries. What are the advantages and disadvantages of living in a foreign country? Discuss with your own experience.
5. A healthy diet is more important for keeping fit than exercise. To what extent do you believe with this statement? Give example or personal experiences.
6. Students can obtain information of academic subject from online, the printed books and articles, and discussion with their teachers and their peers. Which one is the most reliable source?
7. The medical technology is responsible for increasing the average life expectancy. Do you think it is a curse or a blessing?
8. Advertising may make people buy something they don't need or cannot afford, but also, they can convey information to increase their life quality. What is your opinion?
9. Should parents be held legally responsible for the actions of their children? Do you believe with this opinion? Support your position with your own study, experience or observations.



10. How does the design of building affect, either positively or negatively, where people work and live?
11. Some people think schools should group students according to their academic abilities while others think students can achieve better performance in mixed groups. Discuss both opinions and give your own opinion.
12. As national services, which one deserve to receive more financial support, education or health?
13. In the past 100 years, there have been many inventions such as antibiotics, airplanes and computers. What do you think is the most important of them? Why?
14. Some universities deduct marks from students' works if they are given in late. What is your opinion and suggest some alternative actions?
15. Medical technology will extend human's life expectancy. Do you think it is a blessing or a curse?
16. Some countries have free health services. However, some people claim that those who live unhealthy lives should not receive free health services. Do you agree or disagree with this statement?
17. Do you agree that privatization of public sector undertakings is beneficial to society?
18. Many believe that many kinds of media simultaneously communicating to people help people get correct information. Do you agree with it?
19. People dispute travel is or is not a component of a quality education. Some believe travel is overrated. What is your opinion?
20. Television serves many functions. It helps people to relax. We can learn from TV programs. Besides, TV can also be seen as a companion for lonely people. To what extent do you agree with this? Explain it with your own experience.



21. In our technological world, the number of new inventions has been increasing. Please describe a new invention, and determine whether it will bring advantages or disadvantages.
22. Nowadays, more and more people engage in dangerous activities, such as skydiving, skiing and motorcycling. Are you in favor of such activities or not? Use examples to support your opinion.
23. It is argued that getting married before finishing school or getting a job is foolish. To what extent do you agree or disagree?
24. Some people think human behaviors can be limited by laws; others think laws have little effect. What is your opinion?
25. Some employers involve employees in the decision-making process of products and services. What are the advantages and disadvantages of such policy?
26. The formal written examination can be a valid method to assess students learning. To what extent do you agree or disagree?
27. It is often argued that studying overseas is overrated. There are many scholars who study locally. Is travel a necessary component of quality education?
28. There is no value to travel overseas for study, as you can be a good scholar even without leaving your home base. It is or isn't necessary to travel overseas for a better education?
29. Is travel an important component for a successful scholar? Some people think scholars should read books and never need to leave their home. To which extend do you agree? Explain why.
30. The disadvantages of tourism in less developed countries are as great as the advantages. What is your opinion?



31. In your opinion, what are the advantages and disadvantages of extreme or adventure sports?
32. The information revolution by modern mass communication has both positive and negative consequences for individuals and for society. To what extent do you agree? Explain with your own experience.
33. Mass media, including TV and newspaper, have a great influence on humans, particularly on the younger generation. It has a pivotal role in shaping people's opinions. Discuss the extent you agree or disagree. Use your own experience or examples.
34. Climate change is a concerning global issue. Who should take the responsibilities, governments, big companies, or individuals?
35. In the past years, there have been many inventions, such as antibiotics, airplanes, and computers. What do you think is the most important of them? Why?
36. Should marketing in companies produce consumer goods like food and clothing, place emphasis on reputation of the company or short-term strategies like discount and special offers? Why?
37. Advanced technology such as artificial intelligence can translate a foreign language easily. Do you think learning a foreign language is still necessary? Support your point of view with your own experience
38. While artificial intelligence becomes so advanced, people can use computers to translate foreign languages. Do you agree with it? Use examples or your own experiences
39. Some people point that experiential learning (i.e., learning by doing it) can work well in formal education. However, others think a traditional form of teaching is the best. Do you think experiential learning can work well in high schools or colleges?



40. Parents should be held legally responsible for their children's acts. What is your opinion? Support it with personal examples.
41. Nowadays, it is increasingly more difficult to maintain the right balance between work and other aspects of one's life, such as leisure time with family members. How important do you think is this balance? Why do people find it hard to achieve?
42. Nowadays television has become an essential part of life. It is a medium for disseminating news and information, and for some it acts as a companion. What is your opinion about this?
43. Should there be a wage cap for highly-paid people? Is it good or bad?
44. It is harder for children living in the 21st century than that in the past. How far do you agree with this statement? Give your opinions.
45. It is argued that getting married before finishing school or getting a job is not a good choice. To what extent do you agree or disagree?
46. Information revolution brought about by modern mass media has both positive and negative consequences to individuals and society. To what extent do you agree with this statement? Discuss and use your own experience.
47. Medical technology can increase life expectancy. Is it a blessing or curse?
48. In a cashless society, people use more credit cards. Cashless society seems to be a reality, and how realistic do you think it might be? What are the advantages and disadvantages of this phenomenon?
49. You are given climate as the field of study. Which area would you prefer? Explain why you picked this up the particular area of your study?
50. Business whether big or small is to maximize profit. Do you agree with that? Give your opinion.



51. What is the role of writing theater plays and discussing ancient writings in the study of high school students?
52. There are both advantage and disadvantage of company workers accessing their own products and services. Discuss.
53. The world's governments and organizations are facing a lot of issues. Which do you think is the most pressing problem for the inhabitants on our planet and give the solution?
54. The time people devote in job leaves very little time for personal life. How widespread is the problem? What problem will this shortage of time cause?
55. Television services many functions. Watching TV makes us relax. We can learn knowledge and information from TV programs. Besides, TV can also be seen as a companion. To what extent do you agree with this?
56. There are many people who are defined by the place where they grow up. Please think of a celebrity you know who becomes famous because of his/her hometown or the place where he/she grows up. Give examples of how his/her accomplishment is influenced by the place where he/she grows up.
57. There are many people who are defined by the place where they grow up. Please think of a celebrity you know who becomes famous because of his/her hometown or the place where he/she grows up. Give examples of how his/her accomplishment is influenced by the place where he/she grows up.
58. More and more women are raising a family with a career. Please give your suggestions on a personal level and national level.
59. Unemployment among young people is a serious problem. Some people suggest shorter working weeks instead of laying off employees. What do you think are the advantages and disadvantages? Is it also applicable to adults?
60. Should schools have strict rules on wearing uniforms?
61. Should celebrities give up the right to privacy?



62. In the future, people will work fewer hours at their jobs. To what extent do you agree with it? Please support your opinion with your own experience.
63. Should schools make learning a foreign language compulsory?
64. Nowadays, more and more people believed that overburden can help complete higher quality in achievements. For example, professional teachers, coaches believe that this applies to students and athletes, on the individual and national level. What is your point of view? Give examples to support it.
65. Advanced technology such as artificial intelligence can translate a foreign language easily. Do you think learning a foreign language is still necessary? Support with your own experience.
66. Television has many functions to play in everyone's life. For some it's relaxation; for some, it is the companion. To what extent do you think the statement is true? Please provide your argument and supporting evidence from your own experience.
67. Living in the countryside or having a city life, which one do you prefer? Please use examples or your personal experience to support your opinion.
68. Do you agree that taking part in sports is important for an adult's health and happiness? Discuss.
69. Do you think students who had gone to universities and paid full fees should earn higher salaries when compared to those who did not go to university at all?
70. People attend college or university for many different reasons (for example, new experiences, career preparation, or to increase knowledge). Which according to you is the foremost factor? Discuss this by giving specific reasons & examples.



71. Some languages are become more popular in some countries, while the use of others is rapidly declining. Do you think this is a positive development or a negative one?
72. To what extent do you agree with the statement that schools should prepare students for university rather than for work.
73. There are both problems and benefits for high school students to study plays and works of theatres written centuries ago. Discuss and use your own experience.
74. Tourism is good for some less developed countries, but also has some disadvantages. Discuss.
75. With the increase of digital information available online, the role of the library has become obsolete. Universities should only procure digital materials rather than constantly textbooks. Discuss both the advantages and disadvantages of this position and give your own point of view.
76. In a cashless society, people use more credit cards instead of cash. Cashless society seems to be a reality. How realistic do you think it might be? What are the benefits and problems of this phenomenon?
77. Global problems are related to governments and international organizations. What are the problems and what is your opinion?
78. Experience is the best teacher. Some people think that life experience is more important than the Experience is the best teacher. Some people think that life experience is more important than the
79. Effective study requires time, comfort and peace. Study and employment distract one from another. So, it is impossible to combine study and employment. To what extent do you think the statements are realistic? Support your opinion with examples.



80. There are many global problems. What is the most pressing problem? What solutions would you suggest?
81. It is often argued that studying overseas is overrated. There are many scholars who study locally. To what extent do you agree that this can affect a quality education?
82. Imagine you have been assigned on the study of the climate change. Which area of climate change will you choose and why? Use examples.
83. Should marketing in companies which produce consumer goods like food and clothing, place emphasis on reputation of the company or short-term strategies like discount and special offers? Why?
84. Some people think human behavior can be limited by the law, while others think the law has little effect. What is your opinion?
85. What do you think are the strengths and weaknesses of the education system in your country? Use your own experience to support your idea.
86. As cities expand, some people claim governments should try to create better networks of public transportation available for everyone rather than building more roads for vehicle owning population. What's your opinion? Give some examples or experience to support.
87. Governments promise continuous economic growth, but it's actually an illusion. Some people think that governments should abandon this. Please talk about the validity and the implications.
88. University experience is more important than a university's degree. Some people argue that university life is much more important than an educational degree in job market. Do you agree or not agree?
89. Some employers take the opinions of their employees when determining the areas to invest in. Please explain whether it will bring advantages or disadvantages.



90. Living in the countryside or having an urban life, which one of these do you prefer? Please use examples or your personal experience to support your opinion.
91. Some people think human behaviors can be limited by laws, others think laws have little effect. What is your opinion?
92. Some people argue that experience is the best teacher. Life experiences can teach more effectively than books or formal school education. How far do you agree with this idea? Support your opinion with reasons and/or your personal experience.
93. Nowadays television has become an essential part of life. It is a medium for disseminating news and information, and for some, it acts like a companion. What is your opinion about this?
94. With the increase of digital media available online, the role of the library has become obsolete. Universities should only procure digital materials rather than constantly textbooks. Discuss both the advantages and disadvantages of this position and give your own point of view.
95. Some people argue that young people should concentrate on study or work, some people think it is better to put energy in activities designed to broaden their experience, such as international travel and volunteering. Support with examples or cases.
96. As cities expanding, some people claim governments should look forward to creating better networks of public transportation available for everyone rather than building more roads for vehicle owning population. What's your opinion? Give some examples or experience to support.
97. Poor lifestyles have a negative impact on people's health. List some unhealthy lifestyles and discuss what government services could help?



98. What do you think is the most important invention for the past 100 years? antibiotics, airplanes, or computers? And why?
99. The time people devote to job leaves very little time for personal life. How widespread is the problem? What problem will this shortage of time cause?
100. What do you think are the strengths and weakness of the education system in your country? Use your own experience to support your idea.
101. Nowadays, people believe that the environment influences their accomplishments. Some people think their success and accomplishment were influenced by the places where they grew up. Do you think the environment does or does not affect people's accomplishment and how it affects?
102. It is often argued that studying overseas is overrated. There are many scholars who study locally. Travel is or is not a necessary component of qualified education? To what extent do you agree or disagree?
103. The disadvantages of tourism in less developed countries is as great as the advantages. What is your opinion?
104. Governments promise continuous economic growths, but it's actually an illusion. Some people think that governments should abandon this. Please talk about validity and implications.
105. In this technological world, the number of new inventions has been increasing. Please describe a new invention and determine whether it will bring advantages or disadvantages.
106. Mass media, including TV, radio and newspapers, plays a pivotal role in shaping our opinions and characters. Do you agree or disagree with it? Support your answer with reasons, examples and experiences.
107. Do you think the design of buildings affects positively or negatively where people live and work?



108. The advanced medical technology will extend human's life. Do you think it is a blessing or a curse?
109. Some universities deduct students' marks if students' work is late. What is your opinion and suggest some alternative actions?
110. Should marketing for consumer goods companies like clothing and food emphasize reputation or short-term strategies like discounts and special offers?
111. Employers should get their employees involved in the decision-making process. What are the pros and cons of such a policy about products and services?
112. Nowadays, people spend too much time at work to the extent that they hardly have time for their personal life. How widespread do you think it is? Discuss the problems caused by the shortage of time.
113. Mass media has an influence on people, particularly on younger generations. It plays a pivot role on shaping the opinions of people, especially teenagers and young people. What do you think about it? Please give examples.
114. Large shopping malls are replacing small local shops. What is your opinion on this? Do you think this is a good or bad development? Use your own experiences.
115. It is argued that getting married before finishing your study or getting established in a good job is foolish. To what extent do you agree or disagree?
116. Mass media, including TV and newspaper, have a great influence on humans, particularly on the younger generation. It has a pivotal role in shaping people's opinions. Discuss the extent you believe or disbelieve. Use your own experience or examples.
117. The mass media, including TV, radio and newspapers, influences our society and shapes our opinions and characters. What is your opinion?



118. Some people argue that experience is the best teacher. Life experiences can teach more effectively than books or formal school education. How far do you believe with this idea? Support your opinion with reasons and/or your personal experience.
119. As cities expanding, some people claim governments should look forward creating better networks of public transportation available for everyone rather than building more roads for vehicle owning population. What's your opinion? Give some examples or experience to support.
120. Whether the design of buildings will have a positive or negative impact on people's life and work?
121. Some people think law changes human behavior. Do you agree or disagree?
122. Marketing in companies should be based on reputation or short-term strategies?
123. You are given climate change as the field of study. Which area would you prefer? Explain why you pick this particular area of your study and give an example in the area you pick.
124. Which areas of concern should governments allocate funds to? Climate change, education, or public health? Explain your idea with examples.
125. What are the advantages of cheaper public transportation? What will cause us to achieve it?
126. The formal written examination can be a valid method to assess students' learning. To what extent do you agree or disagree?
127. Do you think extreme sports like skiing, water rafting, etc. are dangerous and should be prohibited /banned? Are you in favor of these activities, why?
128. Effective learning requires time, comfort and peace so it is impossible to combine study and employment. Study and employment distract one from



another. To what extent do you think the statements are realistic? Support your opinion with examples.

129. Space travel is fantastic these days, but there are many issues, such as environmental problems, that we should be focusing on. What are your views on the allocation of public funding?
130. Mass media, including TV and newspaper, have a great influence on humans, particularly on the younger generation. It can shape people's opinions. What is your opinion?
131. Nowadays, the mass media including TV, radio, and newspaper have become an essential part of our lives. What is your opinion?
132. "The information revolution by modern mass media has both positive and negative consequences for individuals and for society." To what extent do you agree?
133. Some universities deduct students' marks if the assignment is given late. What is your opinion and suggest some alternative actions?
134. Should parents be held legally responsible for the actions of their children? Do you agree with this opinion? Support your position with your own study, experience or observations.
135. Employers involve employees in the decision-making process of products and services. What are the advantages and disadvantages?
136. Do you think experiential learning is beneficial in high schools or colleges?
137. Lifestyle influence people's health. Talk about what political services could help.



READING





RE-ORDER PARAGRAPHS

1.

- A) In his fascinating book Carbon Detox, George Marshall argues that people are not persuaded by information.
- B) Our views are formed by the views of the people with whom we mix.
- C) Of the narratives that might penetrate these circles, we are more likely to listen to those that offer us some reward.
- D) He proposes that instead of arguing for sacrifice, environmentalists should show where the rewards might lie.
- E) We should emphasize the old-fashioned virtues of uniting in the face of a crisis, of resourcefulness and community action.

2.

- A) Take an underperforming company
- B) Add some generous helping of debt, a few spoonfuls of management incentives and trim all the fat.
- C) Leave to cook for five years and you have a feast of profits.
- D) That has been the recipe for private-equity groups during the past 200 years.

3.

- A) The energy sector has a fantastic skills shortage at all levels, both now and looming over it for the next 10 years.
- B) Engineers, in particular, are much needed to develop greener technologies.
- C) Not only are there some good career opportunities, but there's a lot of money going into the research side, too.
- D) With the pressures of climate change and the energy gap, in the last few years funding from the research councils has probably doubled.



4.

- A) The European Union has two big fish problems.
- B) One is that, partly as a result of its failure to manage them properly, its own fisheries can no longer meet European demand.
- C) The other is that its governments won't confront their fishing lobbies and decommission all the surplus boats.
- D) The EU has tried to solve both problems by sending its fishermen to West Africa. Since 1979 it has struck agreements with the government of Senegal, granting our fleets access to its waters.
- E) As a result, Senegal's marine ecosystem has started to go the same way as ours.

5.

- A) New Ventures is a program that helps entrepreneurs in some of the world's most dynamic, emerging economies-- Brazil, China, Colombia, India, Indonesia and Mexico.
- B) We have facilitated more than \$203 million in investment and worked with 250 innovative businesses whose goods and services produce clear, measurable environmental benefits, such as clean energy, efficient water use, and sustainable agriculture.
- C) Often, they also address the challenges experienced by the world's poor.
- D) For example, one of the companies we work with in China, called Eco-star, refurbishes copy machines from the United States and re-sells or leases them for 20 percent less than a branded photocopier.

6.

- A) The "Festival in The Desert" is a celebration of the musical heritage of the Touareg, a fiercely independent nomadic people.



- B) It is held annually near Essakane, an oasis some 40 miles north west of Timbuktu, the ancient city on the Niger River.
- C) Reaching it tests endurance, with miles of impermanent sand tracks to negotiate.
- D) The reward of navigating this rough terrain comes in the form of a three-day feast of music and dance.
- 7.
- A) This is likely to affect the UK's climate and economy with anticipated impacts on industries like tourism and fisheries.
- B) The response of the Arctic to climate change will have an unprecedented impact on how the Arctic ecosystem operates.
- C) Some of the clearest signs of change are the thinning and retreat of sea ice and the migration of species into the Arctic that normally live at lower latitudes.
- D) With the Arctic, the fastest warming region on the planet, climate change is already altering key component of the Arctic environment.
- 8.
- A) This makes you memorize; for these you take notes, and should construct sentences,
- B) After that, it would help you in revising and exercising key words.
- C) To be a good listener, you should take notes.
- D) In the lecture, you should be a good listener.
- 9.
- A) Moreover, he had been studying in four different schools.
- B) Moreover his academic performance was not good.
- C) There is one 11-year old boy who had been adopted by five families.
- D) The consequence is that he has problem fitting in the society.
- E) He was sent to his relatives' family for him to be well taken care of.



10.

- A) A University of Canberra student has launched the nation's first father- led literacy project, to encourage fathers to become more involved in their children's literacy. Julia Bocking's Literacy and Dads (LADS) project aims to increase the number of fathers participating as literacy helpers in K-2 school reading programs at Queanbeyan Primary Schools.
- B) "There's no program like this in Australia," Ms Bocking said, who devised the project as the final component of her community education degree at the University.
- C) Having worked as a literacy tutor with teenagers, Ms Bocking saw the need for good attitudes towards reading to be formed early on - with the help of more male role models.
- D) "Teachers depend on parent helpers in the earlier school years, though research shows that nationally only five percent of these helpers are male"; she said, "A male that values reading sets a powerful role mode, particularly for young boys, who are statistically more likely to end up in the remedial literacy program."

11.

- A) Priority sectors include agriculture, small scale industries, housing, exports, etc
- B) Economics say that a market has failed when the market does not provide efficient outcomes for society
- C) It is not clear how sectors get identified for the priority tag. as there is no clearly articulated logic
- D) The government of India directs substantial bank credit to what it deems are 'priority sectors' for the Indian economy
- E) In my view, a priority sector should be an area of market failure

12.



- A) The fiscal deficit has deteriorated.
- B) There are big gaps in perception and capability of managers
- C) Government finances are terminally impaired with uncontrolled fiscal deficits
- D) The current pace of reforms is too slow
- E) Thus, we can say a good budget is one which makes a sincere attempt to change the policy environment.
- F) Industry too is not ready to deliver growth, should even the government pursue the right policies.

13.

- A) The people and events of the past can only be understood when viewed within the larger context in which they existed.
- B) That is not possible when historical events or topics are isolated and extracted from the web of historic time to serve some other curricular purpose.
- C) The value of history also depends upon the chronological presentation of events through time.
- D) It is only through a chronological survey that students can begin to understand the process of social and cultural change, which is one of the principal purposes of history.

14.

- A) Some students say that they need complete quiet to read and study.
- B) Others study best in crowded, noisy rooms because the noise actually helps them concentrate.
- C) The point is, you should know the level of noise that is optimal for your own studying.
- D) However, one general rule for all students is that the television seems to be more of a distraction than music or other background noise, so leave the TV off



when you are reading or studying. Also, don't let your self-distracted by computer games, email, or internet surfing.

15.

A)

In 1875, the geologist Eduard Suess used the term biosphere to describe the location where all living things dwell.

B) Since this initial formulation, the term has been further developed and is now considered to encompass all the ecosystems of the Earth.

C) It includes every living organism on the planet as well as their interactions with the earth, water, and air.

D) The biosphere is thought to have developed about 3.5 billion years ago when the first living organisms began to appear.

E) Today, some scientists have argued that the biosphere itself is a kind of super organism.

F) Each of the plants, animals and other organisms serve as just a piece of the whole.

16.

A) School has different ways to let parents know how they provide education services.

B) One of the common ways is open days.

C) Open days are good chances for parents to ask what they want to know.

D) These are times when parents can know what works for their children will be doing at school.

17.

A) For many years, I had been thinking of writing a book.

B) Not an ordinary book, but a literature book.



- C) I would do extensive literature reading and think about how I could do as well as they had done.
- D) What I did is what you will need to do.

18.

- A) The research by Will and colleagues dressed 6-month-old babies in different colored outfits that did not necessarily match their gender, so the participants had no way of knowing if the baby was in fact a boy or a girl.
- B) Sometimes, the infant was dressed in blue and was called Adam and sometimes it was dressed in pink and was called Beth.
- C) There were three toys in the room: a train (boy stereotype), a doll (girl stereotype) and a fish (neutral).
- D) This study found that babies dressed in blue and thought to be boys were more likely to be given the train.
- E) Babies in pink or 'girls' were more likely to be given the doll and more people smiled at 'Beth' than at 'Adam'.

19.

- A) In a wonderful set of studies and subsequent book, Elly A. Konijn looked to the question of how much actors are aware of their performance as they perform it, and how much they let the character 'take over'.
- B) She asked Dutch actors to rate their own emotions and the emotions of the characters they were playing across a range of affective states (from disgust and anxiety to tenderness and pleasure).
- C) She found that positive emotions were often felt by the actors as they played those character's emotions.



D) However, the more negative the emotion of the character, the less likely the actor would report feeling that emotion onstage

20.

- A) So now that you've completed the research project, what do you do?
- B) I know you won't want to hear this, but your work is still far from done.
- C) In fact, this final stage – writing up your research – may be one of the most difficult.
- D) Developing a good, effective and concise report is an art form in itself.
- E) And, in many research projects you will need to write multiple reports that present the results at different levels of detail for different audiences.

21.

- A) Cameras help autonomous vehicles read street signs and the color of traffic lights.
- B) But LiDARs, aka light detection and ranging systems, do the important work of sensing and helping cars avoid obstacles, whether that's a fallen tree, drunk driver, or a child running out into the road.
- C) Now, a startup called Luminar Technologies Inc., is unveiling a high-resolution LiDAR sensor that was five years in the making.
- D) The startup, which has raised \$36 million in seed-stage funding so far, built its LiDAR systems from scratch.

22.

- A) Vision and echolocation have many features in common.



- B) One narrow range of radiation – light in the case of vision, ultrasounds in the case of echolocation – provides information relevant to a wide variety of cognitive and practical goals.
- C) Why, then, is vision so common and echolocation so rare?
- D) Because, in most environments, vision is much more effective.
- E) Echolocation is adaptive only in an ecological niche where vision is impossible or badly impaired—for instance, when dwelling in caves and hunting at night, as bats do.

23.

- A) Some students say that they need complete quiet to read and study.
- B) Others study best in crowded, noisy rooms because the noise actually helps them concentrate.
- C) The point is, you should know the level of noise that is optimal for your own studying.
- D) However, one general rule for all students is that the television seems to be more of a distraction than music or other background noise, so leave the TV off when you are reading or studying. Also, don't let your self-distracted by computer games, email, or internet surfing.

24.

- A) Drug resistance is the leading cause of death in women with estrogen-receptor-positive breast cancer, the most common form of the disease.
- B) Now, researchers have identified an ordinary dietary element that may increase the chances of a breast cancer becoming drug-resistant.
- C) The connection of the amino acid leucine to drug resistance raises hopes that a relatively simple intervention, like a shift to a low-leucine diet, can reduce the



incidence of drug resistance, which is responsible for a large portion of the roughly 40,000 breast cancer deaths every year.

- D) The work also raises the possibility that a drug could be developed to mirror the effects of that dietary restriction, by blocking cells' ability to take in leucine from the surrounding environment.

25.

- A) A team of scientists has discovered two Earth-like planets in the habitable orbit of a Sun-like star.
- B) Using observations gathered by NASA's Kepler Mission, the team found five planets orbiting a Sun like star called Kepler-62.
- C) Four of these planets are so-called super-Earths, larger than our own planet, but smaller than even the smallest ice giant planet in our Solar System.
- D) These new super-Earths have radii of 1.3, 1.4, 1.6, and 1.9 times that of Earth. In addition, one of the five was a roughly Mars-sized planet, half the size of Earth.

26.

- A) Innovation in India is as much due to entrepreneurialism as it is to IT skills, says Arun Maria, chairman of Boston Consulting Group in India.
- B) Indian businessmen have used IT to create new business models that enable them to provide services in a more cost-effective way.
- C) This is not something that necessarily requires expensive technical research.
- D) He suggests the country's computer services industry can simply outsource research to foreign universities if the capability is not available locally.
- E) This way, I will have access to the best scientists in the world without having to produce them myself says Mr. Maria.

27.



- A) But beginning in the 1990s, foreign aid had begun to slowly improve.
- B) Scrutiny by the news media shamed many developed countries into curbing their bad practices.
- C) Today, the projects of organizations like the World Bank are meticulously inspected by watchdog groups.
- D) Although the system is far from perfect, it is certainly more transparent than it was when foreign aid routinely helped ruthless dictators stay in power.

28.

- A) For as long as I can remember, there has been a map in the ticket hall of Piccadilly Circus tube station supposedly showing night and day across the time zones of the world.
- B) This is somewhat surprising given the London Underground's historic difficulty in grasping the concept of punctuality.
- C) But this map has always fascinated me, and still does, even though it now seems very primitive.
- D) This is because it chops the world up equally by longitude, without regard the reality of either political divisions or the changing seasons.

29.

- A) A simple way to disprove this hypothesis (the Innateness Hypothesis) is to demonstrate that other species have the capacity to speak but for some reason simply have not developed speech.
- B) A logical candidate for such a species is the chimpanzee, which shares 98.4% of the human genetic code.
- C) Chimpanzees cannot speak because, unlike homo sapiens, their vocal cords



are located higher in their throats and cannot be controlled as delicately as human vocal cords.

- D) It does not follow from their lack of speech, however, that chimpanzees are incapable of language.
- E) Perhaps they can acquire grammar like humans if they could only express it some other way.

30.

- A) In the early years of the twenty-first century the impact of immigrants on the welfare state and, specifically, the capacity of the welfare state to absorb large numbers of immigrants has become a staple of discussion among policy makers and politicians.
- B) It is also a recurrent theme in the press, from the highbrow pages of Prospect to the populism of the Daily Mail.
- C) Inevitably, these discussions focus on present-day dilemmas.
- D) But the issues themselves are not new and have historical roots that go much deeper than have been acknowledged

31.

- A) Unlike Barnes' previous books, Mother of Storms has a fairly large cast of viewpoint characters.
- B) This usually irritates me, but I didn't mind it here, and their interactions are well-handled and informative, although occasionally in moving them about the author's manipulations are a bit blatant.
- C) They're not all necessarily good guys, either, although with the hurricanes wreaking wholesale destruction upon the world's coastal areas, ethical



categories tend to become irrelevant.

D) But even the Evil American Corporate Magnate is a pretty likable guy.

32.

A) SEPAHUA, a ramshackle town on the edge of Peru's Amazon jungle, nestles in a pocket on the map where a river of the same name flows into the Urubamba.

B) That pocket denotes a tiny patch of legally luggable land sandwiched between four natural reserves, all rich in mahogany and accessible from the town.

C) In 2001 the government, egged on by WWF, a green group, tried to regulate logging in the relatively small part of the Peruvian Amazon where this is allowed.

D) It abolished the previous system of annual contracts.

E) Instead, it auctioned 40-year concessions to areas ruled off on a map, with the right to log 5% of the area each year. The aim was to encourage strict management plans and sustainable extraction.

33.

A) Piano keys are generally made of spruce or basswood, for lightness.

B) Spruce is normally used in high-quality pianos.

C) Traditionally, the black keys were made from ebony and the white keys were covered with strips of ivory.

D) But since ivory-yielding species are now endangered and protected by treaty, plastics are now almost exclusively used.



E) Also, ivory tends to chip more easily than plastic.

34.

- A) During the 1920s and 1930s great progress was made in the field of aviation, including the first transatlantic flight of Alcock and Brown in 1919, Charles Lindbergh's solo transatlantic flight in 1927, and Charles Kingsford Smith's transpacific flight the following year.
- B) One of the most successful designs of this period was the Douglas DC-3, which became the first airliner to be profitable carrying passengers exclusively, starting the modern era of passenger airline service.
- C) By the beginning of World War II, many towns and cities had built airports, and there were numerous qualified pilots available.
- D) The war brought many innovations to aviation, including the first jet aircraft and the first liquid-fueled rockets.

35.

- A) After World War II, especially in North America, there was a boom in general aviation, both private and commercial, as thousands of pilots were released from military service and many inexpensive war-surplus transport and training aircraft became available.
- B) Manufacturers such as Cessna, Piper, and Beechcraft expanded production to provide light aircraft for the new middle-class market.
- C) By the 1950s, the development of civil jets grew, beginning with the de Havilland Comet, though the first widely used passenger jet was the Boeing 707, because it was much more economical than other aircraft at that time.
- D) At the same time, turboprop propulsion began to appear for smaller commuter planes, making it possible to serve small-volume routes in a much wider range



of weather conditions.

36.

- A) The topography of the ocean floors is none too well known, since in great areas the available soundings are hundreds or even thousands of miles apart.
- B) However, the floor of the Atlantic is becoming fairly well known as a result of special surveys since 1920.
- C) A broad, well-defined ridge the Mid-Atlantic ridge runs north and south between Africa and the two Americas, and numerous other major irregularities diversify the Atlantic floor.
- D) Closely spaced soundings show that many parts of the oceanic floors in the Atlantic are rugged as mountainous regions of the continents.

37.

- A) Despite posting healthy profits, Volkswagen shares trade at a discount to peers due to bad reputation among investors, high capital expenditure and its close links to the state of Lower Saxony, which effectively has a blocking minority.
- B) A disastrous capital hike, an expensive foray into truck business and uncertainty about the reason for a share buyback has in recent years left investors bewildered.
- C) The main problem with Volkswagen is the past. Many investors have been disappointed and frightened away, said one Paris-based fund managers.
- D) Volkswagen shares trade at about nine times the 2002 estimated, compared to BMWs 19 and are the second cheapest in the sector.

38.

- A) The town of Liberal is said to have been named for an early settler famous



among travelers for being free with drinking water.

- B) Liberal is conservative in a moderate Midwestern kind of way which is changing fast due to big National Beef Packing plant which relies on Hispanic migrants and thus four-fifths of the children in Liberals public- school system is Hispanic.
- C) This should make the town receptive to Democrats, but Mr. Trump easily won the county of which it forms part.
- D) Liberals' mayor, Joe Denoyer, who was raised in a Democratic family near Chicago and moved to Liberal in search of work.
- E) Mr. Denoyer voted for Mr. Trump by being impressed by his promise, though he thinks it unlikely that the president will keep his promises.

39.

- A) Another common mistake is to ignore or rule out data which do not support the hypothesis.
- B) Ideally, the experimenter is open to the possibility that the hypothesis is correct or incorrect.
- C) Sometimes, however, a scientist may have a strong belief that the hypothesis is true (or false) or feels internal or external pressure to get a specific result.
- D) In that case, there may be a psychological tendency to find something wrong, such as systematic effects, with data which do not support the scientist's expectations, while data which do agree with those expectations may not be checked as carefully.

40.

- A) My study of the history of religion has revealed that human beings are spiritual



animals. Indeed, there is a case for arguing that Homo sapiens is also Homo religious.

- B) Men and women started to worship gods as soon as they became recognizably human; they created religions at the same time as they created works of art.
- C) This was not simply because they wanted to propitiate powerful forces.
- D) These early faiths expressed the wonder and mystery that seems always to have been an essential component of the human experience of this beautiful world.

41.

- A) Vegetarians do not eat meat or fish in their diet.
- B) This diet is not only unattractive, but also may cause nutritional imbalance if not managed well.
- C) Restaurants and school cafeteria adjust and amend their menus to adapt to this special diet.
- D) Menus in all of these places have become more balance in nutrients, and also attract those who are not vegetarians.
- E) These developments/improvements won't succeed without the effort of vegetarians.

42.

- A) There are more than 100 schools in the country.
- B) Never, if you can avoid it, accept the offer before going to the place and having a look. You should go and see once you have a chance.
- C) This is important that you see the facilities and accommodations around the school.



D) Because you might be living off campus in the second year.

43.

- A) There is many color such as red and blue in the color system behind the camera.
- B) Use the system to receive colors to generate a black and white image.
- C) And then there comes the color TV/And that's how color TV was invented.
- D) (Further development of color TV)

44.

- A) Although experts like journalists are expected to be unbiased, they inevitably share the system biases of the disciplines and cultures in which they work.
- B) Journalists try to be fair and objective by presenting all sides of a particular issues.
- C) Practically speaking, however, it is about as easy to present all sides of an issue as it is to invite all candidates from all political parties to a presidential debate.
- D) Some perspectives ultimately are not included.

45.

- A) In language learning there is a distinction between competence and performance. Competence is a state of the speaker's mind. What he or she knows?
- B) Separate from actual performance what he or she does while producing or comprehending language. In other words, competence is put to use through



performance.

- C) An analogy can be made to the Highway Code for driving. Drivers know the code and have indeed been tested on it to obtain a driving license.
- D) In actual driving, however, the driver has to relate the code to a continuous flow of changing circumstances and may even break it from time to time.
- E) Knowing the Highway Code is not the same as driving.

46.

- A) All animals have a strong exploratory urge, but for some it is more crucial than others.
- B) It depends on how specialized they have become during the course of evolution.
- C) If they have put all their effort into the perfection of one survival trick, they do not bother so much with the general complexities of the world around them.
- D) So long as the ant eater has its ants and the koala bear has gum leaves, then they are satisfied, and the living is easy.
- E) The non-specialists, however, the opportunists of the animal world, can never afford to relax.

47.

- A) It is wrong, however, to exaggerate the similarity between language and other cognitive skills, because language stands apart in several ways.
- B) For one thing, the use of language is universal all normally developing children learn to speak at least one language, and many learn more than one.
- C) By contrast, not everyone becomes proficient at complex mathematical reasoning, few people learn to paint well, and many people cannot carry a tune.
- D) Because everyone is capable of learning to speak and understand



language, it may seem to be simple.

- E) But just the opposite is true language is one of the most complex of all human cognitive abilities.

48.

- A) In 1992 a retired engineer in San Diego contracted a rare brain disease that wiped out his memory.
- B) Every day he was asked where the kitchen was in his house, and every day he didn't have the foggiest idea.
- C) Yet whenever he was hungry, he got up and propelled himself straight to the kitchen to get something to eat.
- D) Studies of this man led scientists to a breakthrough: the part of our brains where habits are stored has nothing to do with memory or reason.
- E) It offered proof of what the US psychologist William James noticed more than a century ago that humans are mere walking bundles of habits

49.

- A) In May 2006, researchers at Yale University School of Medicine weighed in on the issue with a review article that looked at more than 300 studies on the health benefits of green tea.
- B) They pointed to what they called an "Asian paradox," which refers to lower rates of heart disease and cancer in Asia despite high rates of cigarette smoking.
- C) They theorized that the 1.2 liters of green tea that is consumed by many Asians each day provides high levels of polyphenols and other antioxidants.
- D) These compounds may work in several ways to improve cardiovascular health.



E) Specifically, green tea may prevent the oxidation of LDL cholesterol (the “bad” type), which, in turn, can reduce the buildup of plaque in arteries, the researchers wrote.

50.

- A) International Date Line, imaginary line on the earth's surface, generally following the 380° meridian of longitude, where, by international agreement, travelers change dates.
- B) The date line is necessary to avoid a confusion that would otherwise result.
- C) For example, if an airplane were to travel westward with the sun, 24 hr would elapse as it circled the globe, but it would still be the same day for those in the airplane while it would be one day later for those on the ground below them.
- D) The same problem would arise if two travelers journeyed in opposite directions to a point on the opposite side of the earth, 180° of longitude distant.
- E) The apparent paradox is resolved by requiring that the traveler crossing the date line change his date, thus bringing the travelers into agreement when they meet.

51.

- A) A simple way to disprove this hypothesis (the Innateness Hypothesis) is to demonstrate that other species have the capacity to speak but for some reason simply have not developed speech.
- B) A logical candidate for such a species is the chimpanzee, which shares 98.4% of the human genetic code.
- C) Chimpanzees cannot speak because, unlike homo sapiens, their vocal cords are located higher in their throats and cannot be controlled as delicately as human vocal cords.
- D) It does not follow from their lack of speech, however, that chimpanzees are incapable of language.



E) Perhaps they can acquire grammar like humans if they could only express it some other way.

52.

- A) Paleontologists still argue about the origins of major groups, though new fossil finds since Darwin's time have cleared up many of the disparities in the fossil record. Even during Darwin's lifetime, some transitional forms were found.
- B) Today, many years later, many believe that evolution has progressed at the same steady rate and that the absence of transitional forms can be explained by Darwin's argument that there are huge gaps in the fossil record and that transition usually occurred in one restricted locality.
- C) Others, however, believe that the fossil evidence suggests that, at various stages in the history of life, evolution progressed rapidly, in spurts, and that major changes occurred at these points.
- D) An evolving group may have reached a stage at which it had an advantage over other groups and was able to exploit new niches in nature. Climate change may also have produced a "spurt", as might the extinction of other groups or species, leaving many niches vacant.

53.

- A) When Vijay Govindarajan and Christian Sarkar wrote a blog entry on Harvard Business Review in August 2010 mooted the idea of a "\$300- house for the poor", they were merely expressing a suggestion.
- B) Of course, the idea we present here is an experiment," wrote Prof Govindarajan, a professor of international business at the Tuck School of Business at Dartmouth and Mr Sarkar, a marketing consultant who works on environmental issues - an almost apologetic disclaimer for having such a "far-out" idea.



- C) Who could create a house for \$300 and if it was possible, why hadn't it been done before?
- D) Nonetheless, they closed their blog with a challenge: "We ask chief executives, governments, NGOs, foundations: Are there any takers?"

54.

- A) Recent research has revealed that more than 60,000 species of trees are available globally.
- B) The BCGI (Botanical Gardens Conservation International), a charity that compiled the list of trees on the basis of data gathered from its network of 500 members organizations.
- C) The researchers claim to have collected information over a period of two years from sources including over 500 published contents and 80 experts in the BCGI's network.
- D) The data will be kept updated with the discovery of new species or the extinction of some, said the researchers.
- E) All the data required for the world's trees is now available in one database, thanks to Global Tree Search.

55.

- A) Researchers in the field of artificial intelligence have long been intrigued by games, and not just as a way of avoiding work.
- B) Games provide an ideal setting to explore important elements of the design of cleverer machines, such as pattern recognition, learning and planning.
- C) They also hold out the tantalizing possibility of fame and fortune should the program ever clobber a human champion.
- D) Ever since the stunning victory of Deep Blue, a program running on an IBM supercomputer, over Gary Kasparov, the world chess champion, in 1997, it has been clear that computers would dominate that particular game.



E) Today, though, they are pressing the attack on every front.

56.

- A) Mechanical engineering student Ne Tan is spending the first semester of this year studying at the University of California, Berkeley as part of the Monash Abroad program.
- B) Ne (Tan), an international student from Shanghai, China, began her Monash journey at Monash College in October 2006.
- C) There she completed a diploma that enabled her to enter Monash University as a second-year student.
- D) Now in her third year of study, the Monash Abroad program will see her complete four units of study in the US before returning to Australia in May 2009.

57.

- A) Many students sit in a tutorial week after week without saying anything.
- B) Why is that?
- C) Maybe they do not know the purpose of a tutorial.
- D) They think it is like a small lecture where the tutor gives them information.
- E) Even if students do know what a tutorial is for, there can be other reasons why they keep quiet.

58.

- A) Jet stream, narrow, swift currents or tubes of air found at heights ranging from 7 to 8 mi (11.3–12.9 km) above the surface of the earth.
- B) They are caused by great temperature differences between adjacent air masses.
- C) Instead of moving along a straight line, the jet stream flows in a wavelike fashion; the waves propagate eastward (in the Northern Hemisphere) at speeds considerably slower than the wind speed itself.



- D) Since the progress of an airplane is aided or impeded depending on whether tail winds or head winds are encountered.
- E) In the Northern Hemisphere the jet stream is sought by eastbound aircraft, in order to gain speed and save fuel, and avoided by westbound aircraft.

59.

- A) Innovation in India is as much due to entrepreneurialism as it is to IT skills, says Arun Maria, chairman of Boston Consulting Group in India.
- B) Indian businessmen have used IT to create new business models that enable them to provide services in a more cost-effective way.
- C) This is not something that necessarily requires expensive technical research.
- D) He suggests the country's computer services industry can simply outsource research to foreign universities if the capability is not available locally.
- E) "This way, I will have access to the best scientists in the world without having to produce them

60.

- A) Humans appear to be the only species which is able to translate their communication into another medium, and in this case the medium provides a semi-durable record of the elements of the communication.
- B) So reading is a very special ability that we have.
- C) Reading also is special because, unlike language, most children have to be taught to read, write and spell.
- D) So though we may be predisposed to being able to read and usually have the abilities necessary to master reading, it is something that most of us only accomplish through the direct help of others.

61.

- A) Earlier this year, researchers from Duke University went to Gabon to monitor that country's dwindling elephant population. They took along three drones,



which they planned to use to count the elephants, follow their herds, and map their migrations.

- B) Only things didn't exactly go as planned.
- C) The elephants noticed the drones, which hovered anywhere from 25 feet to 300 feet above them. And it wasn't just that the elephants noticed them; in many cases, the elephants were clearly agitated. Some of them took off running. In at least one case, an elephant used her trunk to hurl mud in the drone's direction.
- D) The elephants reacted so strongly, the researchers believe, because drones, it turns out, sound a lot like bees. And elephants do not like bees. At all.

62.

- A) It is natural to be healthy, but we have wandered so far astray that disease is the rule and good health, the exception.
- B) Of course, most people are well enough to attend to their work, but nearly all are suffering from some ill, mental or physical, acute or chronic.
- C) There is too much illness, too much suffering.
- D) We are losing every year a vast army of individuals who are in their productive prime.
- E) The average individual is of less value to himself, to his family and to society than he could be.

63.

- A) Advertising is introducing goods and ... and is sponsored by identical companies. Sentence
- B) This allows companies to present their products in a less costly way to lots of people (something like that) that are channel members. Sentence
- C) (something about advertising on TV) marketers also find a less costly way for advertisement is digital media such as social media. Sentence
- D) Marketers also consider other media: cinema, station.



64.

- A) A healthy school setting gives all students the best chance to learn and grow.
- B) Vaccines are very important to this effort.
- C) They protect children from getting and spreading diseases that can make them very sick.
- D) For this reason, we require children aged 2-months to 18-years old who are entering or attending child care, public school, or private school be vaccinated against certain diseases.

65.

- A) During the past few years, some of the world's biggest names in high-end fashion have begun to see children's clothes as a promising sideline with which to extract more value from their main business.
- B) Jean Paul Gaultier, Chloe and John Galliano have all launched children's clothes lines.
- C) But for France's Bon point, making kids' clothing is the main business.
- D) Since Bon point was founded 40 years ago by clothes store owner Marie-France and Bernard Cohen, children and babies have been at the center of the brand's development.

66.

- A) Many of us happily drive a car without understanding what goes on under the bonnet.
- B) So, is it necessary for children to learn how to program computers?
- C) After all, some experts say coding is one of the human skills that will become obsolete as artificial intelligence grows.
- D) Nevertheless, governments believe coding is an essential skill.

67.



- A) By 2100, human-induced climate change threatens to raise temperatures by 2-4°C and push up tide-lines by 4-6m.
- B) The government has promised to help counter this global trend by reducing UK carbon emissions by 80 percent from 1990 levels by 2050.
- C) And with the second largest tidal range in the world, British marine energy could play an important role in this shift.
- D) But harnessing the power of the tides is not without consequence.
- E) In 2013, plans to construct a 34 billion pounds barrage across the Severn estuary were rejected after concerns were raised about its effect on local ecosystems.

68.

- A) A major review of antidepressants has found they are largely ineffective and may even be harmful for children and teens' depression in the Amazon.
- B) The true effectiveness and risk of serious harms is found in the borders of Amazon such as suicidal thoughts remain unclear because of the small number of trials and the selective reporting findings in published trials and clinical study reports.
- C) The study authors recommend that children and adolescents taking antidepressants should be carefully monitored closely and permanently, and prohibit the study of children's antidepressants.
- D) This was widely opposed by multi-billion companies that have already invested antidepressants.
- E) It is therefore recommended a child-could self-approach starting with a low dose and building up gradually to prevent the side effects.

69.

- A) Totalitarianism is a political and social concept that explains a form of government where the state has all control over the civilians.



- B) Such government assumes full power, without any limitations.
- C) As put by Juan Linz, a totalitarian scholar, the three main factors of a totalitarianism government are " a monistic center of power; an ideology developed, justified and pursued by the leadership; and mass participation in political and social goals encouraged and even demanded by that same leadership."
- D) Throughout the 20th century, the manifestation of totalitarianism was an extreme measure of harsh political occurrences.

70.

- A) People didn't know pandas well.
- B) Now, people can attach a GPS to them.
- C) This GPS can transmit data every couple of hours for up to two years.
- D) Then it is found five pandas' habitats sometimes overlap.

71.

- A) Your first draft is complete, but your paper is far from finished.
- B) The next step is to revise your paper: strengthen the content.
- C) Start this at least a week before your paper is due.
- D) In fact, you don't need to wait until you have a complete first draft to start revising.
- E) You can revise individual paragraphs as you finish them as well.

72.

- A) History is selective.
- B) What history books tell us about the past is not everything that happened, but what historians have selected.
- C) They cannot put in everything: choices have to be made.
- D) Choices must similarly be made about which aspects of the past should be formally taught to the next generation in the shape of school history lessons.



73.

- A) About what an email list is. Sentence
- B) What the use of email list is. You can arrange contacts into a particular group in the email list. Sentence
- C) For example, if I am a group member, I can choose group-sending. Sentence
- D) Further explanation for the example. No new words, and very easy.

74.

- A) A review is a survey of what you have covered.
- B) It is a review of what you are supposed to accomplish not what you are going to do.
- C) Rereading is an important part of the review process.
- D) Reread with the idea that you are measuring what you have gained from the process.

75.

- A) If you look at how a US city is laid out on a map, you usually find a grid pattern of streets going from north to south and east to west, and they cross at a very precise 90-degree angle.
- B) In cities elsewhere, such as those in many European countries, streets follow a meandering pattern, following the rivers and natural landmarks.
- C) This is not simply a case of an older, irregular pattern giving way to a later American invention, however.
- D) The ancient Romans, for example, laid out their streets mathematically many years previously, and this also produced a grid pattern.

76.

- A) There is a difference between Gandhiji's concept of secularism and that of Nehru's.
- B) In Gandhiji's view, secularism stands for equal respect for all religions.



- C) Nehru's idea of secularism was equally indifferent to all religions and bothering about none of them.
- D) Such secularism which means the rejection of all religions is contrary to our culture and tradition.
- E) Instead of doing any good, such secularism can do harm.

77.

- A) We know very little about wild pandas because they are so rare and live in almost impenetrable forest.
- B) But in 2010 and 2011, Vanessa Hull of Michigan State University and her colleagues were given permission to attach GPS tracking collars to five pandas in the Wolong National Nature Reserve in China.
- C) The collars transmitted each animal's position every four hours, for up to two years.
- D) The team found that the home ranges of individual pandas overlapped and, on a few occasions, two animals spent several weeks in close proximity.
- E) "Sometimes the pandas were within 10 or 20 meters of each other, which suggests the pandas were in direct interaction," Hull says.

78.

- A) In 1875, the geologist Eduard Suess used the term biosphere to describe the location where all living things dwell.
- B) Since this initial formulation, the term has been further developed and is now considered to encompass all the ecosystems of the Earth.
- C) It includes every living organism on the planet as well as their interactions with the earth, water, and air.
- D) The biosphere is thought to have developed about 3.5 billion years ago when the first living organisms began to appear.



- E) Today, some scientists have argued that the biosphere itself is a kind of super organism.
- F) Each of the plants, animals and other organisms serve as just a piece of the whole.

79.

- A) Roads of rails called Wagonways were being used in Germany as early as 1550.
- B) These primitive railed roads consisted of wooden rails over which horse-drawn wagons or carts moved with greater ease than over dirt roads. Wagonways were the beginnings of modern railroads.
- C) By 1776, iron had replaced the wood in the rails and wheels on the carts.
- D) In 1789, Englishman, William Jessup designed the first wagons with flanged wheels.
- E) The flange was a groove that allowed the wheels to better grip the rail, this was an important design that carried over to later locomotives.

80.

- A) Within the country, there are more than 100 schools in the country providing course and accommodations.
- B) Never choose a school without going to the place and having a look. You should go and see once you have a chance.
- C) You can see the facilities and accommodations around the school.
- D) Because you might be living there.
- E) And they can be helpful to your study as well.

81.

- A) Heart attack is caused by the sudden blockage of a coronary artery by a blood clot.
- B) When the clot is formed, it will stay in the blood vessels.
- C) The clot in blood vessels will block blood flow.



D) Without the normal blood flow, it will cause muscle contraction.

82.

- A) A simple way to disprove this hypothesis (the Innateness Hypothesis) is to demonstrate that other species have the capacity to speak but for some reason simply have not developed speech.
- B) A logical candidate for such a species is the chimpanzee, which shares 98.4% of the human genetic code.
- C) Chimpanzees cannot speak because, unlike homo sapiens, their vocal cords are located higher in their throats and cannot be controlled as delicately as human vocal cords.
- D) It does not follow from their lack of speech, however, that chimpanzees are incapable of language. Perhaps they can acquire grammar like humans if they could only express it some other way.
- E) The obvious alternative is sign language, since all primates have extremely dexterous hands and sign language is a language. You have probably already read about the regular chimpanzees Washoe and Nim Chimsky, and the lowland gorilla Koko, all of whom learned to sign and interact very naturally with their trainers.
- F) All of these animals were taught to sign in order to get food, tickling, grooming, toys, and to get out of their cages. The question, then, is: is chimpanzee and gorilla signing language?

83.

- A) International Economics: Theory and Policy is a proven approach in which each half of the book leads with an intuitive introduction to theory and follows with self-contained chapters to cover key policy applications.



- B) The Eighth Edition integrates the latest research, data, and policy in hot topics such as outsourcing, economic geography, trade and environment, financial derivatives, the subprime crisis, and China's exchange rate policies.
- C) New for the Eighth Edition, all end-of-chapter problems are integrated into MyEconLab, the online assessment and tutorial system that accompanies the text.
- D) Students get instant, targeted feedback, and instructors can encourage practice without needing to grade work by hand. For more information visit MyEconLab.

84.

- A) In Montana as elsewhere, companies that have acquired older mines respond to demands to pay for cleanup in either of two ways.
- B) Especially if the company is small, its owners may declare the company bankrupt, in some cases conceal its assets, and transfer their business efforts to other companies or to new companies that do not bear responsibility for cleanup at the old mine.
- C) If the company is so large that it cannot claim that it would be bankrupted by cleanup costs (as in the case of ARCO that I shall discuss below), the company instead denies its responsibility or else seeks to minimize the costs.
- D) In either case, either the mine site and areas downstream of it remain toxic, thereby endangering people, or else the U.S. federal government and the Montana state government (hence ultimately all taxpayers) pay for the cleanup through the federal Superfund and a corresponding Montana state fund.

85.

- A) Historical records, coins, and other date-bearing objects can help – if they exist. But even prehistoric sites contain records written in nature's hand.



- B) The series of strata in an archaeological dig enables an excavator to date recovered objects relatively, if not absolutely.
- C) However, when archaeologists want to know the absolute date of a site, they can often go beyond simple stratigraphy.
- D) For example, tree ring, Dendrochronology (literally, tree time) dates wooden artefacts by matching their ring patterns to known records, which, in some areas of the world, span several thousand years.

86.

- A) Australia's native plants and animals adapted to life on an isolated continent over millions of years.
- B) Since European settlement they have had to compete with a range of introduced animals for habitat, food and shelter.
- C) Some have also had to face new predators.
- D) These new pressures have also caused a major impact on our country's soil and waterways and on its native plants and animals.

87.

- A) Numbers of staff who wish to turn up and do a simple job and go home is relatively happy if they believe their work is secure.
- B) However, any employee who wants to acquire more varied and responsible duties will not feel satisfied for long staying with the same and boring job.
- C) People want to keep working hard only if there are opportunities for promotion to a more challenging job.
- D) If this opportunity does not exist, they are most likely to be demotivated.

88.

- A) Latest research has found that several common flower species have nanoscale ridges on the surface of their petals that meddle with light when viewed from certain angles.



- B) These nanostructures scatter light particles in the blue to ultraviolet color spectrum, generating a subtle effect that scientists have christened the 'blue halo'.
- C) By manufacturing artificial surfaces that replicated 'blue halos', scientists were able to test the effect on pollinators, in this case foraging bumblebees.
- D) They found that bees can see the blue halo, and use it as a signal to locate flowers more efficiently.

89.

- A) It was there that Rosa Parks, an African American woman, refused to vacate her seat in the middle of the bus so that a white man could sit in her place.
- B) She was arrested for her civil disobedience.
- C) Parks' arrest, a coordinated tactic meant to spark a grassroots movement, succeeded in catalyzing the Montgomery bus boycott.
- D) Parks was chosen by King as the face for his campaign because of Parks' good standing with the community, her employment and her marital status.
- E) In many ways, the Montgomery bus boycott kicked off a national struggle to eliminate national discrimination, with King leading the way and ultimately become the nation's racial equality movement.

90.

- A) Sherbet powder is a mix of baking soda and citric acid.
- B) When it is mixed with water in your mouth, an endothermic reaction occurs, taking heat energy from your mouth and making it feel cooler.
- C) Another example of an endothermic reaction is the cold packs used by athletes to treat injuries.
- D) This process is endothermic-taking heat energy from the surroundings and cooling the injured part of your body. In this way, the cold pack acts as an ice pack.



91.

- A) Formal medical education in Manchester began in 1814 when Joseph Jordan opened the first anatomy school in the English provinces.
- B) Previous lecture courses in medicine had included a series given by Peter Mark Roget, then a physician at Manchester Infirmary (1804–1808), but better known for his later Thesaurus.
- C) Jordan, however, offered dissections as well as lectures, and medical education proved good business.
- D) In London, the private anatomy schools, which had competed with each other for decades, became incorporated with the hospitals, but in the provinces, private medical schools continued beyond 1870, using the hospitals for clinical teaching but not formally attached to them.

92.

- A) Students probably don't know how to achieve high marks in exams.
- B) Actually, you don't have to write down everything you know.
- C) Before writing, you should figure out what the question is after, and what is not relevant.
- D) And then you will have an idea of what you should write: write as many points as the number in the question indicates.
- E) If there is a 'three', you should arrange your response as three points.

93. 32.

- A) Due to its ability to solve all main problems associated with digital goods, Digital Rights Management is the favorite option used by companies to tackle piracy.
- B) The aim of this article is to discuss the consequences of DRM for consumers, firms and society.



- C) The rationales of DRM are discussed and the expected benefits for firms are presented.
- D) In contrast, consumers are shown to be likely to see few benefits in DRM.
- E) The article concludes with some public policy recommendations.

94.

- A) Around 1 billion people depend on water resources originating from the Hindu-Kush Karakoram Himalayan region, attributable to both rainfall and melting of snow and ice.
- B) The wind in the valleys in the region plays an important role in transporting clouds and moisture and redistributing snow in the valleys, and so understanding what drives this wind is crucial.
- C) Around the world, wind in valleys generally travels up the valley, and up the sides of mountains, during the day.
- D) This is often driven by differences in pressure caused by the slopes of the mountains and the shape of the valleys.

95.

- A) Researchers studied groups of people from the University of Wisconsin-Madison community, ranging in age from 18 to 65.
- B) The first group was asked to perform simple tasks, like pressing a button every time they took a breath or clicking in response to a letter popping up on a computer screen; these tasks were so easy that their minds were likely to wander, the researchers figured.
- C) The researchers checked in periodically, asking the participants if their minds were on task or wandering.
- D) When the task was over, they measured each participant's working memory capacity by having them remember letters while doing math equations.

96.



- A) Bitcoin is an online money.
- B) That's to say you need to download mobile phone app to use such money.
- C) With above done it generates a bitcoin address.
- D) This address can only be used once.

97.

- A) Aboard the ship Discovery, Hudson left England in April 1610.
- B) He and his crew, which again included his son John and Robert Juet, made their way across the Atlantic Ocean.
- C) After skirting the southern tip of Greenland, they entered what became known as the Hudson Strait.
- D) The exploration then reached another of his namesakes, the Hudson Bay.

98.

- A) Indeed, we lack practice and experience nowadays in dealing with primitive conditions.
- B) The last creature to compete with man was the mosquito. But even the mosquito has been subdued by attention to drainage and by chemical sprays.
- C) In man's early days, competition with other creatures must have been critical.
- D) I am sure that, without modern weapons, I would make a very poor show of disputing the ownership of a cave with a bear, and in this I do not think that I stand alone.
- E) But this phase of our development is now finished.

99.

- A) It is useless to argue with the mind in this condition.
- B) And if this something else is rightly chosen, if it is really attended by the illumination of another field of interest, gradually, and often quite swiftly, the old undue grip relaxes and process of recuperation and repair begins.
- C) The stronger the will, the more futile that task.



D) A gifted American psychologist has said, 'Worry is a spasm of the emotion; mind catches hold of something and will not let it go.'

100.

- A) But how to deal with this e-waste has become a problem.
- B) Such as washing machine, video game players, etc.
- C) The amount of e-waste has been growing by 3 % to 5% every year.
- D) The invention of electronic devices is a huge step and advancement of humans.

101.

- A) The students do the question with confuse and...
- B) I observe their behavior and record their strategies
- C) I invited one student from their school each time, set them comfort and then give them a puzzle.
- D) One is very easily; another is very hard.
- E) When I was a young scholar, I do a... research that change my perception.

102.

- A) Now we have this system
- B) Once you have this system, even those people who don't understand management can use it well.
- C) This system can benefit
- D) You may have heard about a client management system that can collaborate clients' data.
- E) If we have such a system.

103.

- A) Merchants soon grew rich as the demand for products increased
- B) People found work in transporting the goods or selling them.



- C) Trade started from person to person but grew to involve different towns in different lands
- D) Eventually, people got a greater variety of things to choose from

104.

- A) Above all, Marx's fresh perspective on 19th-century events encouraged his readers to think, and his writing is surprisingly relevant today.
- B) During his 11 years of writing for the New York Tribune, Marx tackled an abundance of topics, from issues of class and the state to world affairs.
- C) Particularly moving pieces highlight social inequality and starvation in Britain, while others explore his groundbreaking views on the slave and opium trades – Marx believed Western powers relied on these and would stop at nothing to protect their interests.
- D) Karl Marx is arguably the most famous political philosopher of all time, but he was also one of the great foreign correspondents of the nineteenth century.

105.

- A) Well likely have two billion more mouths to feed by mid-century—more than nine billion people.
- B) But sheer population growth isn't the only reason we'll need more food.
- C) The spread of prosperity across the world, especially in China and India, is driving an increased demand for meat, eggs, and dairy, boosting pressure to grow more corn and soybeans to feed more cattle, pigs, and chickens.
- D) If these trends continue, the double whammy of population growth and richer diets will require us to roughly double the amount of crops we grow by 2050.

106.

- A) The lists also have other publications.
- B) it sorted by dates and categories.
- C) It has a books list for A German writer.



D) but it doesn't provide search function.

107.

- A) A few years later a personal invention of the wagon,
- B) First said before the rail with wood,
- C) Changed to steel,
- D) Later industrialized,
- E) Finally, how can this wagon look like

108.

- A) Although there is always some risk that a large impact could occur, careful study shows that this risk is quite small.
- B) The group conducting the study concluded from a detailed analysis that impacts from meteorites can indeed be hazardous.
- C) Earth is a target in a cosmic shooting gallery, subject to decades ago.
- D) In 1991 the United States Congress asked NASA to investigate the hazard posed today by large impacts on Earth.

109.

- A) But beginning in the 1990s, foreign aid had begun to slowly improve.
- B) Scrutiny by the news media shamed many developed countries into curbing their bad practices.
- C) Today, the projects of organizations like the World Bank are meticulously inspected by watchdog groups.
- D) Although the system is far from perfect, it is certainly more transparent than it was when foreign aid routinely helped ruthless dictators stay in power.

110.

- A) Jet stream, narrow, swift currents or tubes of air found at heights ranging from 7 to 8 mi (11.3–12.9 km) above the surface of the earth.



- B) They are caused by great temperature differences between adjacent air masses. There are four major jet streams.
- C) Instead of moving along a straight line, the jet stream flows in a wavelike fashion; the waves propagate eastward (in the Northern Hemisphere) at speeds considerably slower than the wind speed itself.
- D) Since the progress of an airplane is aided or impeded depending on whether tail winds or head winds are encountered.
- E) In the Northern Hemisphere the jet stream is sought by eastbound aircraft, in order to gain speed and save fuel, and avoided by westbound aircraft.

111.

- A) All over the world students are changing countries for their university studies.
- B) They don't all have the same reasons for going or for choosing a particular place to study.
- C) They may choose a university because of its interesting courses or perhaps because they like the country and its language.
- D) Some students go overseas because they love travel.
- E) Whatever the reason, thousands of students each year make their dreams of a university education come true.

112.

- A) I think we should be wary of the reporting of science - it is often over-dramatized in order to secure an audience - but not of science itself.
- B) Of course, there may be the extremely rare example of scientific dishonesty, which will be seized upon by the news organizations, but the role of science within modern society remains valuable.
- C) Mobile phones, for example, can cause incidents if drivers insist on talking on the phone instead of looking at roads.



- D) But no one would deny that mobile phones can help us to make a phone call when we are under a crisis.
- E) In other words, I firmly believe that the development of science and the extension of understanding is a public good.

113.

- A) Over the years many human endeavors have had the benefit of language.
- B) In particular a written language can convey a lot of information about past events, places, people and things.
- C) But it is difficult to describe music in words, and even more difficult to specify a tune.
- D) It was the development of a standard musical notation in the 11th century that allowed music to be documented in a physical form.
- E) Now music could be communicated efficiently and succeeding generations would know something about the music of their ancestors.

114.

- A) Your main job in taking lecture notes is to be a good listener.
- B) To be a good listener, you must learn to focus and concentrate on the main points of the lecture.
- C) Get them down, and then later reorganize them in your own words.
- D) Once you have done this, you have set the stage for successful reviewing and revising.

115.

- A) During the school year, we had the benefit of being both unaccountable and omnipotent.
- B) Insulated from the consequences of such decisions, and privy to all critical information about the case, we were able to solve complex business problems with relative ease.



- C) We knew that once we began our internships, this would no longer be the case.
- D) The information would be more nebulous, and the outcomes of our decisions would be unpredictable.
- E) So, in approaching this impending summer period, what lingered in the back of our minds was a collectively felt, unspeakable thought: "Were we really up to the challenge?"

116.

- A) In language learning there is a distinction between competence and performance. Competence is a state of the speaker's mind. What he or she knows?
- B) Separate from actual performance – what he or she does while producing or comprehending language. In other words, competence is put to use through performance.
- C) An analogy can be made to the Highway Code for driving. Drivers know the code and have indeed be untested on it to obtain a driving license.
- D) In actual driving, however, the driver has to relate the code to a continuous flow of changing circumstances and may even break it from time to time.
- E) Knowing the Highway Code is not the same as driving.

117.

- A) All animals have a strong exploratory urge, but for some it is more crucial than others.
- B) It depends on how specialized they have become during the course of evolution.
- C) If they have put all their effort into the perfection of one survival trick, they do not bother so much with the general complexities of the world around them.
- D) So long as the ant eater has its ants and the koala bear is gum leaves, then they are satisfied, and the living is easy.



E) The non-specialists, however, the opportunists of the animal world, can never afford to relax.

118.

- A) The wildebeests follow, in their migration, the pattern of local rainfall.
- B) But when a new area is fueled by rain, the mammals migrate toward it in a set order to exploit it.
- C) The other species do likewise.
- D) The sequence in which they migrate correlates with their body size.
- E) The differences in feeding preferences lead, in turn to differences in migratory habits.

119.

- A) This radiation heats the surface of the land and ocean, and these surfaces then reradiate infrared radiation back into space.
- B) A greenhouse has is one that absorbs infrared radiation and then reradiates some of this radiation back to Earth.
- C) This allows Earth to avoid heating up too much.
- D) About 70 percent of the Sun's energy passes through the atmosphere and strikes Earth's surface.
- E) However, not all of the infrared radiation makes it into space; some is absorbed by gases in the atmosphere and is reradiated back to Earth's surface.

120.

- A) It makes an edgy backdrop for TV commercials and fashion shoots, and looms over an episode of the science-fiction series "Black Mirror".
- B) A glossy brochure of Cape Town film locations proclaims the cut-off highway "truly special", with great city views.
- C) Four decades late, the hulking slabs of concrete still end in precipitous drops.



- D) It is an odd-looking landmark in a beautiful city: sections of elevated road left suspended in mid-air when construction stopped in the 1970s.
- E) Between the ocean and the mountain, there's the unfinished highway.

121.

- A) Subsequently a chain of nuclear power stations was planned.
- B) In Britain, Calder Hall on the coast of Cumberland first made its contribution to the National Electricity grid in 1957.
- C) Of necessity they are sited near the coasts or tidal water because of the need of much water for cooling and a certain discharge of possible radioactive effluent.
- D) Faith in controlled nuclear fission is now being shown by the construction of atomic power stations.

122.

- A) Allan Adams says this discovery helps answer some of our biggest questions about the universe.
- B) His talk on the discovery of gravitational waves was chosen as one of the top 10 TED Talks of 2016.
- C) In 2015, scientists first detected gravitational waves- ripples in space caused by massive disturbances.
- D) Allan Adams is a theoretical physicist and professor at MIT. E) Before joining the faculty of the MIT physics department, Adams received degrees in physics from Harvard, Berkeley, and Stanford.

123.

- A) According to experts, feeding birds is probably the most common way in which people interact with wild animals today.
- B) More than 50 million Americans engage in the practice, collectively undertaking an unwitting experiment on a vast scale.



- C) Is what we're doing good or bad for birds?
- D) Recently, researchers at the Cornell Lab of Ornithology sought to answer this question, analyzing nearly three decades' worth of data from a winter-long survey called Project Feeder Watch.
- E) Preliminary results suggest the species visiting our feeders the most are faring exceptionally well in an age when one-third of the continent's birds need urgent conservation.

124.

- A) Fruit and vegetable intake is important for the prevention of future chronic disease. So, it's important to know whether intakes of teens are approaching national objectives for fruit and vegetable consumption.
- B) Larson and colleagues from the University of Minnesota undertook the study to examine whether or not teens in the state were increasing their intake of fruits and vegetables.
- C) The study gathered information about fruit and vegetable intake among 944 boys and 1.161 girls in 1999 and again in 2004.
- D) Teens in middle adolescence are eating fewer fruits and vegetables than in 1999. Larson and colleagues found.
- E) This is giving us the message that we need new and enhanced efforts to increase fruit and vegetable intake that we haven't been doing in the past.

125.

- A) There is a growing consensus that, if serious action is to be taken to reduce greenhouse gas (GHG) emissions in Canada, a price must be applied to those emissions.
- B) There are, however, challenges associated with the political acceptability of carbon pricing.



- C) If Canada implements a carbon price on its own, there are worries that Canadian factories will relocate to other countries to avoid the regulation.
- D) Even if other countries act in concert with Canada to price carbon, the effects will be uneven across sectors, and lobbying efforts by relatively more-affected sectors might threaten the political viability of the policy.

126.

- A) Wal-Mart's core shoppers are running out of money much faster than a year ago due to rising gasoline prices, and the retail giant is worried, CEO Mike Duke said Wednesday.
- B) "We're seeing core consumers under a lot of pressure," Duke said at an event in New York. "There's no doubt that rising fuel prices are having an impact."
- C) Wal-Mart shoppers, many of whom live pay check to pay check, typically shop in bulk at the beginning of the month when their pay checks come in.
- D) Lately, they're "running out of money" at a faster clip, he said.
- E) "Purchases are really dropping off by the end of the month even more than last year," Duke said. "This end-of-month [purchases] cycle is growing to be a concern."

127.

- A) Although experts like journalists are expected to be unbiased, they inevitably share the system biases of the disciplines and cultures in which they work.
- B) Journalists try to be fair and objective by presenting all sides of a particular issues.
- C) Practically speaking, however, it is about as easy to present all sides of an issue as it is to invite all candidates from all political parties to a presidential debate.
- D) Some perspectives ultimately are not included.

128.



- A) SEPAHUA, a ramshackle town on the edge of Peru's Amazon jungle, nestles in a pocket on the map where a river of the same name flows into the Urubamba.
- B) That pocket denotes a tiny patch of legally loggable land sandwiched between four natural reserves, all rich in mahogany and accessible from the town. "Boundaries are on maps," says a local logger, "maps are only in Lima," the capital.
- C) In 2001 the government, egged on by WWF, a green group, tried to regulate logging in the relatively small part of the Peruvian Amazon where this is allowed.
- D) It abolished the previous system of annual contracts.
- E) Instead, it auctioned 40-year concessions to areas ruled off on a map, with the right to log 5% of the area each year. The aim was to encourage strict management plans and sustainable extraction.

129.

- A) During the 1920s and 1930s great progress was made in the field of aviation, including the first transatlantic flight of Alcock and Brown in 1919, Charles Lindbergh's solo transatlantic flight in 1927, and Charles Kingsford Smith's transpacific flight the following year.
- B) One of the most successful designs of this period was the Douglas DC-3, which became the first airliner to be profitable carrying passengers exclusively, starting the modern era of passenger airline service.
- C) By the beginning of World War II, many towns and cities had built airports, and there were numerous qualified pilots available.
- D) The war brought many innovations to aviation, including the first jet aircraft and the first liquid-fueled rockets.

130.



- A) The topography of the ocean floors is none too well known, since in great areas the available soundings are hundreds or even thousands of miles apart.
- B) However, the floor of the Atlantic is becoming fairly well known as a result of special surveys since 1920.
- C) A broad, well-defined ridge—the Mid-Atlantic ridge—runs north and south between Africa and the two Americas.
- D) Numerous other major irregularities diversify the Atlantic floor.
- E) Closely spaced soundings show that many parts of the oceanic floors are rugged as mountainous regions of the continents.

131.

- A) In addition, one of the five was a roughly Mars-sized planet, half the size of Earth.
- B) A team of scientists has discovered two Earth-like planets in the habitable orbit of a Sun-like star.
- C) Four of the planets are so-called Super-Earths, larger than our own planet, but smaller than even the smallest ice giant planet in our Solar System.
- D) Using observations gathered by NASA's Kepler Mission, the team found five planets orbiting a Sun-like star called Kepler-62.
- E) These new super Earths have radii of 1.3, 1.4, 1.6 and 1.9 times that of Earth.

132.

- A) The consequence is that refugee acceptance is slowing down.
- B) Australian immigration policy was relatively loose before.
- C) We accept more refugees than we were expected.
- D) At the same time, new refugee policies have been changed secretly.
- E) Because of the election, refugee applications are extended.

133.

- A) If you want to visit Mars, visit Turkey.



- B) That's where you'll find lakes so salty that the only bugs able to live there are species that could probably survive on Mars as well.
- C) For that reason, microbiologists in Turkey have surveyed the array of species that inhabit the Acigol, Saida and Yareli lakes.
- D) They're hopeful that studying some of them will yield useful insights into the kinds of biology that could help microbes exist on Mars or other potentially habitable planets and moons.

134.

- A) This site contains a comprehensive listing of the works of Norbert Elias, a German sociologist.
- B) The site lists not only his published books and articles but also manuscripts and oral communications, in a variety of media and including reprints and translations.
- C) The material has been catalogued, cross-referenced and organized by date.
- D) There is, however, no search facility.

135.

- A) Why Applied Computer Science?
- B) With rapid advances in technology and new applications being developed constantly, it is hard to say what those problems will be.
- C) Our Applied Computer Science major is all about giving you the skills to solve computer related problems.
- D) One thing is for sure, though, it is going to be exciting finding out.

136.

- A) To do this, the manager should be able to motivate employees.
- B) However, this is easier said than done.
- C) The job of a manger in a workplace is to get things done through employees.
- D) Motivation is something that everyone needs.



137.

- A) For example, before writing the thesis, try to understand the requirement of the topic and find out the relevant facts.
- B) Students may not know how to achieve good grades in exams.
- C) Actually, you don't have to write down everything you know.
- D) And then you will have an idea of what you should write.
- E) Before writing, you should figure out what the question is, and what is not relevant

138.

- A) Later on, someone invented a wagon.
- B) With the industrial development, steel railway was invented which then replaced the wood railway.
- C) The railway can save time and money.
- D) The railway is a good invention, but there was only wood railway in the beginning.

139.

- A) But what Darwin rightly recognized is that—panda fans avert your eyes – worm conservation is much more important once we factor in their provision of what we now call “ecosystem services”, which are crucial to human survival.
- B) Not all wildlife is created equal in our eyes.
- C) Take the earthworm, which doesn't have the widespread appeal of larger, more charismatic animals such as gorillas, tigers of pandas.
- D) Worms are never going to get a strong “cute response” and they won't ever be the face of a conservation campaign.

140.

- A) On the one hand, they differ concerning the degree to which gender equality concepts are embedded in various legislative acts.



- B) Most European countries are concerned about gender inequalities in education.
- C) However, the comprehensiveness of legislative and policy frameworks differs widely.
- D) On the other hand, they can frame gender equality in different ways, focusing on one or more of the various concepts that are associated with this term.

141.

- A) It is wrong, however, to exaggerate the similarity between language and other cognitive skills, because language stands apart in several ways.
- B) For one thing, the use of language is universal—all normally developing children learn to speak at least one language, and many learn more than one.
- C) By contrast, not everyone becomes proficient at complex mathematical reasoning, few people learn to paint well, and many people cannot carry a tune.
- D) Because everyone is capable of learning to speak and understand language, it may seem to be simple.
- E) But just the opposite is true language is one of the most complex of all human cognitive abilities.

142.

- A) Amino acid, which is also known as Leucine, is a fundamental element in the muscle's formation
- B) Animals' protein has a x% of the Leucine, which is higher than those in plants' protein.
- C) Plants' protein
- D) However, there are also some exceptions exist.



READING & WRITING : FILL IN THE BLANKS

1) The study, of 322 overweight 10- to 14-year-olds, found that those whose usual, sedentary video games were partly replaced with active games _____ less weight over six months. For years, experts have worried that the growing amount of time children are spending in front of TVs and computers is helping to feed an _____ of childhood obesity. Progressive enhancement is a design practice based on the idea that instead _____ for the least capable browser, or mangling our code to make a site look the same in every browser, we should provide a core set of functionality and information to all users, and _____ enhance the appearance and behavior of the site for users of more capable browsers. It's a very productive development practice, _____ hours working out how to add drop shadows to the borders of an element in every browser, we simply use the standards-based approach for browsers that support it and don't even attempt to implement it in browsers that don't. After all, the users of older and less capable browsers won't know what they are missing, _____ to progressive enhancement is the belief among developers and clients that websites should look the same in every browser. As a developer, you can simplify your life and dedicate your time to more interesting challenges if you let go of this outdated notion and embrace progressive enhancement.

Option:-

- 1) Lost, gained, loss, increased
- 2) epidemic, popularity, spread, prevalence
- 3) of designing, of devising, of managing, of cultivating
- 4) surprisingly, quantitatively, qualitatively, then progressively



5) instead of spending, rather to waster, instead to spend, rather than treasuring
Answer: gained, epidemic, of designing, then progressively, instead of spending, the biggest challenges

2) There isn't a financial director around who wouldn't like to accelerate cash flow by reducing debtors' days – in other words, get customers to pay up faster. In Europe's top loco quoted companies, nearly one quarter of all invoices are unpaid _____, according to recent research carried out by the ASF organization. This means they are sitting on a total of 274 bn overdue debt. Most of this is caused by poor collection practices. According to Jan Porter, AST's Managing Director, " You can set up all the systems you want, you can insist on watertight contracts and payment terms, the government can even introduce late payment legislation, but there are always come debtors who _____" Once a payment is overdue, your first step is to talk to your debtor. You should let them know the payment is late and try to find out if there is a dispute about the work, or if your debtor has financial problems. _____, , but Tim Vainio, a chartered accountant, believes that too many companies are afraid of losing a relationship, and that, _____ the focus should be on recovering as much money as possible, rather than on preserving a relationship.

Option:-

- 1) at any point, time, now and again, on time, from time to time
- 2) fail to pay on time, escape reminders, disappoint the payment, become creditors
- 3) All companies do this, it seems nervous, this is plain, this is OK
- 4) before undertaking any action, after all measures, the last resort, even at this early stage



Answer: at any point in time, fail to pay on time, this is ok, before undertaking any action

- 3) There were twenty-six freshmen _____ in English at Beijing Language Institute in the class of 1983. I was assigned to Group Two with another eleven boy and girls who had _____ big cities in China. I was told that language study required smallness so that we would each get more attention from the skillful teachers. The better the school, the smaller the class. I realized that my classmates were ready all _____ in English, simple sentences tossed out to each other in their red-faced introductions and carefree chatting. Their intonations were curving and dramatic and their pronunciation refined and accurate. But as I stretched to catch the drips and drops of their humming dialogue, I couldn't _____ it all, only that it was English. Those words now flying before me sounded a little familiar. I had read them and tried to speak them, but I had never heard them _____ back to me in such a speedy, fluent manner. My big plan of _____ the city folks were thawing before my eyes.

Option:-

- 1) Getting, majoring, interesting, concentrating
- 2) come at, come along, come from, come across
- 3) talking, tying, drinking, looking at
- 4) suspect, understand, wonder, convince
- 5) speak, are speaking, spoke, spoken
- 6) cheering, beating, relying, staying

Answer: majoring, come from, talking, understand, spoken, beating

- 4) In these distant times, the sun was seen to make its daily _____ across the sky. At night the moon appeared. Every new night the moon waxed or waned a little and, on a few nights, it did not appear at all. At night the great dome



of the heavens was dotted with tiny specks of light. They _____ know as the stars. It was thought that every star in the heavens had its own purpose and that the _____ of the universe could be discovered by making a study of them. It was well known that there were wandering stars, they appeared in different nightly positions against their neighbors and they became known as planets. It took centuries, in fact, it took millennia, for man to _____ the true nature of these wandering stars and to evolve a model of the world to accommodate them and to predict their positions in the sky.

Option:-

- 1) journey, voyage, travel, flight
- 2) had become, has become, is becoming, became
- 3) prediction, prophecy, secrets, system
- 4) distinguish, determine, distribute, dedicate

Answer: journey, became, secrets, determine

- 5) Top US business schools are recruiting younger, less experienced candidates in an effort to boost applications and head off competition for the best students from other graduate programs such as law and public policy. In an attempt to _____ new students, leading business schools – including Harvard, Stanford, the University of Chicago and Wharton – have moved away from the unofficial admissions _____ of four years' work experience and _____ have set their sights on recent college graduates and so-called "early career*" _____ with only a couple years of work under their belt.

Option:-

1. Experience, expertise lure
2. Life, leading, prerequisite
3. develop, belt, instead
4. heard of, lure, professionals



Answer: lure, prerequisite, instead, professionals

- 6) In animals, movement is coordinated by a cluster of neurons in the spinal cord called the central pattern _____(CPG). This produces signals that drive muscles to _____ rhythmically in a way that produces running or walking, depending on the pattern of _____. A simple signal from the brain instructs the CPG to switch between different _____, such as going from a standstill to walking.

Option:-

- 1) Receptor, generator, genitors, generates
- 2) act, release, contract, construct
- 3) beats, rhythm, pauses, pulses
- 4) modes, elements, moods, moods elects

Answer: generator, contract, pulses, modes

- 7) Scientists make observations, have assumptions and do _____. After these have been done, they get their _____. Then there is a lot of _____ from scientists. The scientists around the world have a _____ of world.

Option:-

- 1) publication, experiment, assumption, research
- 2) results, research, production, principles
- 3) dates, data, collection, discoveries
- 4) potential, picture, scientific, potentially

Answer: experiment, results, data, picture

- 8) Once an organization has its product to sell, it must then _____ the appropriate price to sell it at. The price is set by balancing many factors including supply-and-demand, cost, desired profit, competition, perceived value, and market behavior. Ultimately, the final price is determined by what the market is willing to _____ for the product. Pricing theory can be quite



complex because so many _____ influence what the purchaser _____ is a fair value.

Option:-

- 1) Detect, determine, deleted, dispose
- 2) exchange, change, promote, confirm
- 3) reasons, features, factors, messages
- 4) interact, debates, present, decides

Answer: determine, exchange, factors, decides

- 9) The writer- or, for that matter, the speaker conceives his thought 'whole', as a unity, but must express it in a line of words; the reader- or listener- must take this line of symbols and from it _____ the original wholeness of thought. There is _____ difficulty in conversation, because the listener receives innumerable cues from the physical expressions of the speaker; there is a dialogue, and the listener can _____ in at any time. The advantage of group discussion is that people can overcome linear sequence of words by _____ on ideas from different directions; which makes for wholeness of thought. But the reader is confronted by line upon line of printed symbols, without benefits of physical _____ and emphasis or the possibility of dialogue or discussion.

Option:-

- 1) flirted, reconstruct, engage, rename
- 2) litter, more, few, little
- 3) cut, some, give, coming
- 4) changing, sharing, conversing, converting
- 5) tone, appearance, force, mood

Answer: reconstruct, little, cut, conversing, tone



10) Bhutan is the last standing Buddhist Kingdom in the World and, until recently, has _____ much of their culture since the 17th century by avoiding globalization and staying isolated from the world. Internet, television, and western dress were banned from the country up until ten years ago. But over the past ten years globalization has begun to change in Bhutan, but things remain _____ balanced. Bhutan is the only country in the world that has a 'GNH.' You may think GNH is just another _____ based term with no real-life application, but it refers to "Gross National Happiness." The process of measuring GNH began when Bhutan opened up to globalization. It measures people's quality of life, and makes sure that "material and spiritual development happen together." Bhutan has done an amazing job of finding this balance. Bhutan has continually been (ranked) as the happiest country in all of Asia, and the eighth Happiest Country in the world according to Business Week. In 2007, Bhutan had the second fastest growing GDP in the world, at the same time as _____ their environment and cultural identity. Bhutan is the only Buddhist Kingdom in the world; Mahayana Buddhism is the official religion of Bhutan. Over two thirds of the people are Buddhist, and Buddhism is supported by the government both politically and economically. The government gives _____ to Buddhist monasteries, shrines, monks and other Buddhist programs.

Option:-

- 1) prefer, preserved, preserves, selected
- 2) perfectly, greatly, fully, very
- 3) statistically, statistical, scientifically
- 4) keeping, balancing, marinating, maintaining
- 5) subsidy, special, subsidies, sanctity

Answer: preserved, perfectly, statistically, maintaining, subsidies



11) Descendants of the Maya living in Mexico still sometimes refer to themselves as 'the corn people'. The phrase is not intended as metaphor. Rather, it's mean to _____ their abiding dependence on this miraculous grass, the _____ of their diet for almost 9000 years. [For an American like me, growing up linked to a very different food chain, yet one that is also rooted in corn, not to think of himself as a corn person suggests either a failure of imagination or a triumph of capitalism. Or perhaps a little of both. For the great edifice of variety and choice that is an American supermarket rests on a remarkably narrow biological foundation: corn. It's not merely the feed that the steers and the chickens and the pigs and the turkeys ate; it's not just the source of the flour and the oil and the leavenings, the glycerides and coloring in the processed foods; it's not just sweetening the soft drinks or lending a shine to the magazine cover over by the checkout. fiberglass and adhesives out of which the building itself has been built—is in no small measure a _____ of corn.

Option:-

- 1) Remember, renown, knowledge, acknowledge
- 2) fix, staple, range, variety
- 3) display, show, manifestation, exhibition

Answer: acknowledge, staple, manifestation

12) The few people who live in Alaska's Aleutian Islands have long been accustomed to _____. They have been part of local consciousness since a Japanese whaling _____ ran aground near the western end of the 1,100-mile (1,800-km) volcanic _____ in 1780, inadvertently naming what is now Rat Island when the ship's _____ scurried ashore and made itself at home. Since then, there have been at least 190 shipwrecks in the islands.

Option:-



- 1) Ships, accidents, boost, shipwrecks
- 2) sail, ship, shipped, boat
- 3) islet, archaeology, archipelago, island
- 4) infestation, infest, infested, manifestation

Answer: shipwrecks, ship, archipelago, infestation

- 13) A DOG may be man's best friend. But man is not always a dog. Over the centuries _____ breeding has pulled at the canine body shape to produce what is often a grotesque distortion of the underlying wolf. Indeed, some of these distortions are, when found in people, regarded as _____. Dog breeding does, though, offer a chance to those who would like to understand how body shape is controlled. The _____ of pedigree pooches is well recorded, their generation time is short and their _____ size reasonably large, so there is plenty of material to work with. _____, breeds are, by definition, inbred, and this simplifies genetic analysis. Those such as Elaine Ostrander, of America's National Human Genome Research Institute, who wish to identify the genetic basis of the features of particular pedigrees thus have an ideal _____ animal.

Option:-

- 1) Selected, excessive, selective, excellent
- 2) epidemic, pathologies, medication, diseases
- 3) ancestry, antecedents, descent, ancestors
- 4) lit, littering, litters, litter
- 5) hence, so, moreover, however
- 6) reprehensive, general, experimental, experiments

Answer: selective, pathologies, ancestry, litter, moreover, experimental

- 14) Research has suggested that major stressors in our lives are life, _____, for example, moving house, marriage or relationship breakdown. Work-related



factors, _____ unemployment and boredom, are also common _____ of stress. Differences in personality may also _____ a part.

Option:-

- 1) factors, changing, changes, chances
- 2) including, following, increasing, influencing
- 3) cause, causes, facts, case
- 4) spend, present, analyses, play

Answer: changes, including, causes, play

- 15) Higher education qualifications provide a _____ advantage in the labor market. Higher education graduates are less likely to be unemployed and tend to have higher _____ than those without such qualifications. Having a highly _____ workforce can also lead to increased productivity and innovation and _____ Australia more competitive in the global market.

Option:-

- 1) substance, substantial, subsequent, surpass
- 2) expenses, outcome, incomes, instill
- 3) educated, informed, planned, expert
- 4) take, turn, make, help

Answer: substantial, incomes, educated, make

- 16) The practice of giving storms personal names appears to have _____ with Clement Wragge, an Australian meteorologist who in the 1890s entertained himself by naming storms after women, mythical _____, and politicians that he didn't like. The modern system of using personal names developed during World War II, when meteorologists began using women's names – often those of wives or girlfriends – instead of _____ designations based on latitude and longitude. Short and quickly understood, names were easier to _____ over the radio and easier to keep straight if there was more than one storm in a



given area. The system was _____ in 1953 when the National Weather Service put together an alphabetical list of female names to be used for storms in the Atlantic basin. Male names were added to the list in 1979 when women's groups pointed out the sexism of using only female names.

Options:

- 1) originated, laminated, contaminated, vaccinated
- 2) figures, figuration, figurative, configures
- 3) worrisome, cumbersome, awesome, wholesome
- 4) transmit, transform, transfuse, transect
- 5) rationalized, decentralized, formalized, immortalized

Answer: originated, figures, cumbersome, transmit, formalized

- 17) Don't expect a straightforward answer from Chanan Tigay about the _____ or even the existence of what was promoted as the earliest version of the fifth and final book of the Jewish Torah, known to Christians as the Book of Deuteronomy in the Old Testament. As an author who spent years trying to _____ a juicy mystery and get it down on paper, Tigay wants you to read his book, "The Lost Book of Moses: The Hunt for the World's Oldest Bible," to find the answer. But at a talk on Wednesday, the writer, journalist, and fellow offered listeners an enticing peek, describing how he landed on the story of the mysterious manuscript and about his years trying to track _____ the document. From the author's description, it was a wild, Indiana Jones-type ride that included a competition to find the relic, false starts, dead ends, trips to faraway places, and an ultimate breakthrough close to home.

Options:

- 1) authenticity, area, imagination, scale
- 2) unravel, build, cross, envisage



3) down, against, out, of

Answer: authenticity, unravel, down

18) People are spending twice as much time online compared to 10 years ago, fueled by increasing use of tablets and smartphones. The biggest increase has been _____ young adults, with time spent online almost tripling from 10 hours and 24 minutes each week in 2005 to 27 hours and 36 minutes in 2014. In total, the average adult spends more than 20 hours online a week, which includes time spent on the internet at work. _____ the average person spends 2.5 hours every week 'online while on the move' - away from their home, work or place of study. This is a five-fold _____ from 2005, when the figure was just 30 minutes. Overall, the proportion of adults using the internet has risen by half - from six in ten in 2005 to almost nine in ten today, _____ to Ofcom's Media Use and Attitudes 2015 report, which questioned 1,890 adults aged 16 and over about their internet consumption habits.

Options:

- 1) within, along, between, among
- 2) However, Despite, Unless, Meanwhile
- 3) increase, magnitude, grid, space
- 4) according to, due to, controlled by, except for

Answer: among, Meanwhile, increase, according to

19) Umami was first identified in Japan, in 1908, when Dr. Kikunae Ikeda concluded that Kombu, a type of edible seaweed, had a different taste than most foods. He conducted _____ that found that the high concentration of glutamate in Kombu was what made it so tasty. From there, he crystallized monosodium



glutamate (MSG), the seasoning that would become _____ the world over. Decades later Umami became scientifically defined as one of the five individual tastes sensed by receptors on the _____. Then in 1996, a team of University of Miami researchers studying taste perception made another breakthrough. They discovered separate taste receptor cells in the tongue for detecting Umami. Before then, the concept was uncharted. 'Up until our research, the _____ wisdom in the scientific community was that Umami was not a separate sense. It was just a combination of the other four qualities (salty, sweet, bitter, sour)', explained Dr. Stephen Roper, the University of Miami physiology and biophysics professor who helped zero in on the taste along with Nirupa Chaudhari, the team's lead researcher.

Options:

- 1) attempts, experiments, contests, experiences
- 2) exported, exclusive, popular, spread
- 3) jaws, mouth, tongue, fingers
- 4) erroneous, predominant, insignificant, important

Answer: experiments, popular, tongue, predominant

- 20) A mini helicopter modelled on flying tree seeds could soon be flying overhead. Evan Ulrich and colleagues at the University of Maryland in College Park _____ the biological world for inspiration to build a scaled-down helicopter that could mimic the properties of full-size aircraft. The complex _____ of full-size helicopters gets less efficient when shrunk, meaning that standard mini helicopters expend most of their power simply fighting to stay stable in the air. The researchers realized that a simpler aircraft designed to stay stable passively would use much less power and reduce manufacturing costs to boot. It turns out that nature _____ them to it. The seeds of trees such as



the maple have a single-blade structure that _____ them to fly far away and drift safely to the ground. These seeds, known as samaras, need no engine to _____ through the air, thanks to a process called autorotation. By analyzing the behavior of the samara with high-speed cameras, Ulrich and his team were able to copy its design.

Options:

- 1) turned to, turned for, turned in, turned off
- 2) overhaul, gauge, imagination, design
- 3) has beaten, was beaten, had beaten, beaten
- 4) had allowed, allowed, allows, allowing
- 5) spin, fluctuate, drift, bob

Answer: turned to, design, had beaten, allows, spin

- 21) To better understand selfies and how people form their identities online, the researchers combed through 2.5 million selfie posts _____ Instagram to determine what kinds of identity statements people make by taking and sharing the photos. Nearly 52 percent of all selfies _____ the appearance category: pictures of people showing off their make-up, clothes, lips, etc. Pics about looks were two times more popular than the other 14 categories _____. _____ appearances, social selfies with friends, loved ones, and pets were the most common (14 percent). Then _____ ethnicity pics (13 percent), travel (7 percent), and health and fitness (5 percent). The researchers noted that the prevalence of ethnicity selfies (selfies about a person's ethnicity, nationality or country of origin) is an indication that people are proud of their backgrounds. They also found that most selfies are solo pictures, _____ than taken with a group. _____, an overwhelming 57 percent of selfies on Instagram were posted by the 18-35-year-old crowd,



something the researchers say isn't too surprising _____ the demographics of the social media platform. The under-18 age group posted about 30 percent of selfies.

Options:

- 1) of, to, above, on
- 2) summed up, broke down, fell into, focused on
- 3) constrained, confined, combined, unconfined
- 4) Regarding, Unless, After, Against
- 5) let, were, came, did
- 6) less, other, rather, most
- 7) Along with, Although, Overall, Moreover
- 8) claiming, supposing, considering, imagining

Answer: on, fell into, combined, After, came, rather, Overall, considering

22) _____ the past two decades around a third of the world's mangrove swamps have been _____ for human use, with many turned into valuable shrimp farms. In 2007 an economic study of such shrimp farms in Thailand showed that the commercial profits per hectare were \$9,632. If that were the only _____, conversion would seem an excellent idea. However, proper _____ shows that for each hectare government subsidies formed \$8,412 of this figure and there were costs, too: \$1,000 for pollution and \$12,392 for losses to ecosystem services. These _____ damage to the supply of foods and medicines that people had taken from the forest, the loss of habitats for fish, and less buffering against storms. And because a given shrimp farm only stays _____ for three or four years, there was the additional cost of restoring them afterwards.

Options:



- 1) By, With, To, Over
- 2) deserved, inserted, conserved, converted
- 3) index, element, choice, factor
- 4) accounting, percentage, aggregation, division
- 5) comprised, uneven, neglected, augmented
- 6) productive, interactive, distinctive, collective

Answer: Over, converted, factor, accounting, comprised, productive

23) Green spaces contribute significantly to a _____ in soil and aerial temperatures during spells of hot weather, so contributing to human wellbeing. In the garden _____, there is, however, little information as to what extent various types of plants _____ in their cooling potential and how certain planting combinations may maximize cooling under a scenario of _____ rainfall and minimal water inputs.

Options:

- 1) genesis, conclusion, purification, reduction
- 2) extent, level, context, volume
- 3) confer, differ, coincide, defer
- 4) total, low, parallel, partial

Answer: reduction, context, differ, low

24) She transformed beauty into big business by cultivating classy sales methods and giving away samples. Leonard Lauder, chief executive of the company his mother founded, says she always thought she 'was growing a nice little business.' And that it is. A little business that _____ 45% of the cosmetics



market in U.S. department stores. A little business that sells in 118 countries and last year grew to be \$3.6 billion big in sales. The Lauder family's shares are worth more than \$6 billion. But early on, there wasn't a burgeoning business; there weren't houses in New York, Palm Beach, or the south of France. It is said that at one point there was one person to answer the telephones who _____ her voice to become the shipping or billing department as needed. You more or less know the Estee Lauder story because it's a chapter from the book of American business folklore. In short, Josephine Esther Mentzer, daughter of immigrants, lived above her father's hardware store in Corona, a section of Queens in New York City. She started her _____ by selling skin creams concocted by her uncle, a chemist, in beauty shops, beach clubs and resorts. No doubt the potions were good - Estee Lauder was a quality fanatic - but the sales lady was better. Much better. And she simply outworked everyone else in the cosmetics industry. She _____ the bosses of New York City department stores until she got some counter space at Saks Fifth Avenue in 1948. And once in that space, she utilized a personal selling approach that proved as _____ as the promise of her skin regimens and perfumes.

Options:

- 1) has, controls, makes, maintains
- 2) switched, changed, raised, used
- 3) emphasis, institute, companion, enterprise
- 4) stated, bridged, stalked, heaved
- 5) potent, collective, potential, expensive

Answer: controls, changed, enterprise, stalked, potent

- 25) From the earliest civilisations, plants and animals have been portrayed as a means of understanding and recording the potential uses, such as their



economic and healing properties. From the first illustrated _____ of medicinal plants, De Materia Medica by Dioscorides, in the first century through to the late fourteenth century the illustration of plants and animals changed very little. Woodcuts in instructional manuals and herbals were often repeatedly copied over the centuries, resulting in a loss of definition and accuracy so that they became little more than stylized decoration. With the growing _____ of copperplate engravings, the traditional use of woodcuts declined and the representation of plants and animals became more accurate. Then, with the _____ of artists such as Albrecht Durer and Leonardo Da Vinci, naturalists such as Otto Brunfels, Leonhard Fuchs in botany and Conrad Gesner and Ulisse Aldrovandi in zoology, nature began to be depicted in a more realistic style. Individual living plants or animals _____ directly and their likeness rendered onto paper or vellum.

Options:

- 1) catalogue, calculation, formation, figuration
- 2) popularity, expectation, singularity, resilience
- 3) emergence, descent, havoc, omniscience
- 4) observed, observe, had observed, were observed

Answer: catalogue, popularity, emergence, were observed

- 26) Timing is important for revision. Have you noticed that during the school day you get times when you just don't care any longer? I don't mean the lessons you don't like, but the ones you usually find OK, but on some occasions, you just can't be bothered with it. You _____ have other things on your mind, be tired, restless or looking forward to what comes next. Whatever the reason, that particular lesson doesn't get 100 percent _____ from you. The same is true of revision. Your mental and physical _____ are important. If you try to



revise when you are tired or totally occupied with something else, your revision will be inefficient and just about worthless. If you approach it feeling fresh, alert and happy, it will be so much easier, and you will learn more, faster. However, if you make no plans and just slip in a little bit of revision when you feel like it, you probably won't do much revision! You need a revision timetable, so you don't keep _____.

Options:

- 1) may, never, do, hardly
- 2) effort, afford, affect, effect
- 3) shortcomings, concerns, attitudes, appearances
- 4) stopping, putting it off, pushing, putting out

Answer: may, effort, attitudes, putting it off

- 27) The Petrified Forest is home to some of the most impressive fossils ever found and more are being discovered each year as continuing erosion is _____ new evidence. Fossils found here show the Forest was once a tropical region, _____ with towering trees and extraordinary creatures. More than 150 different species of fossilized plants have been discovered by paleontologists and evidence _____ ancient native people who inhabited this region about 10,000 years ago has been _____ by archeologists.

Options:

- 1) exposing, expanding, explaining, expecting
- 2) connected, filled, restored, treated
- 3) indicating, discharging, thinking, assume
- 4) deducted, rejected, confirmed, predicted

Answer: exposing, filled, indicating, confirmed

- 28) The exponential growth of the internet was _____, in the 1990s, as revolutionizing the production and _____ of information. Some people saw



the internet as a means of _____ access to knowledge. For people _____ with African development, it seemed to offer the possibility of _____ over the technology gap that _____ Africa from advanced industrialized countries.

Options:

- 1) created, innovated, utilized, heralded
- 2) dissemination, broadcast, sending, process
- 3) democratizing, developing, accumulating, stabilizing
- 4) informed, confirmed, concerned, correlated
- 5) copying, leapfrogging, heading, sweeping
- 6) separates, identifies, signifies, defines

Answer: heralded, dissemination, democratizing, concerned, leapfrogging, separates

- 29) Seminars are not designed to be mini-lectures. Their educational _____ is to provide an opportunity for you to discuss interesting and/or difficult aspects of the course. This is founded on the _____ that it is only by actively trying to use the knowledge that you have acquired from lectures and texts that you can achieve an adequate understanding of the subject. If you do not understand a point, it is highly _____ that you will be the only person in the group in that position; you will invariably be undertaking a _____ for the entire group if you come to the seminar equipped with questions on matters which you feel you did not fully understand. The seminar is to _____ discussion.

Options:

- 1) result, team, role, regulation
- 2) awareness, information, consolation, assumption
- 3) similarly, likely, possible, unlikely
- 4) service, study, reservation, education



5) stir, provoke, rinse, commit

Answer: role, assumption, unlikely, service, provoke

30) Wind is air moving around. Some winds can move _____ fast as a racing car, over 100 miles an _____. Winds can travel around the world. Wind can make you feel cold because you lose heat from your body _____ when it is windy. Weather forecasters need to _____ the speed and direction of the wind. The strength of wind is measured using the Beaufort scale from wind force when there is no wind, to wind force 12 which can damage houses and buildings and is called hurricane force.

Options:

- 1) to, for, in, as
- 2) hour, second, minute, micro second
- 3) faster, slower, higher, lower
- 4) overshoot, know, check, fix

Answer: as, hour, faster, know

31) Recently, research into embryonic development has given us an even better insight into how major structural changes might occur in a given population of organisms. We now understand that there are two major types of genes: developmental and "housekeeping" genes. Developmental genes are those that are expressed during embryonic development, and their proteins _____ the symmetry, skeletal development, organ placement, and overall form of the developing animal. _____, "housekeeping" genes are expressed during the animal's daily life to generate proteins which keep the cells, tissues, and organs in the body functioning properly. _____ you might suspect, mutations in developmental genes can have radical consequences for body form and function, whereas mutations in "housekeeping" genes tend to _____ the health and reproductive success of the post-embryonic animal.



Options:

- 1) push, control, hold, elevate
- 2) Correspondingly, Inclusively, Conversely, In contrast
- 3) For, As, With, Within
- 4) affect, effect, interrupt, defect

Answer: control, In contrast, As, affect

32) Most important of all is the fact that for each new ballet-pantomime created at the Paris Opera during the July Monarchy, a new score was produced. The reason for this is simple: these ballet pantomimes told stories – elaborate ones – and music was considered an indispensable tool in getting them across to the audience. _____, music had to be newly created to fit each story. Music tailor-made for each new ballet-pantomime, however, was only one weapon in the Opera's explanatory arsenal. _____ was the ballet-pantomime libretto, a printed booklet of fifteen to forty pages in length, which was sold in the Operas lobby (like the opera libretto), and which laid out the plot in painstaking detail, scene by scene. Critics also took it upon themselves to recount the plots (of both ballet-pantomimes and operas) in their _____ of premieres. So did the publishers of souvenir albums, which also featured pictures of famous _____ and of scenes from favorite ballet-pantomimes and operas.

Options:

- 1) However, Nevertheless, In fact, Therefore
- 2) Another, Others, It, Also
- 3) views, reviews, overviews, supervisions
- 4) teachers, students, performers, drivers

Answer: Therefore, Another, reviews, performers



33) What is the significance of instinct in business? Does a reliable gut feeling separate winners from losers? And is it the most valuable emotional tool any entrepreneur can possess? My _____ of successful company owners lead me to believe that a highly analytical attitude can be a drawback. At critical junctures in commercial life, risk-taking is more an _____ of faith than a carefully balanced choice. Frequently, such moments require _____ and absolute conviction above all else. There is simply no time to wait for all the facts, or room for doubt. A computer program cannot tell you how to invent and launch a new product. That _____ involves too many unknowns, too much luck – and too much sheer intuition, rather than the infallible _____ that machines deliver so well. As Chekhov said: "An artist's flair is sometimes worth a scientist's brains" – entrepreneurs need right-brain thinking. When I have been considering whether to buy a company and what price to offer, I have been _____ too often by reams of due diligence from the accountants and lawyers. Usually it pays to stand back from such mountains of grey data and weigh up the really important issues – and decide how you feel about the opportunity.

Options:

- 1) ideas, thoughts, observations, researches
- 2) act, importance, art, emphasis
- 3) decisiveness, patience, confidence, courage
- 4) journey, mindset, prototype, path
- 5) rationale, rule, principle, logic
- 6) blinded, attracted, allured, deceived

Answer: observations, act, decisiveness, journey, logic, blinded

34) People modify cultural ideas in their minds, and sometimes they pass on the modified versions. Inevitably, there are unintentional modifications as well,



partly because of straightforward error, and partly because inexplicit ideas are hard to _____ accurately: there is no way to download them directly from one brain to another like computer programs. _____ native speakers of a language will not give identical definitions of every word. So it can be only rarely, if _____, that two people hold precisely the same cultural idea in their minds. That is why, when the founder of a philosophical movement or a religion dies, or _____, schisms typically happen. The movements most devoted followers are often shocked to _____ that they disagree about what its doctrines—really are.

Options:

- 1) convey, pass, deliver, transmit
- 2) Even, Although, If, Ever
- 3) ever, that, this, does
- 4) even before, even later, if not, for example
- 5) indicate, discover, deny, agree

Answer: convey, Even, ever, even before, discover

- 35) Of the more than 1,000 bat species worldwide, 22 are _____ to North America. And while there are no pollinator bats in our area, gardeners should _____ those that do live here, because they're insectivorous. These bats _____ moths, beetles and mosquitoes, and can eat up to 500 mosquitosized insects per hour. They also protect gardens and crops from such _____ as cucumber beetles, cutworms and leafhoppers.

Options:

- 1) local, national, native, residential
- 2) suppose, champion, breed, fight
- 3) spend, consume, provide, deplete
- 4) species, pests, objects, animals



Answer: native, champion, consume, pests

36) Having tracked down research that is _____ to your area of interest, the next task is to actually make sense of that research. This section is intended to show you how to be critical of the research you _____ and how to check that the _____ is credible and represented appropriately. Unfortunately this means discussing the ways in which research findings may be misrepresented.

Options:

- 1) relevant, important, useful, referred
- 2) are monitoring, are finding, are reviewing, are discovering
- 3) support, invention, statement, evidence

Answer: relevant, are reviewing, evidence

37) Rudman looks at how a poor understanding of Maths has led historians to false conclusions about the Mathematical sophistication of early societies. Rudman's final observation-that ancient Greece _____ unrivaled progress in the subject while _____ to teach it at school-leads to a _____ punchline : Mathematics could be better learnt after we _____ school.

Options:

- 1) marked, enjoyed, reviewed, expected
- 2) waiting, hesitating, hoping, failing
- 3) radical, rational, radish, radius
- 4) enter, graduate, leave, go

Answer: enjoyed, failing, radical, leave

38) With the increase in women's _____ in the labour force, many mothers have less time _____ to undertake domestic activities. At the same time, there has been increasing _____ that the father's role and _____ with a child is important. A father can have many _____ in the family, ranging from income provider to teacher, carer, playmate and role model. Therefore, balancing



paid work and family responsibilities can be an important issue for both fathers and mothers in families.

Options:

- 1) anticipation, substitution, participation, definition
- 2) available, related, consumable, useful
- 3) recognition, discrimination, resolution, recreation
- 4) scholarship, relationship, worship, employment
- 5) members, players, workers, roles, recognition,

Answer: participation, available, relationship, roles

39) Music is an important part of our lives. We connect and interact with it daily and use it as a way of projecting our self-identities to the people around us. The music we enjoy - whether it's country or classical, rock n' roll or rap - _____ who we are. But where did music, at its core, first come from? It's a puzzling question that may not have a definitive answer. One _____ researcher, however, has proposed that the key to understanding the origin of music is nestled snugly in the loving bond between mother and child. In a lecture at the University of Melbourne, Richard Parncutt, an Australian-born professor of systematic musicology, endorsed the idea that music originally spawned from 'motherese' -- the playful voices mothers _____ when speaking to infants and toddlers. As the theory goes, increased human brain sizes caused by evolutionary changes occurring between one and 2,000,000 years ago resulted in earlier births, more fragile infants and a _____ need for stronger relationships between mothers and their newborn babies. According to Parncutt, who is based at the University of Graz in Austria, 'motherese' arose as a way to strengthen this maternal bond and to help _____ an infant's survival.

Options:



- 1) means, convinces, shows, reflects
- 2) freelance, best, unanimous, leading
- 3) adapt, adopt, sing, forge
- 4) clinical, chronic, critical, fallow
- 5) confirm, improve, ensure, enquire

Answer: reflects, leading, adopt, critical, ensure

40) Everybody needs fresh water. _____ water people, animals and plants cannot live. Although a few plants and animals can make do with saltwater, all humans need a constant supply of fresh water if they are to stay _____ and healthy. Of the total supply of water on the Earth, only about 3 percent of it is fresh, and most of that is stored as ice and snow at the poles, or is so _____ under the surface of the Earth that we cannot get to it. Despite so much of the water being out of reach, we still have a million cubic miles of it that we _____ use. That's about 4,300,000 cubic kilometers of fresh water to share out between most of the plants, animals and people on the planet.

Options:

- 1) Without, Despite, As, With
- 2) excited, here, up, fit
- 3) wide, hard, deep, common
- 4) can, won't, don't, cannot

Answer: Without, fit, deep, can

41) Colorful poison frogs in the Amazon owe their great _____ to ancestors that leapt into the region from the Andes Mountains several times during the last 10 million years, a new study from The University of Texas at Austin suggests. This is the first study to show that the Andes have been a _____ of diversity for the Amazon basin, one of the largest _____ of biological diversity on Earth. The finding runs _____ to the _____ that Amazonian diversity is the _____



of evolution only within the tropical forest itself. " Basically, the Amazon basin is 'melting pot' for South American frogs," says graduate student Juan Santos, lead author of the study. "Poison frogs there have come from multiple places of _____, notably the Andes Mountains, over many millions of years. We have shown that you cannot understand Amazonian biodiversity by looking only in the basin. Adjacent regions have played a major role."

Options:

- 1) division, diversity, diversification, diversify
- 2) important, major source, essential, special
- 3) pool, reservoirs, tank, territories
- 4) along, counter, through, thoroughly
- 5) myth, idea, situation, condition
- 6) link, result, trigger, usher
- 7) living, life, origin, species

Answer: diversity, major source, reservoirs, counter, idea, result, origin,

- 42) Traditionally, mass-communications research has conceptualized the process of communication in terms of a circulation circuit or loop. This _____ has been criticized for its linearity -- sender/message/receiver -- for its concentration on the level of message exchange and for the absence of a structured conception of the different moments as a complex structure of relations. But it is also _____ to think of this process in terms of a structure produced and sustained through the articulation of linked _____ distinctive moments production, circulation, distribution/consumption, reproduction. This would be to think of the _____ as a ' complex structure in dominance' , sustained through the articulation of connected practices, each of which, however, retains its distinctiveness and has its own _____ modality, its own forms and conditions of existence.



Options:

- 1) medal, modal, model, moral
- 2) useful, unbelievable, impossible, meaningless
- 3) if, and, but, or
- 4) works, practice, production, process
- 5) general, real, common, specific

Answer: model, useful, but, process, specific

43) The APS supports the development of an Australian curriculum for psychological science. The APS Division of Psychological Research, Education and Training, in _____ with teacher and curriculum representatives from every State and Territory in Australia, _____ a proposed framework for senior secondary school studies in psychological science. This framework _____ the current senior science curricula that were developed and published by the Australian Curriculum, Assessment and Reporting Authority. The APS hopes that this framework will _____ a dialogue between educators and their local curriculum authority, with the aim of working towards a more _____ approach to the teaching of psychological science at secondary school level and optimizing the preparation for students going on to undergraduate psychology studies at university, as well as the effective use of psychological principles in everyday life.

Options:

- 1) confidence, consultation, consolation, condolence
- 2) has been developed, has developed, had been developing, have developed
- 3) has modelled on, to model on, is modelled on, modelled on
- 4) fertilize, facilitate, fascinate, fabricate
- 5) conjunctive, constituent, consistent, consequent

Answer: consultation, has developed, is modelled on, facilitate, consistent



44) A good story may be given a bad title by its author, and so started toward failure. Novices are peculiarly _____ to this fault, usually through _____ themselves to be too easily satisfied. They go to _____ pains to make the story itself fresh and individual, and then cap it with a _____ phrase that is worse than no title at all. A good title is _____, specific, attractive, new, and short. A title is apt if it is an outgrowth of the plot—a text, as I have said. It stands definitely for that particular story, and gives a suggestion of what is to come—but only a suggestion, lest it should anticipate the denouement and so _____ the curiosity of the reader too soon.

Options:

- 1) able, responsible, liable, possible
- 2) disabling, asking, persuading, allowing
- 3) stagnant, faint, vague, infinite
- 4) misleading, invisible, distinctive, commonplace
- 5) void, default, fussy, apt
- 6) intensify, multiply, satisfy, notify

Answer: liable, allowing, infinite, commonplace, apt, satisfy

45) The purpose of this paper is to consider the claim, often made, that computer simulation exercises provide an excellent source of speaking practice. In so doing I shall first consider the properties of computer simulations from a theoretical _____, then describe the experience of _____ a particular simulation with a general EFL class. On the basis of this experience, and of some very straightforward pedagogical considerations, I shall argue that the claim is justified, _____ to a very important caveat: computer simulations can form the basis of excellent speaking exercises, provided you do not expect the computer to do all the work. Put in another way, many computer



simulations only _____ their full potential as language exercises if they are _____ into a larger, planned, teacher-managed activity.

Options:

- 1) shape or form, state of mind, point of view, status quo
- 2) used, being used, using, having been used
- 3) subject, reject, expect, inject
- 4) contain, attain, retain, remain
- 5) separated, included, participated, integrated

Answer: point of view, using, subject, attain, integrated

46) In our studies, those people on a high-protein diet lost the same amount of weight as those on a higher-carbohydrate diet, since the two diets _____ an equal amount of kilojoules and the same amount of fat. However, body composition (that is, the ratio of fat to muscle) showed greater improvement among those people on the higher-protein diet. When the _____ in other studies were allowed to eat until they were no longer hungry, those on the higher protein diet lost more weight than those on the higher carbohydrate diet, even after more than a year. The reduction in hunger and the beneficial effect on muscle provided by the higher-protein diet is mostly related to its protein content, while the reduced triglyceride levels and enhanced fat-loss seem to be related to its lower amounts of carbohydrate. The diet is healthy because its protein comes from lean red meat, fish, chicken and low-fat dairy products, all of which _____ good nutrition. A high-protein diet in which the protein comes from protein powders and supplements is unlikely to be healthy, unless the supplements are _____ with vitamins and minerals.

Options:

- 1) suffered, done, offered, created
- 2) researchers, audience, scientists, participants



- 3) provide, release, consisting, provides
- 4) supplied, fortified, interacted, teemed

Answer: offered, participants, provide, fortified

47) That Sigmund Freud became a major intellectual presence in twentieth-century culture is not in doubt. _____ is there any doubt that at all times there was both fervent enthusiasm over and bitter hostility to his ideas and influence. But the exact means _____ Freud became, despite this hostility, a master of intellectual life, on a par, already in the 1920s, with Karl Marx, Albert Einstein, Marie Curie and Bertrand Russell, has not been sufficiently explored. Strikingly, Freud emerged as a twentieth century icon without the endorsement and support of an institution or a profession (in contrast to Einstein, Curie and Russell). Where are we to look for the details of this story of an emergent - and new - figure of immense cultural authority? One of the principal aims of this book is to show how this happened in one local, parochial yet privileged, site - Cambridge, then as now a university town stranded in the English Fens with a relatively small _____ population.

Options:

- 1) Otherwise, Nor, Yet, Nevertheless
- 2) by which, in which, of which, on which
- 3) fluctuating, fluctuate, fluctuated, fluctuation

Answer: Nor, by which, fluctuating

48) Populations can change through three processes: fertility, mortality and migration. Fertility _____ the number of children that women have and differs from fecundity (a woman's childbearing potential). Mortality is the study of the causes, consequences and measurement of processes affecting death in a population. Demographers most commonly study mortality using the Life Table, a statistical _____ which provides information about the mortality



conditions (most notably the life expectancy) in the population. Migration refers to the movement of persons from an origin place to a destination place across some pre-defined political boundary. Migration researchers do not designate movements as migrations, _____ they are somewhat permanent. Thus demographers do not consider tourists and travelers to be migrating. While demographers who study migration typically do so through census data on place of _____, indirect sources of data including tax forms and labor force surveys are also important. Demography is today widely taught in many universities across the world, _____ students with initial training in social sciences, statistics or health studies.

Options:

- 1) contributes, rotates, involves, encapsulates
- 2) ingredient, room, factor, device
- 3) but, though, unless, however
- 4) commute, residence, life, health
- 5) confusing, attracting, dividing, discriminating

Answer: involves, device, unless, residence, attracting

- 49) Bones also protect the organs in our bodies. The skull protects the brain and forms the shape of the face. The spinal cord, a pathway for messages between the brain and the body, is protected by the backbone, or spinal column. The ribs form a cage that _____ the heart and lungs, and the pelvis helps protect the bladder, part of the intestines, and in women, the reproductive organs. Bones are made up of a framework of a protein called collagen , with a mineral called calcium phosphate that makes the framework hard and strong. Bones store calcium and release some into the bloodstream when it's needed by other parts of the body. The amounts of certain vitamins and minerals that you eat, especially vitamin D and calcium, directly affect



how much calcium is stored in the bones. Joints are where _____ bones meet. They make the skeleton flexible – without them, movement would be impossible. Joints allow our bodies to move in many ways. Some joints open and close like a hinge (such as knees and elbows), whereas others allow for more complicated movement – a shoulder or hip joint, for example, allows for backward, forward, sideways, and rotating movement. Joints are classified by their range of movement: Immovable, or fibrous, joints don't move. The dome of the skull, for example, is made of bony plates, which move slightly during birth and then fuse together as the skull finishes growing. Between the edges of these plates are links, or joints, of fibrous tissue. Fibrous joints also hold the teeth in the jawbone. Partially movable, or cartilaginous, joints move a little. They are linked by cartilage, as in the spine. Each of the vertebrae in the spine moves in relation to the one above and below it, and together these movements give the spine its flexibility. Freely movable, or synovial (pronounced: sih-NO-vee-ul), joints move in many directions. The _____ joints of the body – such as those found at the hip, shoulders, elbows, knees, wrists, and ankles – are freely movable. They are filled with synovial fluid, which acts as a lubricant to help the joints move easily. _____ kinds of freely movable joints play a big part in voluntary movement: Hinge joints allow movement in one direction, as seen in the knees and elbows. Pivot joints allow a rotating or twisting motion, like that of the head moving from side to side. Ball-and-socket joints allow the greatest freedom _____ movement. The hips and shoulders have this type of joint, in which the round end of a long bone fits into the hollow of another bone.

Options:

- 1) alleviates, incurs, moves, shelters
- 2) that, which, one, two



- 3) whole, entire, individual, main
4) All, Two, One, Three
5) within, except, against, of
6) Answer: shelters, two, main, Three, of
- 50) Books and articles highlighting intractable debt, poverty and development abound in both the academic and popular literature. This addition to the debate is both timely and interesting _____ it subsumes the economic debate to the broader social, political, environmental and institutional context of debt in developing countries. Debt-for-Development Exchanges: History and New Applications is _____ for a wide audience including: academics from a range of disciplines (including accounting and finance); non-Government organizations (NGOs); civil society groups; and, both debtor and creditor governments and public sector organization. Professor Ross Buckley, author and editor, _____ an international profile in the area of debt relief and this book is the outcome of an Australian Research Council (ARC) Discovery grant to explore debt-for development mechanisms that relieve debt, improve development outcomes _____ aid, are practically and politically attractive to creditors and _____ to regional security.

Options:

- 1) due to, as, so, for
2) planned, accepted, determined, intended
3) develop, has developed, have developed, developed
4) into, in, from, at
5) cause, lead, attribute, contribute
- Answer: as, intended, has developed, from, contribute
- 51) Since biological systems with signs of _____ engineering are unlikely to have arisen from accidents or coincidences, their _____ must come from natural



selection, and hence should have _____ useful for survival and reproduction in the environments in which humans evolved.

Option:

- 1) complimentary, complex, compensatory, compendious
- 2) compilation, organization, eccentricity, metabolism
- 3) evaluations, functions, intentions, attentions

Answer: complex, organization, functions

52) Cultural studies is a new way of engaging in the study of culture. In the past, many academic subjects including anthropology, history, literary studies, human geography and sociology have brought their own disciplinary concerns to the study of culture. However, in recent decades there has been a _____ interest in the study of culture that has crossed disciplinary boundaries. The _____ activities and cultural studies have emerged as an intriguing and exciting area of intellectual inquiry that has already shed important new life on the character of human cultures and which _____ to continue to do so. While there is a little doubt that cultural studies are coming to _____ as an important and distinctive field of study, it does seem to encompass a potentially enormous area. This is because the term 'culture' has a complex history and range of usages, which have provided a legitimate _____ of inquiry for several academic disciplines.

Option:

- 1) renewed, refunded, renowned, irresistible
- 2) discriminations, similarities, boundaries, differentiations
- 3) simultaneous, spontaneous, resulting, derivative
- 4) declines, responds, promises, hesitates
- 5) phase out, pull together, be widely recognized, be narrowly reduced
- 6) dispersion, focus, revision, instance



Answer: renewed, boundaries, resulting, promises, be widely recognized, focus

53) Bones are extremely strong. One of their _____ functions is to protect organs. For example, the skull protects the brain; ribs protect _____ heart and lungs. There are _____ types of joints, including fixed joints, slightly moveable joints, and freely moving joints.

Option:

- 1) main, individual, auxiliary, nominal
- 2) a, the, these, their
- 3) countless, few, any, three

Answer: main, the, three

54) For too long we have held preconceived notions of 'the' market and 'the' state that were seemingly independent of local societies and cultures. The debate about civil society ultimately is about how culture, market and state _____ each other. Concern about civil society, however, is not only relevant to central and eastern Europe and the developing world. It is very much of _____ the European Union as well. The Civil Dialogue Initiated by the Commission in the 1990s was a first attempt by the EU to give the institutions of society – and not only governments and businesses – a voice at the policy-making tables in Brussels. The EU, like other international institutions, has a long way to go in trying to _____ the frequently divergent interests of non-governmental organizations and citizen groups. There is increasing _____ that international and national governments have to open up to civil society institutions.

Option:

- 1) conform to, diverge from, relate to, assimilate into
- 2) distribution across, interest to, belief within, honors of
- 3) duplicate, accommodate, exclude, defy



4) conception, oscillation, discretion, recognition

Answer: relate to, interest to, accommodate, recognition

55) Daniel Harris, a scholar of consumption and style, has observed that until photography did finally _____ illustration as the "primary means of _____ clothing" in the 1950s, glamour inhered _____ in the face of the drawing, which was by necessity schematic and generalized, than in the sketch's _____, posture, and gestures, especially in the strangely dainty positions of the hands. Glamour once resided so emphatically in the stance of the model that the faces in the illustrations cannot really be said to have _____ at all, but angles or tilts. The chin raised upwards in a haughty look; the eyes lowered in an attitude of introspection; the head cocked at an inquisitive or coquettish angle: or the profile presented in sharp outline, emanating power of the severity like an emperor's bust _____ on a Roman coin.

Option:

- 1) surmount, deplete, supplant, overestimate
- 2) everlasting, enduring, luminous, advertising
- 3) least, few, yet, less
- 4) attitude, altitude, magnitude, analogue
- 5) expressions, exceptions, expectations, experiences
- 6) encircled, embodied, embossed, encrypted

Answer: supplant, advertising, less, attitude, expressions, embossed

56) The general perception is that children are _____ by a variety of musical experiences. There are often fewer and fewer opportunities for children to actively engage in music making themselves. They are inundated with music emitting from a wide _____ of electronic devices, toys, and computers offering a _____ number of musical selections. However, much of the music in children's lives is 'unchosen', in other words they are _____ recipients in



much of the music in their lives, and not actively engaged in its selection. They experience background music in computer games, cartoons, TV shows, films, on iPads, radios, and ringtones. They listen to music choices of their parents or siblings, and even the schools they attend often play music before the school day begins or in classrooms while students are working. Studies are being _____ on the effects of the ubiquitous pre-recorded music they encounter and whether or not it _____ on their desire to make their own music or interact with each other on the playground.

Option:

- 1) surrounded, deterred, deferred, characterized
- 2) array, appointment, access, arrangement
- 3) limitless, plunging, excessive, spacious
- 4) dormant, bilateral, active, passive
- 5) abandoned, culminated, confided, conducted
- 6) can have intruded, would have intruded, could have intruded, is intruding

Answer: surrounded, array, limitless, passive, conducted, is intruding

- 57) Barrie Finning's, a professor at Monash University's college of pharmacy in Melbourne, and PhD student Anita Schneider, recently tested a new wrinkle cure. Twice daily, 20 male and female volunteers applied a liquid containing Myoxinol, a patented _____ of okra (*Hibiscus esculentus*) seed, to one side of their faces. On the other side they applied a similar liquid without Myoxinol. Every week for a month their wrinkles were tested by self-assessment, photography and the size of depressions made in silicon moulds. The results were impressive. After a month the _____ and number of wrinkles on the Myoxinol-treated side were reduced by approximately 27 per cent. But Finnin's research, commissioned by a cosmetics company, is unlikely to be published in a scientific _____. It's hard to even find studies that show the



active ingredients in cosmetics penetrate the skin, let alone more comprehensive research on their effects. Even when _____ studies are commissioned, companies usually control whether the work is published in the traditional scientific literature.

Option:

- 1) example, exertion, explanation, extract
- 2) concentration, depth, prowess, strength
- 3) encyclopedia, publicity, publication, enclosure
- 4) ritual, erratic, rough, rigorous

Answer: extract, depth, publication, rigorous

- 58) Radioactivity was discovered in 1896 by the French physicist, Antoine Henri Becquerel. He left an unexposed photographic plate in the dark near a sample of a uranium salt. When the plate was _____ it was found to be _____, just as if it had been exposed to light, which was caused by a form of radiation from the uranium. The term radioactivity was _____ by Marie Curie and her husband Pierre Curie. They worked together and showed that radioactivity was an atomic property not a chemical change. The _____ of radioactivity won the Curies and Ekcquerel the Nobel Prize for Physics in 1903.

Option:

- 1) developed, unraveled, overlapped, transmitted
- 2) transparent, corrugated, fogged, clarified
- 3) concocted, coined, created, designed
- 4) fabrication, invention, discharge, discovery

Answer: developed, fogged, coined, discovery

- 59) A Massey ecologist has teamed up with a leading wildlife photographer to produce the definitive book on New Zealand's national bird, the kiwi. Kiwi: A Natural History was written by Dr Isabel Castro and _____ photographs by



Rod Morris. Dr Castro has been working with kiwi _____ 1999, with a focus on their behavior. 'I've specifically been looking at the sense of smell that kiwi uses when foraging, but _____ in their interactions with their environment and other kiwi,' she says. The book covers all aspects of kiwi, from their evolution, prehistory and closest relatives to their feeding and breeding behavior and current conservation issues, _____ this the perfect introduction for anyone with an interest in these fascinating birds. The book is the second title in a new _____ on New Zealand's wildlife, targeted at a family readership.

Option:

- 1) featuring, featured, features, feature
- 2) within, through, since, until
- 3) also, yet, either, never
- 4) assuming, making, defying, meaning
- 5) revision, derivation, series, means

Answer: features, since, also, making, series

- 60) For a start, we need to change our _____ of 'retirement', and we need to change mind-sets arising from earlier government policy which, in the face of high unemployment levels, encouraged mature workers to take early retirement. Today, government encourages them to _____ their retirement. We now need to think of retirement as a phased process, where mature age workers _____ reduce their hours, and where they have considerable flexibility in how they combine their work and non-work time. We also need to recognize the broader change that is occurring in how people work, learn, and live. Increasingly we are moving away from a linear relationship between education, training, work, and retirement, as people move in and out of jobs, careers, caregiving, study, and leisure. Employers of choice remove the



_____ between the different segments of people's lives, by creating flexible conditions of work and a range of leave entitlements. They take an individualized approach to workforce planning and development so that the needs of employers and employees can be met _____. This approach supports the different transitions that occur across the life course - for example, school to work, becoming a parent, becoming responsible for the care of older relatives, and moving from work to retirement.

Option:

- 1) contempt, confrontation, concept, conclusion
- 2) delay, commence, protract, drag
- 3) radically, disruptively, abruptly, gradually
- 4) hinges, barriers, nexus, bans
- 5) condescendingly, simultaneously, hypocritically, spontaneously

Answer: concept, delay, gradually, barriers, simultaneously

61) Look at the recent "Most Respected Companies" survey by the Financial Times. Who are the most respected companies and business leaders at the _____ time? Rather predictably, they are Jack Welch and General Electric, and Bill Gates, and Microsoft. _____ has achieved their world-class status through playing nice. Welch is still remembered for the brutal downsizing he led his business _____, and for the environmental pollution incidents and prosecutions. Microsoft has had one of the _____ profile cases of bullying market dominance of recent times - and Gates has been able to _____ the financial status where he can choose to give lots of money away by being ruthless in business.

Option:

- 1) past, before, last, current
- 2) Also, Both, Neither, All



- 3) through, out, by, along
- 4) largest, highest, biggest, most
- 5) archive, acquaint, receive, achieve

Answer: current, Neither, through, highest, achieve

62) In the developed world, home appliances have greatly reduced the need for physical labor. _____ people need to be involved in tasks that once left them little time to do much else. For example, the word processor and email have, to a great _____, replaced the dedicated secretarial staff that briefly flourished with the rise of the typewriter. At _____ time all copies were made with manual scribes, carefully duplicating what they read. Then we had carbon paper. Then photocopiers. Then printers. Then the requirement for physical copy reduced. An entire stream of labor appeared and disappeared as technology advanced. We freed ourselves of one kind of work; we just replaced it _____ another.

Option:

- 1) Fewer, More, Less, Many
- 2) extension, possibility, range, extent
- 3) once, some, one, a
- 4) with, as, for, to

Answer: Fewer, extent, one, with

63) Decision making is central to the management of an enterprise. The manager of a profit-making business has to decide on the manner of implementation of the objectives of the business, at least one of which may _____ relate to allocating resources so as to maximize profit. A non-profit-making enterprise (such as a department of central or local government) will be making decisions on resource allocation so as to be economical, efficient and effective _____ finance. All organizations, whether in the private sector or



the public sector, _____ decisions which have financial implications.

Decisions will be about resources, which may be people, products, services or long-term and short term investment. Decisions will also be about activities, including whether and how to undertake them. Most decisions will at some stage involve consideration of financial matters, _____ cost.

Option:

- 1) well, definitely, also, thereby
- 2) in its use of, to an extent of, in the accordance with, on the level of
- 3) beget, uplift, adapt, take
- 4) eventually, consequently, particularly, spontaneously

Answer: well, in its use of, take, particularly

- 64) Affordable early years education and childcare potentially enables parents, particularly mothers, to be in paid employment. International studies _____ that countries with greater enrolment rates in publicly funded or provided childcare also have higher maternal employment rates, although untangling causal relationships is complex. From the point of view of the household additional income, especially for the less well-off, is itself associated with better outcomes for children, as child poverty _____ to be a key independent determinant of children's outcomes. From the point of view of the public purse, as mothers _____ employment, they are likely to claim fewer benefits and to generate extra revenues _____ income tax.

Option:

- 1) are finding, found, have yet to find, have found
- 2) is shown, has been shown, was showing, showed
- 3) enact, enroll, enter, enlist
- 4) through, within, by, throughout

Answer: have found, has been shown, enter, through



65) While workers worry about whether robots will take their jobs, teachers are wondering how to use education to insulate the next generation from such a fate. This _____ before. When the last wave of automation swept the developed world at the start of the 20th century, policymakers decided education was the answer. If machines were going to substitute for brawn, _____, more people would need to use their brains. The US invested _____ in education, with good results. Workers reaped the benefits through better jobs and higher wages. Economists Andrew McAfee and Erik Brynjolfsson summed it up like this: 'The industrial revolution _____ a race between technology and education -- and, for most of the 20th century, humans won that race.'

Option:

- 1) would work, was working, has worked, has yet to work
- 2) it was, they objected, they reasoned, it was
- 3) inadvertently, heavily, stingily, expensively
- 4) started, installed, adapted, stalled

Answer: has worked, they reasoned, heavily, started

66) One of Australia's most remarkable natural gifts, the Great Barrier Reef is blessed with the breathtaking beauty of the world's largest coral reef. The reef contains an _____ of marine life and comprises of over 3000 individual reef systems and coral cays and literally hundreds of _____ tropical islands with some of the world's most beautiful sun-soaked, golden beaches. Because of its natural beauty, the Great Barrier Reef has become one of the world's most _____ after tourist destinations. A visitor to the Great Barrier Reef can enjoy many _____ including snorkeling, scuba diving, aircraft or helicopter tours, bare boats (self- sail) glass-bottomed boat viewing, semi-



submersibles and educational trips, cruise ship tours, whale watching and swimming with dolphins.

Option:

- 1) access, acquaintance, equivalence, abundance
- 2) illusionary, exterritorial, picturesque, visionary
- 3) sought, thought, caught, met
- 4) expeditions, experiences, expectations, emporiums

Answer: abundance, picturesque, sought, experiences

67) Sydney is becoming effective in making the best of its limited available unconstrained land. Sydney is suitable for integrating suitable business, office, residential, retail and other development in accessible locations so as to maximize public transport _____ and encourage walking and cycling. Also, this city can reduce the _____ of land for housing and associated urban development on the urban fringe. For the proposed mixed business, mixed use and business park areas, there was no employment data available for _____ areas. It is also concluded that lack of housing supply will affect _____ in Sydney.

Option:

- 1) profit, perspective, percentage, patronage
- 2) consumption, replenishment, inventory, accumulation
- 3) compensatory, competitive, communicative, comparable
- 4) durability, floridity, fluidity, affordability

Answer: patronage, consumption, comparable, affordability

68) A music student at the University of Salford who wrote a song in two weeks is celebrating _____ being featured on a compilation album produced by Metropolis Studios. Pop mega-stars including Adele, Michael Jackson and Sir Elton John have all recorded music at the world-famous Metropolis Studios.



Last year, the recording studios set _____ compiling an album called 'Lost Songs', which features songs from relatively unknown musicians. First-year student Zak Taylor Fray decided to submit his song demo to be included in Volume Two of the Lost Songs album which was released this year, after he saw _____ successful Volume One had been. Zak 24, said: ' I found this competition when simply _____ the internet for songwriting competitions one day, and was lucky that there was still _____ to enter. It amazes me that people who have worked with huge pop stars thought my song was good and worth something.'

Option:

- 1) except, without, before, after
- 2) off, on, up, about
- 3) how, that, which, if
- 4) search, searching, have searched, searched
- 5) expiry, chance, opportunity, time

Answer: after, about, how, searching, time

- 69) The writer, or, for that matter, the speaker conceives his thought whole, as a unity, but must express it in a line of words; the reader, or listener, must take this line of symbols and from it _____ the original wholeness of thought. There is _____ difficulty in conversation, because the listener receives innumerable cues from the physical expressions of the speaker; there is a dialogue, and the listener can _____ in at any time. The advantage of group discussion is that people can overcome linear sequence of words by _____ on ideas from different directions; which makes for wholeness of thought. But the reader is confronted by line upon line of printed symbols, without benefits of physical _____ and emphasis or the possibility of dialogue or discussion.

Option:



- 1) recover, respect, reconstruct, reduce
- 2) little, no, many, few
- 3) lean, cut, intrude, get
- 4) inventing, spending, conceiving, converging
- 5) tune, thumb, tone, tile

Answer: reconstruct, little, cut, converging, tone

70) A giant turtle made from discarded plastic trash will greet visitors to the British Science Festival this week. The plastic containers, bottles and cups were collected locally in Hull, where the event is taking place at the city's university. Standing 3.5m tall (11.5ft), the art installation _____ commissioned by the University of Hull with the aim of raising awareness of plastic waste. Professor Dan Parsons, director of the university's Energy and Environment Institute, said: 'Marine pollution is a mounting global challenge, which is already having _____ consequences. We have a duty to protect these fragile environments and the marine life and ecosystems which we _____ home. The university has commissioned this installation as a physical _____ of what is ending up in the oceans, but also to ask visitors to campus to stop and think what they could do to try to reduce their own waste.'

Option:

- 1) has, being, have, was
- 2) devastated, devastating, devastate, to devastate
- 3) settle, call, originate, go
- 4) reminder, receipt, reinforcement, recognition

Answer: was, devastating, call, reminder

71) Assessments of language learning in 18-month-olds suggest that children are better at grasping the names of objects with repeated syllables, over words with non-identical syllables. Researchers say the study may help explain



_____ some words or phrases, such as 'train' and 'good night', have given rise to versions with repeated syllables, such as choo-choo and night-night. The researchers say such words are easier for infants to learn, and may provide them _____ a starter point for vocabulary learning. A team from the University of Edinburgh assessed the infants' language learning behavior in a series of visual and attention tests _____ pictures on a computer screen of two unfamiliar objects. The two objects were named with made-up words which were _____ to the infants by a recorded voice - one with two identical syllables, for example neenee, and the other without repeated syllables, such as bolay. The infants were then tested for their recognition of _____ word. Recordings of their eye movements showed they looked more reliably at the object labeled with repeated syllables, than the other object. Researchers validated their results with a control test, in which the infants responded to pictures of familiar objects - such as a dog or an apple.

Option:-

- 1) that, whether, however, why
- 2) under, above, in, with
- 3) depleting, making, applying, using
- 4) communicated, expressed, accommodated, accelerated
- 5) another, dual, each, one

Answer: why, with, using, communicated, each

- 72) A novel invention for helping farmers to dry out hay more quickly has won a University of Glasgow graduate a prestigious design award. Gavin Armstrong, 23, from Kippen, Stirlingshire _____ the Glasgow 1999 Design Medal for his design for a swath inverter— a _____ for flipping over a hay crop to help dry out the damp underside. Dry hay is an essential farmyard food source for sheep and cows. Gavin came up with the design as part of his Product Design



Engineering degree course, run in _____ with Glasgow School of Art. He built a working prototype of the device which is powered and towed by a tractor and uses a pair of parallel belts to invert the swath. The rollers are driven from one hydraulic motor and are geared so as to spin at the same speed and in opposite directions _____ that the touching inner two faces of the belt that perform the inversion move rearwards at the same speed.

Option:-

- 1) forged, consigned, renewed, scooped
- 2) suggestion, prediction, situation, device
- 3) comparison, accordance, conjunction, contrast
- 4) denying, supposing, imposing, ensuring

Answer:- scooped, device, conjunction, ensuring

- 73) Can dogs tell when we are happy, sad or angry? As a dog owner, I feel _____ not only that I can tell what kind of _____ state my pets are in, but also that they respond to my emotions. Yet as a hard-headed scientist, I try to take a more _____ and pragmatic view. These _____ observations seem more likely to result from my desire for a good relationship with my dogs.

Option:-

- 1) relieved, sententious, embarrassed, confident
- 2) political, emotional, financial, physical
- 3) irregular, chaste, stoical, rational
- 4) communal, discrete, absurd, personal

Answer:- confident, emotional, rational, personal

- 74) It is important to emphasize the need for hard work as an essential part of studying law, because far too many students are tempted to think that they can succeed by relying on what they imagine to be their natural ability, without bothering to add the _____ of effort. To take an analogy some



people prefer the more or less instant _____ which comes from watching television adaptation of a classic novel to the rather more _____ process of reading the novel itself. Those who _____ watching television to reading the book are less likely to study law successfully, unless they rapidly acquire a _____ for text-based materials.

Option:-

- 1) expenditure, exhaustion, explanation, exclusion
- 2) gratification, excitement, temptation, obsession
- 3) simple, complex, effortless, laborious
- 4) prefer, Enjoy, interest, like
- 5) knowledge, idea, motivation, taste

Answer: expenditure, gratification, laborious, prefer, taste

75) Two decades ago, Kashmiri houseboat-owners rubbed their hands every spring at the prospect of the annual influx of _____. From May to October, the hyacinth-choked _____ of Dal Lake saw flotillas of vividly painted Shikaras carrying Indian families, boho westerners, young travelers and wide-eyed Japanese. Carpet-sellers _____ their skills, as did purveyors of anything remotely embroidered while the house boats initiated by the British Raj provided unusual accommodation. Then, in 1989, separatist and Islamist militancy _____ and everything changed. Hindus and countless Kashmiri business people bolted, at least 35,000 people were killed in a decade, the lake stagnated, and the houseboats rotted. Any foreigners venturing there risked their _____, proved in 1995 when five young Europeans were kidnapped and murdered.

Option:-

- 1) volunteers, watchdogs, employees, tourists
- 2) waters, connection, atmosphere, volume



- 3) enacted, registered, honed, wasted
- 4) fell, enacted, followed, attacked
- 5) credits, insurances, lives, contributions

Answer: tourists, waters, honed, attacked, lives

76) The morality of the welfare state depends on contribution and responsibility. Since some people don't contribute and many are irresponsible, the choices of those who do contribute and are responsible are either to _____ the free riders, refuse to pay for the _____ of their irresponsibility or trust the state to _____ them. Hence the government campaigns against smoking, alcoholism, obesity and gas guzzling - the first two solidly in place, the other two ramping up. But the British state now goes further: it acts in favor of sexual and racial minorities. In the case of gay men and women this means progressively removing the legal disadvantages under which they have lived, and ensuring that society as a whole observes the new order.

Option:-

- 1) tolerate, believe, overlook, misunderstand
- 2) effects, contents, appearances, causes
- 3) educate, breach, divide, muster

Answer: tolerate, effects, educate

77) Clones of an Eastern cottonwood (*Populus deltoids*) in the Bronx and other city spots grew to double the biomass of clones _____ outside small towns upstate or on Long Island, says Jillian Gregg, now of the Environmental Protection Agency's western-ecology division in Corvallis, Ore. The growth gap comes from ozone damage, she and her New York colleagues report. Ozone chemists have known that concentrations may spike skyscraper high in city air, but during a full 24 hours, rural trees actually get a higher cumulative ozone exposure from urban pollution that _____ in and lingers. A series of



new experiments now shows that this hang-around ozone is the _____ factor in tree growth, the researchers say in the July 10 Nature. "This study has profound importance in showing us most vividly that rural areas _____ the price for urban pollution," says Stephen P. Long of the University of Illinois at Urbana-Champaign. "This work should be a wake-up call," he adds.

Option:-

- 1) implanted, supplanted, fused, planted
- 2) climbs, stays, blows, strikes
- 3) overwhelming, overrated, overacting, overestimated
- 4) quote, pay, refund, copy

Answer: planted, blows, overwhelming, pay

- 78) At the end of the colonial era, as many new nations gained independence, relative levels of economic development became an important criterion by which to distinguish between countries. The former colonial powers and _____ parts of the world generally became known as advanced industrial, or developed countries, _____ former colonies and poorer nations became known as less developed, or more positively, developing countries. Critics of the _____ distribution of wealth across the globe highlighted the role which wealth creation in some places had played in impoverishing poorer nations and, rather, described them as actively underdeveloped. The question as to _____ economic change is developing or under developing countries remains a vital issue, as the debate over sweatshops highlights.

Option:-

- 1) wealthier, richer, healthier, warmer
- 2) while, although, so, because
- 3) odd, uneven, ubiquitous, sporadic
- 4) whether, which, what, when



Answer: wealthier, while, uneven, whether

79) Many tests have shown that, in a very broad way, peoples in most parts of the world have similar color preferences. Blue is the most preferred and popular hue, followed in order by red, green, purple, yellow and orange. Overlaying this basic order of color preference, _____, are the responses of individuals, which of course vary _____ and may also be very powerful. Children are likely to have strong _____ for some colors and aversions to others, but sometimes will not admit to them, since outside _____ may be influential in determining both color preferences and the way that they are expressed or suppressed. Current fashions in clothes and accessories, gender-stereotyping and peer-group pressure may all play a significant part. Boys in particular may be reluctant to admit to any strong preferences for colors _____ those of favorite football teams, because color awareness may be regarded by their peer-group as feminine.

Option:-

- 1) however, thus, therefore, so
- 2) widely, slightly, badly, strongly
- 3) preferences, similarities, divergences, comparisons
- 4) pressures, factors, appearances, reasons
- 5) ahead of, rather than, together with, other than

Answer: however, widely, preferences, factors, other than

80) They call it the "marshmallow test." A four- to-six-year-old-child sits alone in a room at a table facing a marshmallow on a plate. The child is told: "If you don't eat this _____ for 15 minutes you can have both it and a second one." Kids on average wait for five or six minutes before eating the marshmallow. The _____ a child can resist the temptation has been correlated with higher



general competency later in life. Now a study shows that ability to resist temptation isn't strictly _____ -- it's also highly influenced by environment.

Option:-

- 1) fun, joy, recipe, treat
- 2) longest, longer, long, longing
- 3) artificial, innate, intimate, disguised

Answer: treat, longer, innate

81) Omniscience may be a foible of men, but it is not so of books. Knowledge, as Johnson said, is of two _____, you may know a thing yourself, and you may know where to find it. Now the amount which you may actually know yourself must, at its best, be limited, but what you may know of the _____ of information may, with proper training, become almost boundless. And here come the _____ and use of reference books--the working of one book in connection with another--and applying your own _____ to both. By this means we get as near to that omniscient volume which tells everything as ever we shall get, and although the single volume or work which tells everything does not exist, there is a vast number of reference books in existence, a knowledge and proper use of which is essential to every intelligent person. Necessary as I believe reference books to be, they can easily be made to be _____ to idleness, and too mechanical a use should not be made of them.

Option:-

- 1) identifications, kinds, stages, platforms
- 2) resources, sources, fabrications, ends
- 3) limit, proportion, clue, value
- 4) intelligence, interest, memory, mind
- 5) contemporary, constitutional, lucrative, contributory



Answer: kinds, sources, value, intelligence, contributory

82) The _____ in marriage rates and increase in divorce rates has led to a _____ in the proportion of the population that is formally married. In 1986, 60% of the population aged 15 years and over were married; by 2001 this proportion had decreased to 55%. _____ the proportion of the population aged 15 years and over who were never married increased from 29% in 1986 to 32% in 2001. At the same time, the proportion of the population who were divorced _____, from 5% in 1986 to 7% in 2001, while the proportion of the population who were widowed remained at around 6%.

Option:-

- 1) calculation, significance, decline, decrease
- 2) view, change, decrease, multiplication
- 3) So, Conversely, Therefore, Consequently
- 4) doubled, rounded, increased, divided

Answer: decline, decrease, Conversely, increased

83) It is an original work, not an excerpted passage. An abstract must be fully self-contained and _____ sense by itself, without further reference to outside sources or to the actual paper. It highlights key _____ areas, your research purpose, the relevance or importance of your work, and the main outcomes. It is a well-developed single paragraph of approximately 250 words _____ length, which is indented and single spaced. The function of the abstract is to outline briefly all parts of the paper. Although _____ at the beginning of your paper, immediately following the title page, the abstract should be the last thing that you write, _____ you are sure of the conclusions you will reach.

Option:-

- 1) get, give, take, make



- 2) contemplate, content, account, comment
- 3) from, within, to, in
- 4) it is placed, it has omitted, it is transferring, it started
- 5) once, then, before, and

Answer: make, content, in, it is placed, once

84) Paraphrasing is often defined as putting a passage from an author into your own words. However, what are your own words? How different must your paraphrase be from the original? The answer is it should be _____ different. The whole point of paraphrasing is to show you have read and understood another person's ideas, and can summarize them in your own writing style rather than borrowing their phrases. If you just change a few words, or add some bits _____ your own to an otherwise reproduced passage, you will probably _____ for plagiarism. You should aim to condense and simplify a writer's ideas and describe them using different sentence structures and expressions. _____ also important to credit the original writer by referencing.

Option:-

- 1) considerable, considerate, considering, considerably
- 2) despite, of, on, off
- 3) be penalizing, be penalized, have penalized, penalize
- 4) That has, It is, There is, That is

Answer: considerable, of, be penalized, It is

85) The study of objects constitutes a relatively new field of academic enquiry, commonly referred to as material culture studies. Students of material culture seek to understand societies, both past and present, through careful study and _____ of the physical or material objects generated by those societies. The source material for study is exceptionally wide, _____ not just human-made artefacts but also natural objects and even preserved body parts (as



you saw in the film 'Encountering a body'). Some specialists in the field of material culture have made bold claims for its pre-eminence. In certain disciplines, it reigns _____. It plays a critical role in archaeology, for example, especially in circumstances where written evidence is either patchy or non-existent. _____, objects are all scholars have to rely on in forming an understanding of ancient peoples. Even where written documents survive, the physical remains of literate cultures often help to provide new and interesting insights into how people once lived and thought, _____ the case of medieval and post-medieval archaeology. In analyzing the physical remains of societies, both past and present, historians, archaeologists, anthropologists and others have been careful to remind us that objects mean different things to different people.

Option:-

- 1) experiment, modification, consumption, observation
- 2) includes, including, included, had included
- 3) power, supreme, force, strength
- 4) By no means, In such cases, In this time, In this way
- 5) as long as, as if, as a result of, as in

Answer:- observation, including, supreme, In such cases, as in

- 86) Psychology as a subject of study has largely developed in the West since the late nineteenth century. During this period there has been an _____ on scientific thinking. Because of this, there have been many scientific studies in psychology which _____ different aspects of human nature. These include studies into how biology (physical factors) influences human experience, how people use their _____ (touch, taste, smell, sight and hearing) to get to know the world, how people develop, why people behave in certain ways, how memory works, how people develop language, how people understand and



think about the world, what motivates people, why people have emotions and how personality develops. These scientific _____ all contribute to an understanding of human nature. What do we mean by the practical applications of these studies? An _____ of psychology is useful in many different areas in life, such as education, the workplace, social services and medicine. This means that people who have knowledge of psychology can _____ or apply that knowledge in areas such as the ones listed above.

Option:-

- 1) emphasis, attention, example, extension
- 2) exclude, summon, separate, explore
- 3) brains, skins, minds, senses
- 4) assumptions, correlations, investigations, stimulations
- 5) ideology, empowerment, understanding, equivalence
- 6) register, classify, use, prepare

Answer: emphasis, explore, senses, investigations, understanding, use

87) In a new study _____ in the journal Nature Communications, scientists from the universities of Nottingham and Durham and the British Geological Survey (BGS), have discovered the cause of a mass extinction within marine organisms called foraminifera. Foraminifera are an important group in relation to biomass in the deep ocean and the cause of their extinction was _____ unknown. Scientists tested various possible _____ for the mass extinction and were able to discount others such as ocean cooling. _____ they discovered that the extinction was caused by a global change in plankton at the surface of the ocean.

Option:-

- 1) publishing, has published, published, be publishing
- 2) occasionally, necessarily, previously, currently



- 3) causes, consequences, elements, factors
- 4) Hence, Thus, So, Instead

Answer: published, previously, causes, Instead

88) The stock of Australia's dwellings is _____, with current homes having more bedrooms on average than homes ten years ago. At the same time, households are getting smaller on average with decreasing _____ of couple families with children and _____ couple only and lone person households. This _____ examines the changes in household size and number of bedrooms from 1994- 95 to 2003-04.

Option:-

- 1) evanescent, eternal, erupting, evolving
- 2) interests, proportions, appearances, durations
- 3) flopping, increasing, fluctuating, declining
- 4) witness, suggestion, article, index

Answer: evolving, proportions, increasing, article

89) Mechanical engineering was at the heart of Taylor's theorizing, providing the context for its development, the world view by which it was sustained and, finally, the justification for its widespread application. Scientific management aimed to analyses and control the activities of people _____ engineers analyzed and controlled machines. Central _____ Taylor's system was the desire _____ and standardize production techniques in the interests of economy, efficiency and mutual prosperity. His primary point of interest was the individual worker _____ individual goals and motivated by incentive payments. _____ Taylor's view of human motivation was somewhat simplistic and his apprehension of the significance of groups was limited and generally negative.

Option:-



- 1) in the same way which, as far as which is concerned, to some extent in which, in the same way that
- 2) around, within, to, from
- 3) of rationalized, on rationalized, with rationalize, to rationalize
- 4) purchasing, purging, pursuing, is pursuing
- 5) Consequently, Undoubtedly, Subsequently, Unthinkably

Answer: in the same way that, to, to rationalize, pursuing, Undoubtedly

90) Uniquely stable, they _____ to participate in no chemical reactions. But by understanding the stability of the noble gases, physicists discovered the key to chemical bonding _____. Dmitri Mendeleev added the noble gases to his periodic table in 1902, where he arranged the elements in rows and columns _____ to their atomic weight. Mendeleev was able to see repeating (or periodic) patterns in their properties. The noble gases appeared _____ in the periodic table, occurring in every eighth position, at least amongst the lighter elements.

Option:-

- 1) seemed, refused, insisted, cared
- 2) itself, only, well, proper
- 3) disproportionate, opposite, additional, according
- 4) unevenly, regularly, vagariously, vaguely

Answer: seemed, itself, according, regularly

91) Contexts is a quarterly magazine of the American Sociological Association about society and social behavior. Directed to _____ interested in the latest sociological ideas and research, Contexts seeks to apply new knowledge, stimulate fresh thinking, and disseminate important information _____ by the discipline. The publication's articles synthesize key findings, weave _____ diverse strands of work, draw out implications for policy, and debate issues of



controversy. The hallmarks of Contexts are accessibility, broad appeal, and timeliness. By design, it is not a technical journal, _____ a magazine for diverse readers who wish to be current about social science knowledge, emerging trends, and their relevance.

Option:-

- 1) anyone, someone, whom, nobody
- 2) covered, shaded, produced, overcome
- 3) within, together, into, regardless
- 4) and, but, also, never

Answer: anyone, produced, together, but

92) People in parts of western Africa and southwestern Asia were the first to realize that the dark-silvery rocks poking out of the earth could be worked into tools and weapons, sometime around 1500 B.C., evidence shows. The metal was probably discovered there _____ accident when some ore was dropped into a fire and cooled into wrought iron, historians think. The eureka moment didn't reach Europe for _____ 500 years, traveling slowly north and west through Greece, Italy, central Europe and finally to the British Isles _____ the spread of the famous Celtic tribes. The Celts diffused iron technology over much of the continent through warfare, where their victory was assured due to the strength of iron weapons. Perhaps not the most peaceful of cultural exchanges, but where the technology did travel, it caught on fast. Iron _____ life a lot easier in those days, when just living to the age of 45 was a feat. By that time, much of Europe had _____ into small village life, toiling the soil with bronze and stone tools.

Option:-

- 1) at, for, in, by
- 2) few, another, further, less



- 3) along, with, without, for
- 4) make, made, makes, making
- 5) turned, settled, assigned, pressed

Answer: by, another, with, made, settled

93) No matter whether you speak English or Urdu, Walloon or Waziri, Portuguese or Persian, the roots of your language are the same. Proto-Indo-European (PIE) is the mother tongue _ shared by several hundred contemporary languages, as well as many now extinct, and spoken by people who lived from about 6,000 to 3,500 BC on the steppes to the north of the Caspian Sea. They left no written texts and _____ although historical linguists have, since the 19th century, painstakingly reconstructed the language from daughter languages, the question of how it actually sounded was assumed to be permanently out of reach. Now, researchers at the Universities of Cambridge and Oxford have developed a sound-based method to move back through the family tree of languages that stem from PIE. They can simulate how certain words _____ when they were spoken 8,000 years ago. Remarkably, at the _____ of the technology is the statistics of shape. 'Sounds have shape,' explains Professor John Aston, from Cambridge's Statistical Laboratory. 'As a word is uttered it vibrates air, and the shape of this soundwave can be measured and turned into a series of numbers. Once we have these stats, and the stats of another spoken word, we can start asking how similar they are and what it would take to shift from one to another.'

Option:-

- 1) therefore, until, where, although
- 2) would have sounded, would sound, have sounded, sound
- 3) cost, heart, end, moment

Answer: although, would have sounded, heart



94) Gunpowder and fireworks might have been invented independently in Europe, but they probably reached Europe via the Mongols, who spread west from China as far as central Europe by the mid-13th century. In 1267, the English monk Roger Bacon _____ what were very likely firecrackers, which he compared with the flash of lightning and growl of thunder. In 1377 fireworks accompanied a religious mystery play by the bishop's palace in Vicenza, and were soon used to add sparks to figures of doves, representing the Holy Spirit, or angels, made to ascend and descend from the heavens on ropes. By the 15th century, rockets were being used in Europe for military and peaceful purposes. Italian and Spanish cities in particular _____ fireworks for outdoor celebrations. The Italian metallurgist Vannoccio Biringuccio described festivities in Florence and Siena for feast days. These included 'girandoles' or whirling decorated wheels packed with fireworks which were _____ a rope hung across a street or square. Fireworks were also used in the German lands. An elaborate color-painted book _____ the Schembart carnival of Nuremberg, which saw men dressed in brightly-colored costumes parading through the town. Often these included some kind of pyrotechnics. One image shows a man wearing a hat in the form of a castle with fireworks and smoke shooting up from the towers, and interestingly, what looks like a smoking artichoke.

Option:-

- 1) recorded seeing, recorded seen, recording seeing, has recorded seeing
- 2) initially using, began use, began to use, beginning to using
- 3) suspending by, suspended within, suspended from, suspending from
- 4) cultivates, commemorates, calculates, communicates

Answer: recorded seeing, began to use, suspended from, commemorates



95) Mischel is the creator of the marshmallow test, one of the most famous experiments in the history of psychology, which is often cited as evidence of the importance of self-control. In the original test, which was administered at the Bing Nursery School, at Stanford, in the nineteen-sixties, Mischel's team would present a child with a treat (marshmallows were just one option) and tell her that she could either eat the one treat _____ or wait alone in the room for several minutes until the researcher returned, at which point she could have two treats. The promised treats were always visible and the child knew that all she had to do to stop the agonizing _____ was ring a bell to call the experimenter back--although in that _____, she wouldn't get the second treat. The longer a child delayed gratification, Mischel found--that is, the longer she was able to wait--the better she would fare later in life at numerous measures of what we now call executive function. She would _____ better academically, earn more money, and be healthier and happier. She would also be more likely to avoid a number of negative outcomes, including jail time, obesity, and drug use.

Option:-

- 1) ironically, impressively, immediately, imaginatively
- 2) sleep, wait, walk, get
- 3) quantity, case, span, consumption
- 4) slump, heave, slumber, perform

Answer: immediately, wait, case, perform

96) We now know through the work of neuroscientists that the human brain is wired to mimic other people, and this mimicry involves actual involuntary physiological _____ in the observer. Human beings tend to _____ actions that they see. Physiologically, our brains include mirror neurons, which _____ to actions that are seen as if we are doing the action ourselves. It is largely an



unconscious and automatic experience. When we hear people speak, observe their vocal _____, watch their posture, gestures, and facial expressions, etc., neural networks in our brains are stimulated by the 'shared representations' generating feelings within us that _____ the experience of those we are observing.

Option:-

- 1) emotion, experience, expression, expectation
- 2) prevent, imitate, limit, discipline
- 3) recover, refer, react, lead
- 4) appearances, nuances, volumes, shapes
- 5) circle, multiply, reflect, subscribe

Answer: experience, imitate, react, nuances, reflect

97) Bees and flowers have evolved together for millions of years. It is a mutual relationship where the bee is provided with food (nectar or pollen) and the stationary plant gets to _____ its pollen (sperm cells) to other plants of the same species. For the plant this is much more _____ than using wind to reach the goal. Consequently, over millions of years plants have developed flowers with increasingly specialized features to attract visiting bees who, in turn, would distribute pollen grains and optimize the plant's reproductive _____. Simultaneously, bees underwent physiological, behavioral and structural adaptations to take advantage of the nutritional benefits offered by flowering plants. This is an example of a _____ relationship.

Option:-

- 1) copy, disperse, transplant, extract
- 2) reluctant, efficient, apparent, frequent
- 3) accumulations, capabilities, sequences, criteria
- 4) repeated, parallel, co-evolutionary, hostile



Answer: disperse, efficient, capabilities, co-evolutionary

98) We define paraphrasing as putting a passage from an author into your own words. However, what are your own words? How different must your paraphrase be from the _____? The answer is it should be considerably different. The _____ point of paraphrasing is to show you have read and understood another person's ideas, and can summarize them in your own writing style rather than _____ their phrases. If you just change a few words, or add some bits of your own to an _____ reproduced passage, you will probably be penalized for _____. You should aim to condense and _____ a writer's ideas and describe them _____ different sentence structures and expressions.

Option:-

- 1) original, conventional, concept, rule
- 2) whole, single, odd, singular
- 3) borrowing, renewing, changing, charging
- 4) otherwise, unnecessarily, either, often
- 5) donation, plagiarism, compilation, contribution
- 6) fix, simplify, concoct, mix
- 7) to use, using, used, use

Answer: original, whole, borrowing, otherwise, plagiarism, simplify, using

99) Roads of rails called Wagonways were being used in Germany as - _____ as 1550. These _____ roads consisted of wooden rails over which horse-drawn wagons or carts moved with greater ease than over dirt roads. Wagonways were the beginnings of modern railroads. _____ 1776, iron had replaced the wood in the rails and wheels on the carts. Wagonways evolved into Tramways and spread throughout Europe. Horses, however, still provided all the pulling power. In 1789, Englishman William Jessup designed the first wagons with



flanged wheels. The _____ was groove that allowed the wheels to better _____ the rail, this was an important design that carried over to later locomotive.

Option:-

2. early, probably, easily, year
3. foundation, principles, primitive, primary
4. as, in, since, by
5. flare, flange, fake, flag
6. grip, grape, grasp, grime

Answer: early, primitive, by, flange, grip

100) Allergies are abnormal immune system reactions to things that are typically harmless to most people. When you're allergic to something, your immune system _____ believes that this substance is harmful to your body. Substances that cause allergic reactions such as certain foods, dust, plant pollen, or medicines are known as allergens. In an attempt a _____ the body, the immune system produces the _____ to that allergen. Those antibodies then cause certain cells in the body to _____ chemicals into the bloodstream, one of which is histamine. The histamine then _____ on the eyes, nose, throat, lungs, skin, or gastrointestinal tract and causes the symptoms of the allergic reaction. Future exposure to that same allergen will trigger this antibody response again. This means that every time you come into contact with that allergen, you'll have some form of allergy symptoms.

Option:-

1. mistakenly, actively, truly, masterly
2. harm, protect, protection, pretend
3. antibodies, antihistamine, antiserum, ant poison
4. keep, release, react, remain



5. into, acts, fact, act

Answer: mistakenly, protect, antibodies, release, acts

101) During the day, the sun heats up both the ocean surface and the land. Water is a good absorber of the energy from the sun. The land absorbs much of the sun's energy as well. However, water heats up much more slowly than land and so the air above the land will be _____ compared to the air over the ocean. The warm air over the land will rise throughout the day, causing low pressure at the surface. Over the water, high surface pressure will form because of the colder air. To _____, the air will sink over the ocean. The wind will blow from the higher pressure over the water to lower pressure over the land causing the sea breeze. The sea breeze strength will vary depending on the temperature _____ between the land and the ocean.

Option:-

1. warmer, more frigid, freezer, more sizzling
2. cover, compensate, concentrate, precipitate
3. variation, distinction, differentiation, difference

Answer: warmer, compensate, difference

102) Sportswomen's records are important and need to be preserved. And if the paper records don't _____, we need to get out and start interviewing people, not to put too fine a _____ on it, while we still have a _____. After all, if the records aren't kept in some form or another, then the stories are _____ too.

Option:-

1. exist, has, too
2. have, point, put
3. chance, force, paper
4. appear, pending, lost



Answer: exist, point, chance, lost

103) The world's atmosphere is forever on the move. Wind is air in motion. Sometimes air moves slowly, giving a _____ breeze. At other times it moves rapidly creating gales and hurricanes. Gentle or fierce, wind always starts in the same way. As the sun moves through the sky, it heats up some parts of the sea and land more than others. The air above these _____ spots is warmed, becomes lighter than the surrounding air, and begins to rise. Elsewhere, cool air sinks, because it's heavier. Winds blow because- air squeezed out by sinking, cold air is sucked in under rising, warm air. Winds will blow wherever there is a _____ in air temperature and pressure, always flowing from high to low pressure. Some winds blow in one place, and have a local name – North America's chinook and France's mistral. Others are part of a huge circulation pattern that sends winds over the _____ globe.

Option:-

1. Heavy, pressure, gentle,
2. fierce, weighted, hot,
3. difference, expected, heavier
4. entire, workers, balance

Answer: gentle, hot, difference, entire

104) Evidence for a genetic basis of antisocial behavior stems from several different lines of research. First, behavioral genetic studies of twins and adoptees have demonstrated that _____ plays a role in antisocial behavior, including various forms of aggression and criminality, by finding greater concordance for such behavior in genetically _____ individuals, compared to non-relatives living in the same environment. Second, various correlates of antisocial behavior, including personality factors such as impulsivity, sensation seeking, risk-taking, and callous-unemotional traits, are



known to be at least partly genetically _____. Third, psychiatric outcomes related to antisocial behavior, including antisocial personality disorder, gambling, and substance use and abuse, have also been _____ in genetically informative designs, and each of these has demonstrated significant genetic links.

Option:-

1. parenting, environment, heredity, culture
2. identical, related, diverse, idealized
3. delivered, managed, directed, influenced
4. inferred, investigated, inspected, integrated

Answer: heredity, related, influenced, investigated

105) A crime is generally a _____ act that results in harm, physical or otherwise, toward one or more people, in a manner prohibited by law. The determination of which acts are to be considered criminal has varied historically and continues to do so among cultures and nations. When a crime is committed, a process of discovery, trial by judge or jury, _____, and punishment occurs. Just as what is considered criminal varies between jurisdictions, so does the punishment, but elements of _____ and deterrence are common.

Option:-

1. discreet, deliberate, demure, deliberative
2. convicts, conviction, convictive, controversy
3. restitution, constitution, reticulation, rehabilitation

Answer: deliberate, conviction, restitution

106) Drive down any highway and you'll see a proliferation of chain restaurants—most likely, if you travel long and far enough, you'll see McDonald's golden arches as well as signs for Burger King, Hardee's and Wendy's the "big four" of burgers. Despite its name, though Burger King has fallen short of _____ the



burger crown, unable to surpass market leader McDonald's No. 1 sales status. Always the bridesmaid and never the bride, Burger King remains No. 2. Worse yet, Burger King has experienced a six-year 22 percent decline in customer traffic, with its overall quality rating dropping while ratings for the other three _____ have increased. The decline has been _____ to inconsistent product quality and poor customer service. Although the chain tends to throw advertising dollars at the problem, an understanding of Integrated Marketing Communication theory would suggest that internal management problems (nineteen CEOs in fifty years) need to be _____ before a unified, long-term strategy can be put in place. The _____ of _____ in brand image and messages, at all levels of communication, has become a basic tenet of IMC theory and practice. The person who takes the customer's order must communicate the same message as Burger King's famous tagline, "Have it your way," or the customer will just buzz up the highway to a chain restaurant that seems more consistent and, therefore, more _____.

Option:-

1. claiming, winning, getting, filing
2. participants, contestants, contenders, members
3. dedicated, attributed, contributed, due
4. rectified, realized, recognized, ratified
5. importance, principal, significant, result
6. quality, service, consistency, management
7. available, reputable, quality, reliable

Answer: claiming, contenders, attributed, rectified, importance, consistency, reliable



107) In a sequence of bestsellers, including *The Language Instinct* and *How the Mind Works*, Pinker has argued that swathes of our mental, social and emotional lives may have _____ as evolutionary adaptations, well suited to the lives our ancestors eked out on the Pleistocene savannah. Sometimes it seems as if nothing is _____ from being explained this way. Road rage, adultery, marriage, altruism, our tendency to reward senior executives with corner offices on the top floor, and the small number of women who become mechanical engineers – all may have their _____ in natural selection, Pinker claims. The controversial implications are obvious: that men and women might _____ in their inborn abilities at performing certain tasks, for example, or that parenting may have _____ influence on personality.

Option:-

1. Physical, tasks, originated,
2. immune, mental, implied
3. implications, instincts, roots,
4. differ, explained, single
5. improved, little, last

Answer: originated, immune, roots, differ, little

108) No one in Parliament would know better than Peter Garrett what largesse copyright can _____ so it may seem right that he should announce a royalty for artists, amounting to 5 per cent of all sales after the original one, which can go on giving to their families for as much as 150 years. But that ignores the truth that copyright law is a _____, recently exacerbated by the Free Trade Agreement with the US which required extension of copyright to 70 years after death. Is it scandalous that really valuable copyrights end up in the ownership of corporations (although Agatha Christie's no-doubt worthy great-grandchildren are still _____ the benefits of West End success for her



who dunnits and members of the Garrick Club enjoy the continuing fruits of A.A. Milne's Christopher Robin books)? No. The scandal is that been peasants politicians have attempted to appear cultured by creating private assets which depend on an act of Parliament for their existence and by giving away much more in value than any public benefit could _____. In doing so they have betrayed.

Option:-

1. loyalty, floaty, royalty, confer
2. humiliation, slander, insult scandal
3. reaching, garnishing, reaping, gaining
4. testify, justify, satisfy, rubify

Answer: confer, scandal, reaping, justify

109) The space work for an astronaut can be inside or outside, inside they can monitor machines and the work is carried out alongside the craft. They also need to make sure the _____ Travel _____ the craft, they can see how the seeds react in the space. Some seeds company send seeds to them to investigate how seeds change their biological character. When _____ the craft, they can set up experiments or clean _____ the space rubbish.

Option:-

1. Inhale, travel, Space,
2. Outside, moved, investigate
3. on, outside, carried
4. up, express, why

Answer: space, outside, outside, up

110) Egg-eating snakes are a small group of snakes eat only eggs as part of their _____. Some eat only small eggs which are _____ to eat, while some snakes eat bird's eggs, which they have to swallow _____, as the snake has no



teeth. Instead, these snakes have _____ that stick out from the backbone. The spines crack the egg _____ as it passes through the throat. Once the egg is punctured, muscles in the snake's body work in waves to squeeze out the contents, which then move down into the stomach. The snake then forces the shell back into its mouth by bending its body into an 'S' shape. The shell is now drained and flattened into a compact shape. Egg eating snakes sometimes have to go for a long time without any food. So, they eat as many eggs as they can when they get them!

Option:-

1. Eat, stick, diet
2. moved, easy, swallow
3. whole, part, side,
4. money, payroll, spines
5. open, new, instant

Answer: diet, easy, whole, spines, open

111) Joseph Engel Berger, a pioneer in industrial robotics, once marked, "I can't _____ a robot, but I know one when I see one." If you consider all the different _____ people call robots, you can see that it's nearly impossible to come up with a _____ definition. Everybody has a different _____ of what constitutes a robot.

Option:-

1. Call, constitutes, define,
2. machines, contact, robot
3. definition, comprehensive, make
4. machine, idea, tools

Answer: define, machines, comprehensive, idea



112) Stress that tense feeling often connected to having too much to do, too many _____ to pay and not enough time or money is a common emotion that knows _____ borders. About three-fourths of people in the United States, Australia, Canada, France, Germany, Italy South Korea and the United Kingdom say they experience stress on a daily basis, according to a _____. Those anxious feelings are even more intense during the holidays. Germans feel stress more _____ than those in other countries polled. People in the US _____ financial pressure as the top worry. About half the people in Britain said they frequently or sometimes felt life was beyond their control, the highest level in the 10 countries surveyed.

Option:-

1. practice, bills, money, time
2. printed, solid, dash, few
3. series, news, polling, pants
4. intensely, openly, early, traditionally
5. enjoyed, cited, created, excited

Answer: few. Bills, polling, intensely, cited

113) Two decades ago, Kashmiri houseboat-owners rubbed their hands every spring at the prospect of the annual _____ of tourists. From May to October, the hyacinth-choked _____ of Dal Lake saw flotillas of vividly painted shikaras carrying Indian _____ their skills, as did purveyors of anything remotely embroidered while the houseboats initiated by the British Raj provided unusual accommodation. The economy boomed. Then, in 1989, everything changed. Hindus and countless Kashmiri business people bolted, at least 35,000 people were killed in a decade, the lake stagnated and the houseboats rotted. Any foreigners _____ there risked their _____ – proved in 1995 when five young Europeans were kidnapped and murdered.



Option:-

1. Influx, income, invasion, offense
2. water, people, shops, ships
3. venturing, provision, condition, reservation
4. lives, destiny, savings, property

Answer: influx, waters, venturing, lives

114) Another way to looking at personality is the behaviorist approach according to the behaviorists, the inner _____ of the consciousness are not important. Instead, they believed that our behaviors, and therefore our _____ are learned primarily through our _____. The theories of behaviorism arose through _____ largely on animals in which behaviors were learned through carefully controlled _____.

Option:-

- 1) inner, facts, practice
- 2) personalities, controlled, finally
- 3) experiences, behaviorism, primarily
- 4) experiments, pace, domain
- 5) importance, stimuli, predict

Answer: facts, personalities, experiences, experiments

115) In search of lessons to _____ in our own careers, we often try to emulate what effective leaders do. Roger Martin says this focus is misplaced, because moves that work in one context may make little sense in another. A more productive, though more difficult, approach is to look at how such leaders _____. After extensive interviews with more than 50 of them, the author discovered that most are _____ thinkers - that is, they can hold in their heads two opposing ideas at once and then come up with a new idea that contains elements of _____ but is superior to both.



Option:-

- 1) confront, use, meet, apply
- 2) act, launch, behave, think
- 3) indispensable, integrity, responsible, integrative
- 4) every, all, which, each

Answer: apply, think, integrative, each

116) Promoting good customer service must start at the top. If management doesn't realize how important this _____ of their business is, they will be at an instant _____ in their industry. Good customer response Equates to loyal customers, which are the cornerstone of any successful business. No matter how money you invest in your _____, if you don't much have the fundamental elements of your business right, it's _____ money.

Option:-

- 1) Aspect, sides, slides, way
- 2) Disadvantages, advantages, benefits, consequence
- 3) Equates, direct, ready, equal
- 4) Marketing, service, mind, experience
- 5) Wasted, settled, earned, rendered

Answer: aspect, disadvantages, marketing, wasted

117) Teens write for a variety of reasons—as part of a school assignment, to _____ a good grade, to stay in touch with friends, to share their artistic creations with others or simply to put their thoughts to paper (whether virtual or otherwise). In our focus groups, teens said they are motivated to write when they can _____ topics that are relevant to their lives and interests, and report greater enjoyment of school writing when they have the opportunity to write creatively. Having teachers or other adults who challenge them, _____ them with interesting curricula and give them detailed feedback



also serves as a motivator for teens. Teens also _____ writing for an audience motivates them to write and write well.

Option:-

- 1) Avoid, get, maintain, stay
- 2) Debate, communication, use, select
- 3) Blame, meet, educate, present
- 4) Report, learn, regard, provide

Answer:- get, select, present, report

118) An important corollary of this focus on language as the window to legal epistemology is the central _____ of discourse to law and other sociocultural processes. In _____, the ideas that people hold about how language works (linguistic ideologies) _____ with linguistic structuring to create powerful, often _____ effects. In recent years, linguistic anthropologists have made much progress in developing more precisely analytic tools for tracking those effects.

Option:-

- 1) Implements, linguistic, role,
- 2) particular, disclosure, speech
- 3) facts, combine, tools
- 4) ideas, unconscious, discourse

Answer:- role, particular, combine, unconscious

119) This is a challenging time for UK students, and we should be making their transition from university to the globalized world easier, not harder. The British Academy has voiced it's _____ over the growing language deficit for some years, and the gloomy statistics speak for themselves. We need _____ action if we are remedying this worsening situation. The _____ of the problem lie within schools, but Vice Chancellors have the power to drive



change and help their students recognize the importance of learning languages, and about the countries where they are spoken and the cultures they sustain. We _____ them to act and protect this country's long term economic, social and cultural standing.

Option:-

1. Published, concern, recognize
2. decisive, transformation, voiced
3. roots, standing, supplying
4. notice, traditions, urge

Answer:- concern, decisive, roots, urge

120) Those were his halcyon days when his music was constantly heard in Venice, and his influence _____. He spent much of his time on the road, performing and _____ productions of his music. In Germany, Bach studied Vivaldi's _____ (copied them for performance and _____ some for other instruments.

Option:-

- 1) prospered, persevered, blanketed, flinted
- 2) overseeing, overturning, outweighing, outgoing
- 3) sheet, paper, notes, scores
- 4) assembled, allured, arranged, abandoned

Answer:- blanketed, overseeing, scores, arranged

121) Paris is very old— there has been a settlement there for at least 6000 years and its shape has been determined in part by the River Seine, and in part by the edicts of France's rulers. But the great boulevards we admire today are relatively new, and were constructed to prevent any more barricades _____ by the rebellious population; that work was carried out in the middle 19th century. The earlier Paris had been in part a maze of narrow



streets and alleyways. But you can imagine that the work was not only highly expensive, but caused great distress among the half a million or so whose houses were _____ razed, and whose neighborhoods disappeared. What is done cannot usually be undone, especially when buildings are torn _____.

Option:-

- 1) Creating, create, being created, having been created
- 2) Simply, merely, only, justly
- 3) down, up, apart, afar

Answer: being created, simply, down

122) The rest of the universe appears to be made of a mysterious, invisible _____ called dark matter and a force that _____ gravity known as dark energy. Scientists have not yet _____ dark matter directly. It doesn't interact with baryonic matter, and it's completely invisible to light and other forms of electromagnetic radiation, making dark matter impossible to detect with current instruments. But scientists are confident it exists because of the _____ effects it appears to have on galaxies and galaxy _____.

Option:-

- 1) Substance, material, property, subject
- 2) Repels, beats, gathers, fights against
- 3) Looked, tested, smelled, observed
- 4) Gravity, gravitational, constitutional, national
- 5) Balls, flocks, clusters, bunches

Answer: substance, repels, observed, gravitational, clusters

123) In reality, however, the causes of truancy and _____ are diverse and multi-faceted. There are as many causes of non-attendance as there are non-attenders. Each child has his/her own _____ story, and whilst there



may often be certain identifiable factors in common, each non-attending child demands and _____ an individual response, tailored to meet his/her individual needs. This applies _____ to the 14-year-old who fails to attend school because a parent is terminally ill, the overweight 11-year-old who fails to attend because he is _____ about changing for PE in front of peers, the 15-year-old who is 'bored' by lessons, and to the seven-year-old who is teased in the playground because she does not wear the latest designer label clothes.

Option:-

1. non-compliance, non-sense, non-attendance, non-binding
2. unorthodox, unique, novel, prolific
3. deserves, earns, combats, dissects
4. commonly, equally, instantly, gorgeously
5. ashamed, shy, embarrassed, embedded

Answer: non-attendance, unique, deserves, equally, embarrassed

124) Three degrees does not sound like much, but it _____ a rise in temperature compared with the global heating that occurred between the last ice age, some 15,000 years ago, and the warmth of the eighteenth century. When Earth was cold, giant glaciers sometimes extended from the polar regions as far south as St Louis in the US and the Alps in Europe. Later this century when it is three degrees hotter glaciers everywhere will be melting in a climate of often _____ heat and drought, punctuated with storms and floods. The _____ for humanity could be truly horrific; if we fail to act swiftly, the full impact of the plants and animals with whom we share Earth. In a worst-case scenario, there might - in the twenty-second century - be only a remnant of humanity eking out a _____ existence in the polar regions and the few remaining oases left on a hot and arid Earth.



Option:-

- 1) proves, undermines, represents, explores represents,
- 2) tolerate, generate, intense unbearable,
- 3) evolution, aims, reasons consequences
- 4) diverse, direct, dilute, diminished

Answer: represents, unbearable, consequences, diminished

125) Clones of an Eastern cottonwood (*Populus deltoids*) in the Bronx and other city spots grew to double the biomass of clones _____ outside small towns upstate or on Long Island, says Jillian Gregg, now of the Environmental Protection Agency's western ecology division in Corvallis, Ore. The growth gap comes from ozone damage, she and her New York colleagues report. Ozone chemists have known that concentrations may spike skyscraper high in city air, but during a full 24 hours, rural trees actually get a higher cumulative ozone exposure from urban pollution that _____ in and lingers. A series of new experiments now shows that this hang-around ozone is the _____ factor in tree growth, the researchers say in the July 10 *Nature*. "This study has profound importance in showing us most vividly that rural areas pay the _____ for urban pollution," says Stephen R Long of the University of Illinois at Urbana-Champaign. "This work should be a wake-up call," he adds.

Option:-

- 1) planted, produced, protected, preserved
- 2) breezes, blows, puffs, set
- 3) surprising, frightening, overwhelming, astonishing
- 4) lessons, price, effect, cost

Answer: planted, blows, overwhelming, price

126) Stress that tense feeling often connected to having too much to do, too many _____ to pay and not enough time or money – is a common emotion that



knows _____ borders. About three-fourths of people in the United States, Australia, Canada, France, Germany, Italy, South Korea and Britain reported experiencing stress on a daily basis, according to AP-Ipsos _____. Anxious feelings were more intense during the holidays. Germans feel stress more _____ than those in other countries polled. People in the United States _____ financial pressures as the top worry. About half the people polled in Britain said they frequently or sometimes felt that life was beyond their control, the highest level in the 10 countries surveyed.

Option:-

- 1) practices, bills, money, time
- 2) printed, solid, dash, few
- 3) series, news, polling, pants
- 4) intensely, openly, early, traditionally
- 5) enjoyed, cited, created, exited

Answer; bills, few, polling, intensely, cited

127) Our analysis of the genetic structure of northern spotted owls across most of the range of the subspecies allowed us to test for genetic discontinuities and identify landscape features that influence the subspecies' genetic structure. Although no _____ genetic breaks were found in northern spotted owls, _____ landscape features were important in structuring genetic variation. Dry, low elevation valleys and the high elevation Cascade and Olympic Mountains restricted gene flow, while the lower Oregon Coast Range _____ gene flow, acting as a 'genetic corridor.' The Columbia River did not act as a barrier, _____ owls readily fly over this large river. Thus, even in taxa such as northern spotted owls with potential for long-distance dispersal, landscape features can have an important impact on gene flow and genetic structure.

Option:-



- 1) distinct, distinguished, different, divergent
- 2) specific, several, separate, a little
- 3) protected, prevented, impeded, facilitated
- 4) arguing, suggesting, insisting, sticking

Answer: distinct, several, facilitated, suggesting

128) Want to know what will make you happy? Then ask a total stranger – or so says a new study from Harvard University, which shows that another person’s experience is often more _____ than your own best guess. The study, which appears in the current issue of Science, was led by Daniel Gilbert, professor of psychology at Harvard and author of the 2007 bestseller “Stumbling on Happiness,” along with Matthew Killingsworth and Rebecca Eyre, also of Harvard, and Timothy Wilson of the University of Virginia. “If you want to know how much you will enjoy an experience, you are better off knowing how much someone else enjoyed it than knowing anything about the experience itself,” says Gilbert. “Rather than closing our eyes and _____ the future, we should examine the experience of those who have been there. Previous research in psychology, neuroscience, and behavioral economics has shown that people have difficulty predicting what they will like and how much they will like it, which _____ them to make a wide variety of poor decisions. Interventions aimed at _____ the accuracy with which people imagine future events have been generally unsuccessful.

Option:-

- 1) positive, predictable, informal, informative
- 2) imitating, predicting, visualizing, imagining
- 3) leads, compels, requires, forces
- 4) reducing, improving, enhancing, controlling

Answer: informative, imagining, leads, improving



129) Nature is no longer an alien _____, but _____ something immediately beautiful, an exuberant _____ with space for us to join in. Bird melodies have always been called songs for a reason. As long as we have been listening, people have _____ there is music coming out of those scissoring beaks.

Option:-

- 1) enigma, alien, mystery, alienate
- 2) however, moreover, additionally, instead
- 3) composition, product, opus, effort
- 4) assumed, presumed, considered, consume

Answer:- enigma, instead, opus, presumed

130) The trigger point causes the rest of the fiber segments to be _____ to capacity. It becomes a tight band. Normally the regular contracting and releasing of these little segments circulates blood in the capillaries that supply them the segments with their nutrients. When they hold this _____ blood flow is stopped to that are, there is not an oxygen supply and waste products are not _____. The trigger point then sends out pain signals until the trigger point is put in a position of rest again.

Option:-

- 1) strengthened, tightened, contracted, stretched
- 2) concentration, contraction, contamination, contribution
- 3) pulled out, pushed out, dragged out, torn away

Answer:- stretched, contraction, pushed out



READING : FILL IN THE BLANKS

1. Although not written about extensively, a few individuals have considered the concept and act of cheating in history as well as _____ culture. J. Barton Bowyer writes that cheating 'is the advantageous _____ of perceived reality. The advantage falls to the cheater because the cheated person misperceives what is assumed to be the real world'. The cheater is taking advantage of a person, a situation, or both. Cheating also _____ the 'reality' or what others call 'deception'. Deception can involve hiding the 'true' reality or 'showing' reality in a way intended to deceive others.

Option: contemporary, meet, who, distortion, cover, shade, but, involves

Answer: contemporary, distortion, involves

2. Genius, in the popular conception, is inextricably tied up with precocity - doing something truly creative, we're inclined to think, requires the freshness and exuberance and energy of youth. Orson Welles made his masterpiece, "Citizen Kane," at twenty-five. Herman Melville wrote a book a year _____ his late twenties, culminating, at age thirty-two, with "Moby-Dick." Mozart wrote his breakthrough Piano Concerto No. 9 in E-Flat-Major at the age of twenty-one. In some creative forms, like lyric poetry, the _____ of precocity has hardened into an iron law. How old was T. S. Eliot when he wrote "The Love Song of J. Alfred Prufrock" ("I grow old ... I grow old")? Twenty-three. "Poets peak young," the creativity researcher James Kaufman maintains. Mihály Csíkszentmihályi, the author of "Flow," agrees: "The most creative lyric verse is believed to be that written by the young." According to the Harvard psychologist Howard Gardner, a leading _____ on creativity, "Lyric poetry is a



_____ where talent is discovered early, burns brightly, and then peters out at an early age."

Option: through, by, figure, importance, living, domain, authority, dominance

Answer: through, importance, authority, domain

3. With about one and a half billion non-native speakers, English has become the world's own language. Such _____ has its downside, of course. There are now about 6,800 languages left in the world, compared with perhaps _____ that number back at the dawn of agriculture. Thanks, in _____ to the rise of über languages, most importantly English, the remaining languages are now dying at the _____ of about one a fortnight. Want to learn Busuu, anyone? Then you'd better head to Cameroon fast, before one of the language's last eight speakers kicks the bucket (as the Busuu-nese presumably doesn't say).

Option: major, important, dominance, twice, seven, part, pack, rate, increase

Answer: dominance, twice, part, rate

4. While many mothers-to-be are advised about the _____ of breastfeeding, what they may not be told is that the effects go well beyond physical health. A new study finds babies breastfed for long periods have better performance on intelligence tests, greater school achievement, and higher monthly incomes as 30- year-olds.

While past research has found higher intelligence _____ among breastfed babies, what is so significant about this study is that the researchers were able to collect more complete information on breastfeeding duration and also followed for a longer period. And, by using a population-based birth _____, the breast-feeding practices had no association with income level. Most of the evidence of higher intelligence test scores among breastfed babies comes from high-income countries, where middle-class and higher-class



mothers are more likely to breastfeed their babies than lower income mothers- certainly in the United States, breastfeeding rates _____ this trend. With evidence coming from first-world countries 'Where breastfeeding is positively associated with higher socioeconomic status'. Horta explained, 'There is always a question of whether the effect that has been observed in other studies is a consequence of breastfeeding by itself or has the result been _____ by socioeconomic status.' Specifically, higher income babies are most likely eating better quality food and this could be impacting IQ test scores.

Option: addition, benefits, lack, scores, cohort, everyone, reflect, confounded

Answer: benefits, scores, cohort, reflect, confounded

5. New favorable traits evolve when genetic mutations arise that offer a survival edge. As the survivors of each generation pass on those beneficial mutations, the mutations and _____ adaptive traits become more common in the general population.

Though it may take millions of years for complex traits _____, say allowing humans to walk on two legs, evolution itself happens with each generation as adaptive mutations become more frequent in the population. The genomic revolution has allowed biologists to see the natural selection process _____ by making the genetic blueprint of hundreds of thousands of people available for comparison. By tracking the relative rise and fall of specific mutations _____ generations of people, researchers can infer which traits are spreading or dwindling.

Option: there, it, their, to fall, to evolve, high, in action, resolve, across

Answer: their, to evolve, in action, across

6. The fall of smallpox began with the realization that _____ of the disease were _____ for the rest of their lives, this led to the practice of variolation – a



process of exposing a healthy person to infected material from a person with smallpox in the hopes of producing a mild disease that _____ immunity from further infection. The first written account of variolation describes a Buddhist nun practicing around 1022 to 1063 AD. By the 1700's, this method of variolation was _____ practice in China, India, and Turkey, in the late 1700's European physicians used this and other methods of variolation, but reported "devastating" results in some cases. Overall, 2% to 3% of people who were variolated died of smallpox, but this practice decreased the total number of smallpox _____, by 10-fold.

Option: survivors, patients, immune, provided, forsaken, common, recuperation, fatalities

Answer: survivors, immune, provided, common, fatalities

7. After an absence of more than 50 years, the gray wolf (*Canis lupus*) once again runs beneath the night skies of Yellowstone National Park. At 3:45 pm on March 21st 1995, the first of three groups of gray wolves (also known as the timber wolf) were released from _____ acclimation pens at Crystal Creek within Yellowstone National Park. The wolf release plan, _____ in an environmental impact statement (EIS) in 1992-1994, is to restore wolves to Yellowstone and central Idaho by establishing experimental populations of gray wolves in both areas. The goal for Yellowstone is to establish 10 packs wolves reproducing in the area for three _____ years by the year 2002. Restoring wolves to Yellowstone is in keeping with national park goals to perpetuate all native species and their natural interactions with their environment. As with other park wildlife programs, management emphasizes _____ human impact on natural animal population dynamics. Yellowstone National Park is a wilderness and wildlife refuge in the United States.

Option: Additional, minimizing, regular, consecutive, involved, fenced



Answer: fenced, involved, consecutive, minimizing

8. You can study anywhere. Obviously, some places are _____ than others. Libraries, study lounges or private rooms are best. Above all, the places you choose to study should not be _____. Distractions can _____, and the first thing you know, you're out of time and out of luck. Make choosing a good physical environment a _____ of your study _____.

Option: better, habits, member, show, part, traditions, build up, distracting, establish, attracting

Answer: better, distracting, build up, part, habits

9. Dolphins are _____ mammals found all over the world. There are many different species. They are well-known as intelligent _____) and seem to communicate with one another in _____ ways. Dolphins are sociable animals in that they live in groups. These can range in size from five to several hundred. They often _____ in groups and work together to capture the fish or squid they like to eat.

Option: strange, hunt, creatures, different, marine, learn, sophisticated

Answer: marine, creatures, sophisticated, hunt

10. Of the world's seven remaining species of marine turtles, almost all have been pushed to _____ levels. Hunting, habitat loss, plastics pollution, climate change, and accidentally being caught in fishing nets continue to threaten the _____ of these large and long-living creatures. Shell Beach, named after the shells that form its 90-mile _____, is a vital nesting ground for four of these marine turtle species.

Option: extinction, endangered, existence, engaged, extent

Answer: endangered, existence, extent

11. Many famous geographers and non-geographers have attempted to define the discipline in a few short words. The concept has also changed throughout



the ages, making it difficult to create a _____, universal geography definition for for such a dynamic and all-encompassing subject. After all, Earth is a big place with many facets to study. It affects and is affected by the people who live there and use its _____. But basically, geography is the study of the _____ of Earth and the people who live there, and all that encompasses.

Option: concise, facets, complex, resources, surface, options, methods

Answer: concise, resources, surface

12. Based on collaborative research by Arizona's top business school's this study of leadership and company performance uncovers the effects of leadership driven by _____, cost control, and maintaining market share, versus leadership driven more by balancing employee relations and development, customer or _____, and the welfare of the greater community. Together, Mary sully de Luque, assistant professor of Management and Research Fellow at Thunderbird School of Global Management and David Waldman, director of the Center for Responsible Leadership at ASU's school of Global management and Leadership, have found that maintaining a specific focus on earnings in _____ can have _____ on how a leader is viewed.

Option: profits, negative, effects, client, needs, decision, making

Answer: profits, client needs, decision making, negative effects

13. Secondary school can be a lonely place for _____ who don't have a best friend or a group of _____ friends. Young people will be more skilled in the art of making genuine friends (and keeping them) if they know how to be _____, are optimistic about life, have some basic social skills and have a relationship with a parent/care that includes _____ talk.

Option: assertive, grown-ups, assumptive, adolescents, apathetic, trusted, honest, royal basic



Answer: adolescents, trusted, assertive, honest

14. Pop mega-stars including Adele, Michael Jackson and Sir Elton John have all recorded music at the world-famous Metropolis Studios. Last year, the recording studios _____ compiling an album called 'Lost Songs', which features songs from relatively unknown musicians. First-year student Zak Taylor Fray decided to submit his song demo to be included in Volume Two of the Lost Songs album which was released this year, _____ he saw how successful Volume One had been. Zak 24, said: 'I found this competition when simply _____ the internet for songwriting competitions one day, and was lucky that there was still time to _____. It amazes me that people who have worked with

Option: set about, recorded, after, features, searching, included, saw, enter

Answer: set about, after, searching, enter

15. Changing English (Prediction) English has been changing throughout its lifetime and it's still changing today. For most of us, these changes are fine as long as they're well and truly in the past. Paradoxically, we can be _____ about word origins and the stories behind the _____ we find in our language, but we _____ a queasy distaste for any _____ that might be happening right under our noses. There are even language critics who are _____ that English is dying, or if not dying at least being progressively _____ through long years of mistreatment.

Option: experience, facets, complex, resources, convinced, damaged, change, structure, curious

Answer: curious, structure, experience, change, convinced, damaged

16. John Milton wrote in a wide range of genres, in _____ languages, and on an extraordinary range of subjects. His was a more general _____ than is



offered at Cambridge these days, and it continued after his seven years here, equipping him with the tools to write some of the most _____ literature ever seen, and to engage as a polemicist on many different social, political, and theological _____.

Options: several, questions, groundbreaking, simulations, mediocre, education

Answer: several, education, groundbreaking, questions

17. First, new ideas are the wheels of progress. Without them, stagnation _____. Whether you're a designer dreaming of another world, an _____ working on a new kind of structure, an _____ charged with developing a fresh business concept, an advertiser seeking a breakthrough way to sell your product, a fifth-grade teacher trying to plan a memorable school assembly program, or a volunteer looking for a new way to sell the same old raffle tickets, your ability to _____ good ideas is critical to your success.

Options: rise, assembly, changes, reigns, generate, engineer, executive

Answer: reigns, engineer, executive, assembly, generate

18. Many Utopias have been dreamed up through the ages. From Plato's Republic to Thomas More's Utopia and beyond, serious thinkers have _____ societies where people live in peace and harmony. Most of these imaginary worlds have things in common: everybody is equal and plays a part in the running of the society; nobody goes without the essentials of life; people live mostly off the land; often there is no money, and so on. Another thing they have in _____ is that, to the average person, they appear distasteful or unworkable since they do not take into account ordinary human nature or feelings. Architects have got in on the act, too. After the Great Fire of London, Christopher Wren drew up plans for a reconstruction of the whole



city, including _____ street widths. And in the 20th century there was Le Corbusier's Radiant City in which, if you weren't in a car or didn't have one, life would have been a nightmare. Also in the 20th century; another famous architect, Frank Lloyd Wright, _____ up a perfect city that got no further than the drawing-board. Wright believed that what was wrong with modern cities was, in his words, rent. Ideas, land, even money itself, had to be paid for. He saw this as a form of slavery and believed that modern city dwellers had no sense of themselves as productive individuals. Thus, Wright's city was to be made up of numerous individual homesteads, and the houses themselves were to be simple, functional and in _____ with the environment. Everyone would own enough land to grow food for himself and his family. No outsiders would be allowed to come between the citizen and what he produced, or to exploit both for money. Goods and services would all be _____, not bought and sold for profit.

Options: exchanged, ingredient, common, dreamed, precise, pieced, harmony, horizontal, envisioned

Answer: envisioned, common, precise, dreamed, harmony, exchanged

19. REIQ Gold Coast Zone chairman John Newlands said some southern suburbs were shaking off a poor reputation and _____ gentrification as wealthier residents moved in and displaced people from lower-income groups. "I think suburbs such as Miami have become _____ with people who previously would not have gone there," he said. "They have come into their own with new restaurants and markets _____ which has also made them more attractive." Developers have _____ on to the trend as well, with Sunland launching a \$62 million development, Magnoli Residences, in Palm Beach.

Options: collected, decreasing, experiencing, opening, cottoned,



overcoming, popular, rigid

Answer: experiencing, popular, opening, cottoned

20. The Sun provides the primary source of energy driving Earth's climate system, but its _____ have played very little role in the climate changes _____ in recent decades. Direct satellite _____ since the late 1970s show no net increase in the Sun's _____, while at the same time global surface temperatures have increased.

Options: outcome, varieties, inspected, variations, observed, measurements, output

Answer: variations, observed, measurements, output

21. Over the past two decades around a third of the world's mangrove swamps have been _____ for human use, with many turned into valuable shrimp farms. In 2007 an economic study of such shrimp farms in Thailand showed that the commercial profits per hectare were \$9,632. If that were the only factor, conversion would seem an excellent idea. However, proper _____ shows that for each hectare government subsidies formed \$8,412 of this figure and there were costs, too: \$1,000 for pollution and \$12,392 for losses to ecosystem services. These comprised damage to the supply of foods and medicines that people had taken from the forest, the loss of habitats for fish, and less buffering against storms. And because a given shrimp farm only stays _____ for three or four years, there was the additional cost of restoring them afterwards

Options: regenerating, study, estimated, accounting, productivity, productive, converted

Answer: converted, accounting, productive

22. Almost no one regards corn with suspicion. But the _____ can't be said for



humans' ingenious ability to engineer the plants we eat. Genetically modified(GM) crops are viewed with _____ hostility that they are barely grown in Europe. However, a new study by an independent group of scientists, who have done the most comprehensive _____ of the evidence so far, shows that our aversion to GM food is pointless , _____ and harmful to farmers.

Options: same, unscientific, sickness, those, such, some, terrific, review

Answer: same, such, review, unscientific

23. It sounds like something out of a science fiction movie - or nightmare millions of honeybees _____ dying off, their bodies never found. Scientists have _____ the phenomenon 'Colony Collapse Disorder', but they aren't _____ on the reason. Theories abound as to the _____ of the mass die-off, ranging from the unlikely (cellphones affecting bees navigational abilities) to the more _____ though still debated (widespread pesticide use).

Options: deliberating, suddenly, named, plausible, cause, possibility, authored, united

Answer: suddenly, named, united, cause, plausible

24. A surprising number of writers, even those who have thought of their writing as "self-expression," have sought a _____ from the tyranny of subjectivity, echoing Goethe's claim that "Every healthy effort is directed from the _____ to the outward world." From time to time others have risen to defend commitment, engagement, involvement. But, at least until _____, the predominant demand in this _____ has been for some sort of objectivity.

Options: pressure, extension, freedom, character, then, inward, century, recently



Answer: freedom, inward, recently, century

25. What is a country, and how is a country defined? When people ask how many countries there are in the world, they expect a simple answer. After _____, we've explored the whole planet, we have international travel, satellite navigation and plenty of global organizations like the United Nations, so we _____ really know how many countries there are! However, the answer to the question varies according to whom you ask. Most people say there are 192 countries, but others point out that there could be more like 260 of them. So why isn't there a straightforward answer? The problem _____ because there isn't a universally agreed definition of 'country' and because, for political reasons, some countries _____ it convenient to recognize or not recognize other countries.

Options: fear, should, arises, all, it, find, never, differs

Answer: all, should, arises, find

26. Your teenage daughter gets top marks in school, captains the debate team, and volunteers at a shelter for homeless people. But while driving the family car, she text-messages her best friend and rear-ends another vehicle. How can teens be so clever, accomplished, and responsible—and reckless _____? Easily, according to two physicians at Children's Hospital Boston and Harvard Medical School (HMS) who have been _____ the _____ structure and chemistry of the _____ brain. "The teenage brain is not just an adult brain with fewer miles on it," says Frances E. Jensen, a professor of neurology. "It's a paradoxical time of _____. These are people with very _____ brains, but they're not quite sure what to do with them."

Option: unique, sharp, development, at the same time, adolescent, exploring

Answer: at the same time, exploring, unique, adolescent, development, sharp



27. Now that doesn't mean that plainness is the only good style, or that you should become a _____. to spare, unadorned writing. Formality and ornateness have their place, and in _____. hands complexity can carry us on a dizzying, breathtaking journey. But most students, most of the time, should _____. to be sensibly simple, and to develop a _____. style of short words, active verbs, and relatively simple sentences _____. clear actions or identities. It's faster, it makes arguments easier to follow, it increases the chances a busy reader will bother to pay attention, and it lets you _____. more attention on your moments of rhetorical flourish, which I do not advise abandoning altogether.

Option: conveying, strive, competent, slave, baseline, focus

Answer: slave, competent, strive, baseline, conveying, focus

28. Almost all public spaces nowadays have advertisements in sight, and all forms of media, from newspapers to the cinema to the Internet, are _____. with adverts. This all-pervasive presence _____. the value of advertising to us. Without it, businesses of all types and sizes would _____. to inform potential customers about the products or services they provide, and consumers would be unable to make _____. assessments when looking for products to buy and services to use. Without advertising, the promotion of products and _____. that contribute to our physical and psychological well-being-medicines to treat minor ailments, insurance schemes to protect us, clothes, and cosmetics to make us look and feel better- would be _____. more _____. than it is. And without advertisements and the _____. represented in them, the world would be a far _____. place.

Option: struggle, duller, infinitely, reflects, filled, practices, problematic, informed, aspirations



Answer: filled, reflects, struggle, informed, practices, infinitely, problematic, aspirations, duller

29. Surely, the reality is what we think it is; reality is _____. to us by our experiences. To one _____ or another, this view of reality is one many of us hold, if only _____. I certainly find myself _____ this way in day-to-day life; it's easy to be _____ by the face nature _____ directly to our senses. Yet, in the decades since the first _____. Camus' Text, I've learned that modern science _____ a very different story.

Option: thinking, tells, revealed, reveals, encountering, seduced, extent, implicitly,

Answer: revealed, extent, implicitly, thinking, seduced, reveals, encountering, tells

30. More than simply putting flowers in a _____, ikebana is a disciplined art form in which nature and _____ are brought together. Contrary to the _____ of a particolored or multicolored _____ of blossoms, ikebana often emphasizes other areas of the _____, such as its stems and leaves, and puts emphasis on shape, line, and form. Though ikebana is an _____ of creativity, certain rules govern its form. The artist's intention behind each arrangement is shown through a piece's color _____, natural shapes, graceful lines, and the implied meaning of the arrangement.

Option: idea, arrangement, combinations, container, plant, expression, humanity

Answer: container, humanity, idea, arrangement, plant, expression, combinations

31. Two decades ago, Kashmiri houseboat-owners rubbed their hands every spring at the _____ of the annual influx of _____. From May to October,



the hyacinth-choked _____ of Dal Lake saw flotillas of vividly painted Shikaras carrying Indian families, boho westerners, young travelers, and wide-eyed Japanese. Carpet-sellers _____ their skills, as did purveyors of anything remotely embroidered while the house boats initiated by the British Raj provided unusual _____. Then, in 1989, separatists and Islamist militancy _____, and everything changed. Hindus and countless Kashmiri businesspeople _____, at least 35,000 people were killed in a decade, the lake stagnated, and the houseboats rotted. Any foreigners venturing there risked their _____, proved in 1995 when five young Europeans were kidnapped and murdered.

Option: waters, accommodation, bolted, prospect, honed, attacked, honed

Answer: prospect, tourists, waters, honed, accommodation, attacked, bolted

32. Away from the rumble of Shanghai's highways and the cacophony of the shopping districts, stroll downside streets filled with rows of tall brick _____. In the early evening or on a weekend morning, you'll hear the _____ of classical music _____ from a piano, played by a 10-year-old or a grandmother in her seventies. _____ down another alley toward concrete _____ and you'll hear Beethoven or Mozart flowing from a violin, or perhaps a cello, accordion, or flute. In China, classical music is _____ as mightily as the 1812 Overture.

Option: sound, skyscrapers, booming, drifting, houses, wander

Answer: houses, sound, drifting, wander, skyscrapers, booming

33. By 2025, government experts' say, America's skies will swarm with three _____ as" _____ planes, and not just the kind of traffic flying today. There will be _____ of tiny jets, seating six or fewer, at airliner _____, competing for space with remotely operated drones that need help



avoiding midair _____, and with commercially operated rockets carrying _____ and tourists into space.

Option: thousands, times, satellites, collisions, many, altitudes,

Answer: times, many, thousands, altitudes, collisions, satellites

34. An ice storm is a type of _____. when _____ rainfall comes down into the cold air and the water turned into _____. Once there is a serious ice storm when _____ than 16,000 households had a blackout _____ the ice storm as the ice storm would smash the cables.

Option: during, icy, weather, ice

Answer: weather, icy, ice, during

35. From a child's point of view, what is the purpose of TV advertising? Is advertising on TV done to give actors the opportunity to take a rest or _____ their _____? Or is it done to make people buy things? Furthermore, is the main _____ between programs and commercials that commercials are for real, whereas programs are not, or that programs are for kids and commercials for adults? As has been shown several times in the literature (e.g., Butter et al. 1981 Donohue, Henke, and Donohue 1980 Macklin 1983 and 1987 Robertson and Rossiter 1974 Stephens and Stutts 1982), some children are able to _____ between programs and commercials and are _____ of the intent of TV advertising, whereas others are not.

Option: difference, aware, practice, lines, distinguish

Answer: practice, lines, difference, distinguish, aware

36. Genius, in the popular conception, is inextricably tied up with precocity—doing something truly creative, we're inclined to think, requires the freshness and exuberance and energy of youth. Orson Welles made his masterpiece, "Citizen Kane," at twenty-five. Herman Melville wrote a book a



year _____. his late twenties, culminating, at age thirty-two, with "Moby-Dick." Mozart wrote his breakthrough Piano Concerto No. 9 in E- Flat-Major at the _____. of twenty-one. In some creative forms, like lyric poetry, the _____. of precocity has hardened into an iron law. How old was T. S. Eliot when he wrote "The Love Song of J. Alfred Prufrock" ("I grow old . . . I grow old")? Twenty-three. "Poets peak young," the _____. researcher James Kaufman maintains. Mihly Cskszentmihlyi, the author of "Flow," agrees: "The most creative lyric verse is believed to be that written by the young." According to the Harvard psychologist Howard Gardner, a leading authority on creativity, "Lyric poetry is a _____. where _____. is discovered early, burns brightly, and then peters out at an early age."

Option: creativity, talent, age, importance, domain, through

Answer: through, age, importance, creativity, domain, talent

37. Down the road, the study authors write, a better understanding of sharks' _____. may help scientists learn more about what drives their choice of things like prey and _____. . Some sharks are shy, and some are outgoing; some are _____., and some prefer to stick close to what they know, information that could prove useful in making sense of larger species-wide behavior _____. .

Option: adventurous, habitat, patterns, personalities

Answer: personalities, habitat, adventurous, patterns

38. In reality, however, the causes of truancy and non-attendance are diverse and multifaceted. There are as many _____. of non-attendance as there are non-attenders. Each child has her own _____. story, and whilst there may often be certain identifiable factors in common, each non-attending child demands and _____. an individual response, tailored to meet her



individual needs. This applies _____ to the 14-year-old who fails to attend school because a parent is terminally ill, the overweight 11-year-old who fails to attend because he is _____ about changing for PE in front of peers, the 15-year-old who is 'bored' by lessons, and to the seven-year-old who is teased in the playground because she does not wear the latest designer-label clothes

Option: deserves, embarrassed, unique, triggers, equally

Answer: triggers, unique, deserves, equally, embarrassed

39. Chemicals used to control weeds in crops such as corn and soybeans may sometimes run off farmland and enter surface water bodies such as lakes and streams. If a surface water body that is used as a _____ water supply receives excess amounts of these herbicides, then the municipal water treatment plant must _____ them out in order for the water to be safe to drink. This added filtration process can be expensive. Farmers can help control excess herbicides in runoff by choosing chemicals that bind with _____ more readily, are less toxic, or degrade more quickly. Additionally, selecting the best tillage practice can help minimize herbicide _____.

Option: pollution, filter, soil, drinking

Answer: drinking, filter, soil, pollution

40. Australia and New Zealand have many common links. Both countries were recently settled by Europeans, are predominantly English speaking and in that sense, share a common cultural _____. Although in close proximity to one another, both countries are geographically isolated and have small populations by world _____. They have similar histories and enjoy close relations on many fronts. In terms of population _____, Australia and New Zealand have much in common. Both countries have minority indigenous



populations, and during the latter half of the 20th century have seen a steady stream of migrants from a variety of regions throughout the world. Both countries have _____. similar declines in fertility since the high levels recorded during the baby boom, and alongside this have enjoyed the benefits of continually improving life expectancy. One consequence of these trends is that both countries are faced with an ageing population, and the _____. challenge of providing appropriate care and support for this growing group within the community

Option: experienced, characteristics, standards, associated, heritage

Answer: heritage, standards, characteristics, experienced, associated

41. Volcanoes blast more than 100 million tons of carbon dioxide into the atmosphere every year, but the gas is usually _____. . When a volcano erupts, carbon dioxide spreads out into the atmosphere and isn't _____ in one spot. But sometimes the gas gets trapped _____ under enormous pressure. If it escapes to the surface in a dense _____, it can push out oxygen-rich air and become deadly

Option: concentrated, harmless, cloud, underground

Answer: harmless, concentrated, underground, cloud

42. Although for centuries preparations derived from living _____ were applied to wounds to destroy _____, the fact that a microorganism is _____ of destroying one of another species was not _____ until the latter half of the 19th century. When Pasteur noted the antagonistic effect of other bacteria on the anthrax organism and pointed out that this action might be put to _____ use

Option: infection, established, therapeutic, capable, matter

Answer: matter, infection, capable, established, therapeutic



43. Symbiosis is a general term for interspecific interactions in which two species live together in a long-term, intimate association. In everyday life, we sometimes use the term symbiosis to mean a _____. that benefits _____. parties. However, in ecologist-speak, symbiosis is a broader concept and can include _____, lasting relationships with a _____ of positive or negative effects on the participants

Option: both, relationship, close, variety

Answer: relationship, both, close, variety

44. Steven Pinker, a cognitive psychologist best known for his book "The Language Instinct", has called music "auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties." If it _____ from our species, he said, "the rest of our lifestyle would be _____ unchanged." Others have argued that, on the _____, music, along with art and literature, is part of what makes people human; its absence would have a brutalizing effect. Philip Ball, a British science writer and an _____ music enthusiast, comes down somewhere in the middle. He says that music is _____ in our auditory, cognitive, and motor functions. We have a music _____ as much as a language instinct and could not rid ourselves of it if we tried.

Option: avid, instinct, vanished, contrary, virtually, ingrained

Answer: vanished, virtually, contrary, avid, ingrained, instinct

45. Lake Turkana is a large lake in Kenya, East Africa. This _____ of Africa was home to some of the first humans. Here, archaeologists have found piles of _____ (both human and animal) and collections of stones that humans used as _____. By carefully uncovering and _____ these remains, scientists have started to put together the story of our earliest ancestors. In



2001, a 4-million-year-old skeleton was uncovered in the area. Although a link between it and modern-day humans has not been established, the skeleton shows the species was walking upright.

Option: examining, bones, part, tools

Answer: part, bones, tools, examining

46. Stars and the material between them are almost always found in gigantic _____ systems called galaxies. Our own galaxy, the Milky Way System, happens to be one of the two _____ systems in the Local Group of two dozen or so galaxies. The other is the Andromeda galaxy; it _____ more than one hundred thousand light- years from one end to the other, and it is _____ about two million light-years _____ from us.

Option: largest, located, distance, stellar, stretches

Answer: stellar, largest, stretches, located, distance

47. Upholding the motto of Integrity, Vision and Academic Excellence, Shanghai International Studies University (SISU) is an internationally recognized, _____ academic institution distinctive for its multidisciplinary and multicultural nature, committed to preparing innovative professionals and future global leaders for a wide range of international expertise to address the critical challenges of our times. Drawing on our strengths in multi-language programs and multi-disciplinary resources, while responding to national and regional strategies, we operate more than 70 research institutes and centers serving as academic think tanks to provide advisory services on language policies, diplomatic strategies, and global public _____ of China. These academic entities have contributed landmark research and are also dedicated to promoting the development of social sciences in China.



We have now _____. partnerships with more than 330 universities and institutions from 56 countries and regions, and have _____. close connection with international organizations, including the United Nations and the European Union.

Option: established, maintained, opinion, prestigious

Answer: prestigious, opinion, established, maintained

48. In geologic terms, a plate is a large, rigid slab of solid rock. The word tectonics comes from the Greek _____. to build. putting these two words together, we get the term plate tectonics, which _____. to how the Earth's surface is built of plates. The theory of plate tectonics _____. that the Earth's outermost layer is _____. into a dozen or larger and small plates that are moving _____. to one another.

Option: fragmented, states, refers, root, relative

Answer: root, refers, states, fragmented, relative

49. We now know through the work of neuroscientists that the human brain is wired to mimic other people, and this mimicry involves actual involuntary physiological _____. in the observer. Human beings tend to _____. actions that they see. Physiologically, our brains include mirror neurons, which _____. to actions that are seen as if we are doing the action ourselves. It is largely an unconscious and automatic experience. When we hear people speak, observe their vocal _____., watch their posture, gestures, and facial expressions, etc., neural networks in our brains are stimulated by the shared representations generating feelings within us that _____. the experience of those we are observing.

Option: nuances, react, experience, reflect, imitate

Answer: experience, imitate, react, nuances, reflect



50. It would be reassuring to think that the electorate choose who to vote for based on the candidates' track records and future policy promises. _____, many of us are swayed simply by the way that politicians look. Consider a 2009 study that asked Swiss students to look at multiple pairs of unfamiliar French political candidates and in each case to select the one who looked most competent. Most of the time, the candidate selected by students _____ looking the most competent was also the one who'd had real life electoral success, the implication being that voters too had been swayed by the candidates' appearance (there's little evidence that appearance and competence actually _____). Unsurprisingly, being attractive also helps win votes, especially in war time (in peacetime, looking trustworthy is more of an advantage). Other research has shown that were more likely to vote for male and female candidates with deeper voices.

Option: correlate, In truth, as

Answer: In truth, as, correlate

51. Coffee is enjoyed by millions of people every day and the 'coffee experience' has become a staple of our modern life and _____. While the current body of research related to the effects of coffee _____ on human health has been contradictory, a study in the June issue of Comprehensive Reviews in Food Science and Food Safety, which is published by the Institute of Food Technologists (IFT), found that the potential _____ of moderate coffee drinking outweigh the risks in adult consumers for the majority of major health _____ considered.

Option: costs, cult, consumption, cares, outcomes, expenditure, benefits, culture



Answer: culture, consumption, benefits, outcomes

52. Because of the instructional methods, expected class participation and the nature of the courses vary, no fixed number of absences is applicable to all _____. Each _____ is responsible for making clear to the class at the beginning of the _____ his or her policies and procedures in regard to class _____ and the reasons for them.

Option: situations, monitor, scales, attendance, roster, instructor, semester

Answer: situations, instructor, semester, attendance

53. In the process of studying these techniques, I learned something _____: that there's far more potential in our _____ than we often give them credit for. I'm not just talking about the fact that it's possible to memorize lots of _____ using memory techniques. I'm talking about a lesson that is more _____, and in a way much bigger: that it's possible, with training and hard work, to teach oneself to do something that might seem really _____.

Option: redundant, remarkable, information, beliefs, general, inspiration, minds, difficult

Answer: remarkable, minds, information, general, difficult

54. The University of Maryland boasts 78 academic programs _____ in the top 25 nationally and 29 academic programs in the top 10 according to U.S. News and World report. By drawing top-notch faculty, attracting the brightest students and _____ in the quality of our academic programs, we are a force to _____ with on a national _____.

Option: extent, agree, reckon, investing, ranked, involving, basis, ranged

Answer: ranked, investing, reckon, basis

55. The _____ decades of an artist's life do not generally make the biographer's heart beat faster, but Claude Monet is one of a _____ of painters who bucks the pattern of an irrelevant old age. While it's true that by the time he



was 73 he had _____ all the usual dragging baggage – outhouses full of fancy cars, a taste for expensive wine and a sprawl of dependents – it was also now that he produced career-defining work.

Option: accumulated, accommodated, mouthful, handful, closing, missing

Answer: closing, handful, accumulated

56. Like the sea turtles, we are _____ to the bright lights of our phones, tablets, laptops, and TVs, our minds and bodies becoming _____ as we lose focus and direction. Each day, we are _____ between the value of tech and the cost to our health.

Option: disoriented, drawn, torn, dislocated, juggling, dawn, disinterested

Answer: drawn, disoriented, torn

57. The universality of story Feature films are narratives – they tell stories. Even films based on _____ events will fictionalize them in order to produce drama, to telescope time, to avoid being filled up with too many _____ characters, or simply to be more entertaining. Even in the current welter of special-effect movies, feature films are usually summarized by their plots – in their first treatment (or outline of the script idea), in the advance publicity, in the TV guide, in reviews, and in conversations. Films may differ from other _____ of narrative – literary fiction or television drama, for instance in the medium used and the representational conventions. They do, however, _____ with literary fiction and television drama the basic structure and functions of narrative. Much work has been done by researchers in the field known as 'narratology' on exactly what constitutes the structures and functions of the narrative. Their conclusions are of great use to students of the feature film.

Option: share, true, columns, kinds, shape, contrived, minor, leading

Answer: true, minor, kinds, share



58. The lightest of any solid element, lithium has, until now, played a _____ role in industry. Silvery in color, and softer than lead, it has been used mainly as an alloy of aluminum, a base for automobile grease, and in the _____ of glass and ceramics. It is so _____ that it is never found in its pure form in nature. Lithium floats on water -- or, _____, it skitters wildly about, trailing a vapor cloud of hydrogen, _____ it dissolves.

Option: rather, production, unstable, modest, unknown, even, intuition, until

Answer: modest, production, unstable, rather, until

59. Assessments of language learning in 18-month-olds suggest that children are better at grasping the names of objects with repeated syllables, over words with non-identical syllables. Researchers say the study may help _____ why some words or phrases, such as 'train' and 'good night', have given rise to versions with repeated syllables, such as choo-choo and night-night. The researchers say such words are easier for infants to learn, and may provide them _____ a starter point for vocabulary learning. A team from the University of Edinburgh assessed the infants' language learning behavior in a series of _____ and attention tests using pictures on a computer screen of two unfamiliar objects. The two objects were named with _____ words which were _____ to the infants by a recorded voice – one with two identical syllables, for example neenee, and the other without repeated syllables, such as bolay. The infants were then tested for their recognition of _____ word. Recordings of their eye movements showed they looked more reliably at the object labeled with repeated syllables, than the other object. Researchers validated their results with a control test, in which the infants responded to pictures of familiar objects – such as a dog or an apple.

Option: content, with, genuine, visual, explain, communicated, since, made-

up, each



Answer: explain, with, visual, made-up, communicated, each

60. Civics and citizenship education builds student's knowledge and understanding of the ways in which citizens can actively _____ in Australia's diverse and inclusive society. Students learn about the civic institutions and the _____ through which decisions are made for the common good of the _____ and they also develop the _____ and understandings that relate to the organization of a harmonious democratic society.

Option: processes, precision, skills, involve, humanity, participate, wills, community

Answer: participate, processes, community, skills

61. At the height of summer, the Antarctic, tourist ships move gently around the coast. Even 30 years ago such sights would have been unthinkable, but today people are willing to pay large sums of money to see the last real wilderness in the world. In the Arctic, careless human exploitation _____ has damaged the fragile ecosystem. Today concerned governments are trying to find ways to develop the region _____ caring for the very special natural environment. _____ the Antarctic is less accessible than the Arctic, it is still largely undamaged by humans, although holes in the ozone layer above the Antarctic _____ discovered. Many people believe that one way to preserve the area is to make the whole region into a world park, with every form of exploitation internationally _____.

Option: whereas, have already been, in the future, is to be, while, Except, Because, in the past, banned, infested

Answer: in the past, while, Because, have already been

62. Number and form are the essence of our world: from the patterns of the stars to the pulses of the market, from the _____ of our hearts to catching a ball or tying our shoelaces. Drawing on science, literature, history and philosophy,



and introducing _____ from Alcibiades to Gauss, this _____ book makes the mysteries of maths accessible and its rich _____ brilliantly clear.

Option: geniuses, beats, inspiring, textures, patterns, novelties, rare, tempo

Answer: beats, geniuses, inspiring, patterns

63. Joseph Engelberger, a pioneer in industrial robotics, once remarked "I can't _____ a robot, but I know one when I see one." If you consider all the different machines people _____ robots, you can see that it's nearly impossible to come up with a _____ definition. Everybody has a different idea of what constitutes a robot.

Option: call, create, complex, need, comprehensive, define, invent

Answer: define, call, comprehensive

64. Trees, as ever, are or should be at the heart of all _____ on climate change. The changes in carbon dioxide, in temperature, and in patterns of rainfall will each affect them in many ways, and each parameter _____ with all the others, so between them, these three mains _____ present a bewildering range of possibilities.

Option: interacts, variables, discussions, chat, variations, notes

Answer: discussions, interacts, variables

65. Recommended energy intakes are difficult to _____ even among individuals of the same age, sex, weight, height and general pattern of _____. Therefore, the energy requirement for healthy people is often _____ as the amount of energy needed to _____ the status quo.

Option: obtain, entities, calculate, excised, expressed, maintain, activity

Answer: calculate, activity, expressed, maintain

66. So why the concern? It's partly _____ radioactivity is invisible. If you receive a large dose, or if you _____ radioactive heavy metals, it is certainly toxic, and we tend to _____ it with cancer, a great fear in modern _____. Nuclear



waste is also highly concentrated. While this is seen as a "problem" it can be an advantage - it is very localized and its radioactive nature, means we can detect easily, the movement of tiny amounts of material.

Option: attract, volatile, ingest, world, that, associate, induce, because, society

Answer: because, ingest, associate, society

67. English has been changing throughout its lifetime and it's still changing today. For most of us, these changes are fine as long as they're well and truly in the past. Paradoxically, we can be _____ about word origins and the stories behind the _____ we find in our language, but we _____ a queasy distaste for any _____ that might be happening right under our noses. There is a certain _____ of consistency. There are even language critics who are _____ that English is dying, or if not dying at least being progressively _____ through long years of mistreatment.

Option: curious, crippled, convinced, experience, structure, expect, kind, lack, change

Answer: curious, structure, experience, change, lack, convinced, crippled

68. Wind is air moving around. Some winds can move _____ fast as a racing car, over 100 miles per _____. Winds can travel around the world. Wind can make you feel cold because you lose heat from your body _____ when it is windy. Weather forecasters need _____ know the speed and direction of the wind. The strength of wind is measured using the Beaufort scale from wind force 0 when there is no wind, to wind force 12 which can damage houses and buildings and is called hurricane force.

Option: hour, as, second, more, slower, with, to, faster

Answer: as, hour, faster, to



69. Clones of an Eastern cottonwood (*Populus deltoids*) in the Bronx and other city spots grew to double the biomass of clones _____ outside small towns upstate or on Long Island, says Jillian Gregg, now of the Environmental Protection Agency's western-ecology division in Corvallis, Ore. The growth gap comes from ozone damage, she and her New York colleagues report. _____ chemists have known that _____ may spike skyscraper high in city air, but during a full 24 hours, rural trees actually get a higher cumulative ozone exposure from _____ pollution that blows in and lingers. A series of new experiments now shows that this hang-around ozone is the _____ factor in tree growth, the researchers say in the July 10 *Nature*. "This study has profound importance in showing us most vividly that rural areas _____ the price for urban pollution," says Stephen P. Long of the University of Illinois at Urbana-Champaign. "This work should be a wake-up call," he adds.

Option: pay, solution, urban, oxygen, ozone, rural, gaps, spend, overwhelming, concentrations, planted, invades, necessary, protected

Answer: planted, ozone, concentrations, urban, overwhelming, pay

70. Pop mega-stars including Adele, Michael Jackson and Sir Elton John have all _____ music at the world-famous Metropolis Studios. Last year, the recording studios set about compiling an album called 'Lost Songs', which _____ songs from relatively unknown musicians. First-year student Zak Taylor Fray decided to submit his song demo to be _____ in Volume Two of the Lost Songs album which was released this year, after he _____ how successful Volume One had been. Zak 24, said: 'I _____ this competition when simply searching the internet for songwriting competitions one day, and was lucky that there was still time to enter. It amazes me that people who have worked with huge pop stars thought my song was good and worth something.'



Option: features, recorded, assuming, deletes, sew, included, found, inclined, saw, delivered

Answer: recorded, features, included, saw, found

71. Housing agencies pay the utility _____, generally because _____ in developments don't have individual meters. Some buildings have individual meters, and each family pays its own to the utility _____, so agencies will deduct the _____ from your _____.

Option: costs, units, company, allowance, spends, amount, debt, collect, rent

Answer: costs, units, company, amount, rent

72. Timing is important for revision. Have you noticed that during the school day you get times when you just don't care any longer? I don't mean the lessons you don't like, but the ones you find usually OK, but on some occasions, you just can't be bothered with it. You _____ have other things on your mind, be tired, restless, or looking forward to what comes next. Whatever the reason, that particular lesson doesn't get 100 percent _____ from you. The same is true of revision. Your mental and physical _____ are important. If you try to revise when you are tired or totally occupied with something else, your revision will be inefficient and just about worthless. If you approach it feeling fresh, alert and happy, it will be so much easier and you will learn more, faster. However, if you make no plans and just slip in a little bit of revision when you feel like it, you probably won't do much revision! You need a revision timetable so you don't keep _____.

Option: may, getting it wrong, attitudes, putting it off, down, can, effort, health

Answer: may, effort, attitudes, putting it off

73. At times, a broad stream of knowledge flowed from China to Japan. At other times, this transfer was _____ on one side or the other, and Japan _____



on its own. But whether in isolation or not, Japan was always itself. Everything that _____ from China was _____ to suit Japanese tastes and needs.

Option: adapted, remained, arrived, halted, hoisted, developed

Answer: halted, developed, arrived, adapted

74. It is difficult to tell precisely when the Breton language was born. As early as the VIth century the new country was _____ and known as 'Lesser Britain', but for many centuries its language _____ close to the one of Great Britain's- very close even to the dialect spoken in the South West. The VIIIth century is the milestone where Breton, Cornish and Welsh are _____ as different languages.

Option: registered, considered, supplanted, remained, established, retreated

Answer: established, remained, considered

75. Mathematics and statistics play a _____ in almost all daily activities. They are at the _____ of advances in science and technology, as well as providing _____ problem-solving and decision-making tools in many _____ of life. They underpin the rigorous analysis and modelling required for new policies, designs and systems. Mathematical and statistical knowledge is much sought after by employers for a wide _____ of jobs, not least in teaching the subject, and a qualification in any one of the areas we offer can bring real benefits in your professional life.

Option: process, heart, areas, novel, part, indispensable, content, radius, variety

Answer: part, heart, indispensable, areas, variety

76. Complementary therapies - such as those _____ by naturopaths, chiropractors, and acupuncturists - have become increasingly popular in Australia over the last few _____. Interest initially coincided with _____ for alternative lifestyles, while immigration and increased contact and trade with



China have also had an _____. The status of complementary therapies is being re-visited in a number of areas: legal regulation; the stances of doctors' associations; their inclusion in medical education; and scientific research into their _____.

Option: field, practiced, theorized, influence, enthusiasm, increase, times, decades, ambition, efficacy

Answer: practiced, decades, enthusiasm, influence, efficacy

77. Descendants of the Maya living in Mexico still sometimes refer to themselves as the corn people. The phrase is not intended as _____. Rather, it's meant to _____ their abiding dependence on this miraculous grass, the _____ of their diet for almost nine thousand years. Forty percent of the calories Mexican eats in a day comes directly from corn, most of it in the form of tortillas. So when a Mexican says I am maize or corn walking, it is simply a statement of fact: The very substance of the Mexicans body is to a considerable extent a _____ of this plant.

Option: stage, metaphor, acknowledge, staple, declaration, implicit, stable, manifestation

Answer: metaphor, acknowledge, staple, manifestation

78. Finding challenging or _____ employment may mean retraining and moving from a stale or boring job in order to find your _____ and pursue it. The idea is to think long range and anticipate an active lifestyle into later years -- perhaps into one' s 80s or 90s. Being personally productive may now mean anticipating retiring in stages. This might indicate going to an alternate _____ should a current career end by choice or economic chance.

Option: passion, plan, rewarding, expensive, direction, emotion

Answer: rewarding, passion, plan



79. You have about 30 minutes to answer each question. You must take account of how many marks are _____ for each part when you answer it. Even if you think you can write more, don't spend 15 minutes _____ apart worth only 5 marks. Leave space at the end of your answer and come back to it if you have _____ to spare later. And if you can't think of an answer to some part, leave a space and move on to the next part. Don't write about something else if you don't know the correct answer – this is just a waste of your _____ time (and the examiner's).

Option: time, accelerated, routine, valuable, answering, available

Answer: available, answering, time, valuable

80. Reading is an active process, not a _____ one. We always read within a _____ context, and this affects what we notice and what seems to matter. We always have a purpose in reading a text, and this will shape how we _____ it. Our purpose and background knowledge will also _____ the strategies we use to read the text.

Option: predominate, specific, approach, digital, determine, passive, volume

Answer: passive, specific, approach, determine

81. Differential rates of price change can also shape consumption patterns. To _____ their needs and wants, consumers sometimes choose to _____ spending on a particular product or service with spending on an alternative product or service in response to a _____ price movement of the items.

Option: convince, pending, satisfy, substitute, assure, relative

Answer: satisfy, substitute, relative

82. Although for centuries preparations derived from living _____ were applied to wounds to destroy _____, the fact that a microorganism is _____ of destroying one of another species was not _____ until the latter half of the 19th century. When Pasteur noted the antagonistic effect of other bacteria on



the anthrax organism and pointed out that this action might be put to _____ use.

Option: convinced, capable, infection, material, therapeutic, established, contamination, matter

Answer: matter, infection, capable, established, therapeutic

83. Technology and flexible work _____ have had a significant impact on today's busy companies. In terms of productivity, it seems the _____ has shifted from managing employees in the workplace to monitoring their total _____ no matter where they choose to work. Whether this trend will continue depends to some _____ on how well it works for everyone concerned.

Option: focus, deals, way, practices, selling, output, extent

Answer: practices, focus, output, extent

84. Gunpowder, also referred to as 'black powder', was the only _____ chemical explosive until the mid-nineteenth century. It _____ potassium nitrate, or 'saltpeter', which is an oxidizer, and a combination of charcoal and Sulphur serves as fuel. There is an _____ consensus that gunpowder was initially invented in China as early as the ninth century. This _____ to its use in fireworks and in gunpowder weapons.

Option: includes, contains, caused, academic, known, unique, led

Answer: known, contains, academic, led

85. Ideas as well as people can take _____ stage at the right time and the right place. If new ideas are to have a wide-ranging _____, they had better occur at the right time - usually when old theories are worn out or have reached a dead _____. Then they make people think along new lines and in ways that may _____ in unexpected directions. These ideas needn't be new in themselves. They can be older, half-forgotten ideas brought back to life, or new combinations of _____ ones presented in a new light.



Option: center, effect, end, familiar, front, unknown, lead, stop

Answer: center, effect, end, lead, familiar

86. An investigation into the study habits of undergraduates was carried out by a _____ of researchers at a number of different universities. In all the universities _____ in the study, it was found that there were the _____ significant differences between the habits of arts and science students. Not surprisingly perhaps, arts students read more _____, while science students tended to concentrate on a few core texts.

Option: core, heavily, involving, participating, same, staff, team, widely

Answer: team, participating, same, widely

87. An "Open Door" policy provides for maintenance in a certain territory of equal commercial and industrial rights for the nationals of all countries. As a _____ policy, it was first advanced by the United States, but it was _____ in the typical most-favored-nation clause of the treaties concluded with China after the Opium War (1839-42). Although the Open Door is generally _____ with China, it also received recognition at the Berlin Conference of 1885, which declared that no power could _____ preferential duties in the Congo basin.

Option: declaration, blatant, rooted, associated, disturb, specific, levy

Answer: specific, rooted, associated, levy

88. The Dow Jones Industrial Average (DJIA) reports the average stock price of large, publicly traded US companies. It tends to _____ the state of the stock market as a whole. Though its name would _____ you to believe the DJIA is made up of only _____ companies, the DJIA in fact contains stocks across many "industries," not all of which are industrial. The businesses _____ include finance, food, technology, retail, heavy equipment, oil, chemical, pharmaceutical, consumer goods, and entertainment.

Option: lead, industrial, distort, reflect, average, expressed, represented



Answer: reflect, lead, industrial, represented

89. Volcanoes blast more than 100 million tons of carbon dioxide into the atmosphere every year but the gas is usually _____. When a volcano erupts, carbon dioxide spreads out into the atmosphere and isn't _____ in one spot. But sometimes the gas gets trapped _____ under enormous pressure. If it escapes to the surface in a dense _____, it can push out oxygen-rich air and become deadly.

Option: cloud, focused, concentrated, dangerous, harmless, underground, aimed, air, harmful, atmosphere, underwater

Answer: harmless, concentrated, underground, cloud

90. Currently, there is concern about the increasing amount of time children spend in sedentary activities, the number of children who fail to achieve _____ daily physical activity guidelines (i.e., 60 min of moderate-to-vigorous intensity activities every day), and the apparent increase in obesity prevalence as a result of such sedentary _____. Screen-based activities, including television viewing and playing computer games are among the most frequently observed sedentary activities that children partake with children spending 2.5–4 h per day participating in such activities. The introduction of "active video games" (AVGs) into the gaming market presents an opportunity to convert traditional, sedentary screen-time into active screen-time and thus increase total daily energy expenditure (EE). Modern AVGs utilize cameras and motion sensors to allow the gamer to physically perform a variety of actions, _____ on the console, such as swinging a tennis racquet or running. The most demanding AVGs provided similar responses to walking and, based on international standards, should be classified as low-intensity activities. Whilst AVGs may provide children with a better alternative to sedentary gaming,



they are not a sufficient _____ for normal physical activity, e.g., sports and outdoor play.

Option: enough, decisions, repetition, focusing, behaviors, dependent, minimum, replacement

Answer: minimum, behaviors, dependent, replacement

91. The American executive, unlike the British, has no _____ with the legislature, and this lack of _____ between executive and legislature is one of the _____ features of American federal government. The Constitution guarded against executive control by disqualifying federal officials, whether civil or military, from membership in Congress.

Option: disqualifying, subordination, obvious, coordination, distinctive, dissatisfying, connection

Answer: connection, coordination, distinctive

92. Pre-Raphaelitism was Britain's most significant and influential 19th-century art movement. Founded in 1848, it _____ on a group of three young artists: William Holman Hunt, Dante Gabriel Rossetti and John Everett Millais. These artists sought to revive English art by radically turning away from the old studio _____ and bringing painting into direct _____ with nature. With an eye for absolute _____, every detail was now to have intense realist as well as _____ meaning.

Option: symbolic, delicacy, accuracy, counted, persuasive, centered, tradition, relation, contact, contract

Answer: centered, tradition, contact, accuracy, symbolic

93. An ice storm is a type of _____ when _____ rainfall comes down into the cold air and the water turned into _____. Once there were _____ than 16,000 households which had a blackout _____ an ice storm as the cables snapped with ice weighing on them.



Option: weather, cold, icy, more, during, rather, climate, before, ice

Answer: weather, cold, ice, more, during

94. University science is now in real crisis – particularly the non-telegenic, non-ology bits of it such as chemistry. Since 1996, 28 universities have stopped offering chemistry degrees, according to the Royal Society of Chemistry. The society _____ that as few as six departments (those at Durham, Cambridge, Imperial, UCL, Bristol and Oxford) could remain open by 2014. Most recently Exeter University closed down its chemistry department, blaming it on "market forces", and Bristol took in some of the refugees. The closures have been blamed on a _____ in student applications, but money is a _____: chemistry degrees are expensive to provide – compared with English, for example – and some scientists say that the way the government concentrates research _____ on a small number of top departments, such as Bristol, exacerbates the _____.

Option: motive, witnesses, fall, rise, problem, funding, factor, predicts

Answer: predicts, fall, factor, funding, problem

95. Surely, reality is what we think it is; reality is revealed to us by our experiences. To one extent or another, this view of reality is one many of us hold, if only _____. I certainly find myself _____ this way in day-to-day life; it's easy to be _____ by the face nature reveals directly to our senses. Yet, in the decades since first _____ Camus' text, I've learned that modern science _____ a very different story.

Option: seduced, explicitly, implicitly, thought, imposes, introducing, encountering, thinking, tells

Answer: implicitly, thinking, seduced, encountering, tells

96. The inevitable consequences _____ rampant corruption, an absence of globally competitive Latin American companies, _____ waste of resources,



rampant environmental _____ and soaring inequality. Above all, the monopoly over power of an ideologically bankrupt party is _____ with the pluralism of opinion, security of property and vibrant competition on which a dynamic economy depends. As a result, Latin American development remains parasitic on know-how and institutions developed elsewhere.

Option: include, chronic, inconsistent, degradation, conclude, consistent, slowly, improvement, inconsiderate

Answer: include, chronic, degradation, inconsistent

97. The conducted study serves three objectives. The first objective is to reveal the _____ loaded to the child by the child-centric mother's attitude and the effect of 5-6-year-old nursery school children on the purchasing decision of families who belong to a high socio-economic class. The second objective is to _____ a child centrality scale and the third object is to examine the attitude and behavior _____ between low child-centric and high child-centric mothers. _____ the data gathered from 257 mother respondents, the researchers have found that the lowest influence of the child upon the purchasing decisions of the family are those which carry high purchasing risk and are used by the whole family, whereas the highest influence of the child upon the purchasing decision of the family are the products with low risk used by the whole family. Findings also reveal that there are statistically significant differences between the high child-centric and low child-centric mothers regarding purchasing products that are highly risky and used by the whole family.

Option: prices, eliminate, remove, develop, similarities, omitting, misunderstanding, values, differences, skimming, Analyzing

Answer: values, develop, differences, Analyzing



98. From a child's point of view, what is the purpose of TV advertising? Is advertising on TV done to give actors the opportunity to take a rest or _____ their _____ ? Or is it done to make people buy things? Furthermore, is the main _____ between programs and commercials that commercials are for real, whereas programs are not, or that programs are for kids and commercials for adults? As has been shown several times in the literature (e.g., Butter et al. 1981 Donohue, Henke, and Donohue 1980 Macklin 1983 and 1987 Robertson and Rossiter 1974 Stephens and Stutts 1982), some children are able to _____ between programs and commercials and are _____ of the intent of TV advertising, whereas others are not.

Option: known, distinguish, difference, exercise, disparity, lines, conflict, practice, tell, aware

Answer: practice, lines, difference, distinguish, aware

99. Genius, in the popular conception, is inextricably tied up with precocity - doing something truly creative, we're inclined to think, requires the freshness and exuberance and energy of youth. Orson Welles made his masterpiece, "Citizen Kane," at twenty-five. Herman Melville wrote a book a year _____ his late twenties, culminating, at age thirty-two, with "Moby-Dick." Mozart wrote his breakthrough Piano Concerto No. 9 in E-Flat-Major at the _____ of twenty-one. In some creative forms, like lyric poetry, the _____ of precocity has hardened into an iron law. How old was T. S. Eliot when he wrote "The Love Song of J. Alfred Prufrock" ("I grow old ... I grow old")? Twenty-three. "Poets peak young," the creativity researcher James Kaufman maintains. Mihály Csíkszentmihályi, the author of "Flow," agrees: "The most creative lyric verse is believed to be that written by the young." According to the Harvard psychologist Howard Gardner, a leading _____ on creativity, "Lyric poetry is a



domain where talent is discovered early, burns brightly, and then peters out at an early age."

Option: talent, industry, key, intellectual, domain, originality, creativity, icon, across, time, age, through, importance, authority

Answer: through, age, importance, creativity, authority, talent, domain

100. Omniscience may be a foible of men, but it is not so of books. Knowledge, as Johnson said, is of two _____, you may know a thing yourself, and you may know where to find it. Now the amount which you may actually know yourself must, at its best, be limited, but what you may know of the _____ of information may, with proper training, become almost boundless. And here come the _____ and use of reference books—the working of one book in connection with another—and applying your own _____ to both. By this means we get as near to that omniscient volume which tells everything as ever, we shall get, and although the single volume or work which tells everything does not exist, there is a vast number of reference books in existence, a knowledge and proper use of which is essential to every intelligent person. Necessary as I believe reference books to be, they can easily be made to be _____ to idleness, and too mechanical a use should not be made of them.

Option: sides, output, property, expense, kinds, sources, value, intelligence, contributory, devoted

Answer: kinds, sources, value, intelligence, contributory

101. Down the road, the study authors write, a better understanding of sharks' _____ may help scientists learn more about what drives their choice of things like prey and _____. Some sharks are shy, and some are outgoing; some are _____, and some prefer to stick close to what they know, information that could prove useful in making sense of larger species-wide behaviors _____.



Option: personalities, offspring, dangerous, habitat, patterns, extrovert, adventurous

Answer: personalities, habitat, adventurous, patterns

102. Discrimination against women has been alleged in hiring practices for many occupations, but it is extremely difficult to demonstrate sex-biased hiring. A change _____ the way symphony orchestras _____ musicians provides an unusual way to test for sex-biased hiring. To overcome possible biases in hiring, most orchestras _____ their audition policies in the 1970s and 1980s. A major change involved the use of blind' auditions with a screen' to _____ the identity of the candidate from the jury. Female musicians in the top five symphony orchestras in the United States were less than 5% of all players in 1970 but are 25% today. We ask whether women were more likely to be advanced and/or hired with the use of blind' auditions. Using data from actual auditions in an individual fixed-effects framework, we find that the screen _____ by 50% the probability a woman will be _____ out of certain preliminary rounds. The screen also enhances, by several fold, the likelihood a female contestant will be the winner in the final round. Using data on orchestra personnel, the switch to blind' auditions can explain between 30% and 55% of the increase in the proportion female among new hires and between 25% and 46% of the increase in the percentage female in the orchestras since 1970.

Option: on, increases, employ, revised, conceal, decreases, recruit, exchanged, in, reveal, peaks, steal, stood, advanced

Answer: in, recruit, revised, conceal, increases, advanced

103. For a start, we need to change our _____ of 'retirement', and we need to change mindsets arising from earlier government policy which, in the face of high unemployment levels, encouraged mature workers to take early



retirement. Today, government encourages them to _____ their retirement. We now need to think of retirement as a phased process, where mature age workers _____ reduce their hours, and where they have considerable flexibility in how they combine their work and non-work time. We also need to recognize the broader change that is occurring in how people work, learn, and live. Increasingly we are moving away from a linear relationship between education, training, work, and retirement, as people move in and out of jobs, careers, caregiving, study, and leisure. Employers of choice remove the _____ between the different segments of people's lives, by creating flexible conditions of work and a range of leave entitlements. They take an individualized approach to workforce planning and development so that the needs of employers and employees can be met _____. This approach supports the different transitions that occur across the life course - for example, school to work, becoming a parent, becoming responsible for the care of older relatives, and moving from work to retirement.

Option: mind, gradually, wait, barriers, concept, simultaneously, extend, suddenly, similarities, delay

Answer: concept, delay, gradually, barriers, simultaneously

104. After an absence of more than 50 years, the gray wolf (*Canis lupus*) once again runs beneath the night skies of Yellowstone National Park. At 3:45 pm on March 21st 1995, the first of three groups of gray wolves (also known as the timber wolf) were released from _____ acclimation pens at Crystal Creek within Yellowstone National Park. The wolf release plan, _____ in an environmental impact statement (EIS) in 1992-1994, is to restore wolves to Yellowstone and central Idaho by establishing experimental populations of gray wolves in both areas. The goal for Yellowstone is to establish 10 packs wolves reproducing in the area for three _____ years by the year 2002.



Restoring wolves to Yellowstone is in keeping with national park goals to perpetuate all native species and their natural interactions with their environment. As with other park wildlife programs, management emphasizes _____ human impact on natural animal population dynamics. Yellowstone National Park is a wilderness and wildlife refuge in the United States.

Option: Additional, minimizing, regular, consecutive, involved, fenced

Answer: fenced, involved, consecutive, minimizing

105. You can study anywhere. Obviously, some places are _____ than others. Libraries, study lounges or private rooms are best. Above all, the places you choose to study should not be _____. Distractions can _____, and the first thing you know, you're out of time and out of luck. Make choosing a good physical environment a _____ of your study _____. Option: better, habits, member, show, part, traditions, build up, distracting, establish, attracting

Answer: better, distracting, build up, part, habits

106. Dolphins are _____ mammals found all over the world. There are many different species. They are well-known as intelligent _____) and seem to communicate with one another in _____ ways. Dolphins are sociable animals in that they live in groups. These can range in size from five to several hundred. They often _____ in groups and work together to capture the fish or squid they like to eat.

Option: strange, hunt, creatures, different, marine, learn, sophisticated

Answer: marine, creatures, sophisticated, hunt

107. It's about animals that produce some chemical reactions to protect themselves. The first empty saying itself will produce an _____ smell and foul taste to resist the natural enemies... in the _____ for survival _____ is the animal's own color and other characteristics... _____. trial and error is that some animals have their own defense system without repeated



experimentation... There is another version of this question, one more empty: the most _____ skill says that this is an instinctive reaction that does not require training.

Option: appalling, automatic, feature, characters, attempt, struggle, important, dangerous, trial, agreeable

Answer: appalling, struggle, feature, dangerous, important

108. Many famous geographers and non-geographers have attempted to define the discipline in a few short words. The concept has also changed throughout the ages, making it difficult to create a _____, universal geography definition for such a dynamic and all-encompassing subject. After all, Earth is a big place with many facets to study. It affects and is affected by the people who live there and use its _____. But basically, geography is the study of the _____ of Earth and the people who live there, and all that encompasses.

Option: concise, facets, complex, resources, surface, options, methods

Answer: concise, resources, surface

109. Based on collaborative research by Arizona's top business school's this study of leadership and company performance uncovers the effects of leadership driven by _____, cost control, and maintaining market share, versus leadership driven more by balancing employee relations and development, customer or _____, and the welfare of the greater community. Together, Mary sully de Luque, assistant professor of Management and Research Fellow at Thunderbird School of Global Management and David Waldman, director of the Center for Responsible Leadership at ASU's school of Global management and Leadership, have found that maintaining a specific focus on earnings in _____ can have _____ on how a leader is viewed.

Option: profits, negative, effects, client, needs, decision, making



Answer: profits, client needs, decision making, negative effects

110. Secondary school can be a lonely place for _____ who don't have a best friend or a group of _____ friends. Young people will be more skilled in the art of making genuine friends (and keeping them) if they know how to be _____, are optimistic about life, have some basic social skills and have a relationship with a parent/care that includes _____ talk.

Option: assertive, grown-ups, assumptive, adolescents, apathetic, trusted, honest, royal basic

Answer: adolescents, trusted, assertive, honest

111. Pop mega-stars including Adele, Michael Jackson and Sir Elton John have all recorded music at the world-famous Metropolis Studios. Last year, the recording studios _____ compiling an album called 'Lost Songs', which features songs from relatively unknown musicians. First-year student Zak Taylor Fray decided to submit his song demo to be included in Volume Two of the Lost Songs album which was released this year, _____ he saw how successful Volume One had been. Zak 24, said: 'I found this competition when simply _____ the internet for songwriting competitions one day, and was lucky that there was still time to _____. It amazes me that people who have worked with

Option: set about, recorded, after, features, searching, included, saw, enter

Answer: set about, after, searching, enter

112. What is music? In one sense, this is an easy _____. Even the least musical among us can recognize pieces of music when we hear them and name a few canonical _____. We know there are different kinds of music and, even if our _____ of music is restricted, we know which kinds we like and which kinds we do not.

Option: volume, question, examples, knowledge, issue, classes



Answer: question, examples, knowledge

113. At the end of the last ice age, the melting ice disrupted the ocean currents in the North Atlantic and _____ a drop in temperature of almost 5 degrees. Even though the rest of the planet was warming _____, the North Atlantic region remained in a cold period for 1300 years. The same thing happened _____ 8000 years ago, when the cooling lasted about a hundred years, and it _____ happen again today. Even a short period of cooling in the North Atlantic could have a dramatic effect on the wildlife, and the human populations, living there.

Option: forwent, up, never, caused, could, around

Answer: caused, up, around, could

114. In search of lessons to _____ in our own careers, we often try to _____ what effective leaders do. Roger Martin says this focus is misplaced, because moves that work in one context may make little sense in another. A more productive, though more difficult, approach is to look at how such leaders _____. After extensive interviews with more than 50 of them, the author discovered that most are _____ thinkers -that is, they can hold in their heads two opposing ideas at once and then come up with a new idea that contains elements of _____ but is superior to both.

Option: integrative, disdain, emulate, either, each, appoint, show, apply, think, communal

Answer: apply, emulate, think, integrative, each

115. Sydney is becoming effective in making the best of its limited available unconstrained land. Sydney is suitable for integrating suitable business, office, residential, retail and other development in accessible locations so as to maximize public transport _____ and encourage walking and cycling. Also, this city can reduce the _____ of land for housing and associated



urban development on the urban fringe. For the proposed mixed business, mixed use and business park areas, there was no employment data available for _____ areas. It is also concluded that lack of housing supply will affect _____ in Sydney.

Option: consumption, patronage, comparable, alternative, expectation, affordability, contemporary

Answer: patronage, consumption, comparable, affordability

116. It's interesting that in our minds, we keep thinking of the _____ discovery like it's the Holy Grail. But there are a couple of shortcuts here that I'd like to unpack. I'm not a doctor, I'm just a _____. My clients focus on health care – biopharma companies, providers, global health _____ – and they've educated me. We need to find the tools to fight COVID, and we need to make them accessible to all.

Option: resident, valuable, stipulations, vacuum, _____, institutions, vaccine, consultant

Answer: vaccine, consultant, institutions, accessible

117. Active learning classrooms (ALCs) are student-centered, technology-rich classrooms. They are easily identified with their large _____ tables and movable seating designed to improve student _____ in class. Typically, each table is accompanied by a whiteboard and flat-screen monitor to display student work and larger rooms frequently have miniature bulb and microphones at each table. In this way, students are able to _____ if they have questions or want to speak to the _____ room.

Option: sign, circular, entire, engagement, partly, signal, arrangement, square

Answer: circular, engagement, signal, entire

118. Event management is particularly challenging from an operational viewpoint. In many cases, events are staged on sites where everything has been set up



over a 24-hour period, with all elements carefully _____. In contrast, many events are years in the planning: large convention bids are often won five years before the event is held. For the very _____ bidding process, budgets need to be developed and prices quoted, requiring a good understanding of market, economic and political trends, as well as consumer choices. This long-term view is the basis of strategic management, which is covered in Part 1, and focuses on the event concept, feasibility of the event, legal compliance and financial management. Marketing is a critical _____ factor and other important topic of this first section, many events (sporting, cultural and arts) involving long-term sponsorship _____ with key industry players. Relationship building is particularly _____ since there are so many stakeholders involved in events, including government agencies at many levels. Part 1 will look at all these aspects, including strategic risk, before moving on to the second part where operational planning and implementation will be covered in detail.

Option: success, challenging, repetitive, feasible, assimilated, alignments, overall, competitive, synchronized, arrangements

Answer: synchronized, competitive, success, arrangements, challenging

119. With the increase in women's _____ in the labor force, many mothers have less time _____ to undertake domestic activities. At the same time, there has been increasing _____ that the father's _____ with a child is important. A father can have many roles in the family, ranging from income provider to teacher, career, and playmate. Therefore, balancing paid work and family responsibilities can be an important issue for both fathers and mothers in families.

Option: relationship, efficient, roles, separation, shares, participation, recognition, available



Answer: participation, available recognition, relationship, roles

120. Chemistry is an extremely important topic in physiology. Most physiological processes occur as the _____ of chemical changes that occur within the body. These changes include the influx/efflux of ions across a neuron's membrane, causing a _____ to pass from one end to the other. Other examples include the _____ of oxygen in the blood by a protein as it passes through the lungs for _____ throughout the body.

Option: result, prerequisite, situation, signal, usage, storage

Answer: result, signal, storage, usage

121. In an attempt to _____ new students, leading business schools - including Harvard, Stanford, the University of Chicago and Wharton - have moved away from the unofficial admissions _____ of four years' work experience and _____ have set their sights on recent college graduates and so-called early career _____ with only a couple years of work under their belt.

Option: professionals, conclusion, instead, lure, juveniles, thus, prerequisite, check

Answer: lure, prerequisite, instead, professionals

122. Serving on a jury is normally compulsory for individuals who are _____ for jury service. A jury is _____ to be an impartial panel capable of reaching a verdict. There are often _____ and requirements, including a fluent understanding of the language and the opportunity to test juror's neutrality or otherwise exclude jurors who are perceived as likely to be less than _____ or partial to one side.

Option: qualified, detained, negative, entrances, neutral, intended, procedures

Answer: qualified, intended, procedures, neutral



123. An American retail giant is set to ask its suppliers to measure and report their greenhouse gas emissions. There is a need to _____ business emission. The _____ of emission can be used to test which company causes climate change, and _____ the government campaigners and environmental _____.

Option: conflate, invigilators, dislike, disclose, dismiss, landlord, data, quota

Answer: disclose, data, conflates, invigilators

124. In the preceding hundred years, Paris had been _____ stage for political and social _____ that had deeply affected all of Europe. The many ways in which tradition had already been challenged and _____ during those years helped make it easier for those to achieve a break with tradition art.

Option: movements, rehearsals, concocted, shaken, overhead, center

Answer: center, movements, shaken

125. Many famous geographers and non-geographers have attempted to define the discipline in a few short words. The concept has also changed throughout the ages, making it difficult to create a _____, universal geography definition for such a dynamic and all-encompassing subject. After all, Earth is a big place with many _____ to study. It affects and is affected by the people who live there and use its _____. But basically, geography is the study of the _____ of Earth and the people who live there, and all that encompasses.

Option: concise, facets, complex, resources, surface, options, methods

Answer: concise, facets, resources, surface

126. _____ or fierce, wind always starts in the same way. Wind is formed by the circulation of air. The sun heats up some part's other sea and the land. The air among the _____ spots warm up and rises. The cold air drops



because it is _____ some wind circulated within a small area. Others blow in the entire globe.

Option: heavy, soft, hot, Warm, light, entire, all, weighted, cold, cool gentle

Answer: Gentle, hot, heavy

127. Language comes so naturally to us that it is easy to forget what a strange and miraculous gift it is. All over the world members of our _____ fashion their breath into hisses and hums and squeaks and pops and listen to others do the _____. We do this, of course, not only because we like the sounds but because details of the sounds contain information about the _____ of the person making them. We humans are fitted with a mean of _____ our ideas, in all their unfathomable vastness. When we listen to speech, we can be led to think thoughts that _____ never been thought before and that never would have _____ to us on our own.

Option: species, opposite, same, partly, character, intentions, manipulating, sharing, have, occurred

Answer: species, same, intentions, sharing, have, occurred

128. The supply of a thing, in the phrase "supply and demand." Is the amount that will be _____ for sale at each of a _____ of prices; the demand is the amount that will be bought at each of a series of prices. The principle that values depends on supply and demand means that in the case of nearly every commodity, more will be bought If the price is lowered, less will be bought if the price is raised. Therefore, sellers, if they wish to induce buyers to take more of a commodity than they are already doing, must reduce its price; if they raise its price, they will sell less. If there is a general falling off if in demand – due, say, to trade depression – sellers will _____ have to reduce prices or put less on the market; they will not be able to sell the same amount at the same price. Similarly, with supply. At a certain price a certain amount will be offered



for sale, at a higher price more will be offered, at a lower price less. If consumers want more, they must offer a higher price; if they want less, they will probably be able to force prices down. That is the first _____ of a change in demand or supply.

Option: offered, series, imbalanced, raised, retaliate, either, result

Answer: offered, series, either, result

129. The American cabinet, unlike the British, has no connection with the legislature, and this lack of _____ between executive and legislature is one of the _____ features of American federal government. It came as a reaction against George III's very intimate relations with the House of Commons. The constitution guarded _____ executive control through "place-men by _____ federal officials.

Option: reliance, coordination, distinctive, frontiers, against, stimulating, disqualifying

Answer: coordination, distinctive, against, disqualifying

130. Britain became the largest _____ in the canal in 1875 purchasing its interest from the Egyptian khedive, The Convention of Constantinople signed by the major European powers in 1888 keeps it open for free _____ to all nations in time of peace or war. Britain became the _____ of the canal's neutrality and management was left to the Paris-based Suez Canal Co.

Option: Guarantor, kingdom, tariff, shareholder, passage, solicitor

Answer: Guarantor, shareholder, passage

131. In the process of studying these techniques, I learned something _____: that there's far more potential in our _____ than we often give them credit for. I'm not just talking about the fact that it's possible to memorize lots of _____ using memory techniques. I'm talking about a lesson that is more _____, and



in a way much bigger: that it's possible, with training and hard work, to teach oneself to do something that might seem really _____.

Option: bizarre, information, remarkable, characteristics, demanding, minds, general, arduously, difficult

Answer: remarkable, minds, information, general, difficult

132. From the earliest civilizations, plants and animals have been portrayed as a means of understanding and recording their potential uses, such as their economic and healing properties, From the first _____ of medicinal plants, De Material Medica by Dioscorides, in the first century, through to the late fourteenth century, the illustration of plants and animals changed very little. Woodcuts in instructional manuals and herbals were often repeatedly copied over the centuries, resulting in a loss of definition and accuracy so that they became little more than stylized decoration. With the growing _____ of copperplate engravings, the traditional use of woodcuts declined and the representation of plants and animals become more _____. Then, with the emergence of _____ such as Albrecht Durer and Leonardo Da Vinci, naturalists such as Otto Brunel's, Leonhard Fuchs in botany and Conrad Gesner and Ulises Aldrovanda in zoology, nature began to be _____ in a more realistic style, Individual living plants or animals were observed directly and their likeness _____ onto paper or vellum.

Option: forms, excavated material, illustrated catalogue, popularity, sustainable, accurate, artists, depicted, rendered

Answer: illustrated catalogue, popularity, accurate, artists, depicted, rendered

133. Education is generally considered to be a key _____ in improving outcomes for Indigenous Australians, with many studies showings that improved _____ and socioeconomic status are directly _____ to educational participation



and achievement. There is a range of issues _____ participation in education for Indigenous Australians, including _____ to educational institutions, financial constraints, and community expectations.

Option: factor, morality, health, trajectory, associated, linked, affecting, access

Answer: factor, linked, health, affecting, access

134. Chemistry is an extremely important topic in physiology. Most physiological processes occur as the _____ of chemical changes that occur within the body. These changes include the influx/efflux of ions across a neuron's membrane, causing a _____ to pass from one end to the other. Other examples include the _____ of oxygen in the blood by a protein as it _____ through the lungs for usage throughout the body.

Option: goes, result, neuron, signal, storage, rectifies, passes

Answer: result, signal, storage, passes

135. Work-ready international students are providing greater options for local employers who are having difficulties finding local staff due to _____ employment rate and _____ labor shortages, international students in accounting and information technology take part in a year-long program consisting of classroom work and practical experience, which provides them with _____ skills, industry contacts and a working _____ of Australian workplaces.

Option: lower, local, high, abandoned, transitory, ongoing, valuable, knowledge

Answer: high, ongoing, valuable, knowledge

136. Surely, reality is what we think it is; reality is revealed to us by our experiences. To one extent or another, this view of reality is one many of us hold, if only _____. I certainly find myself _____ this way in day-to-day life; it's easy to be



_____ by the face nature reveals directly to our senses. Yet, in the decades since first _____ Camus' text, I've learned that modern science _____ a very different story.

Option: surprisingly, impressively, implicitly, roughly, thought, have thought, thinking, thinks, seduced, supplanted, secured, supplied, encountering, copying, duplicating, enclosing, cheats, scales, tells, enlarges

Answer: implicitly, thinking, seduced, encountering, tells

137. The narrative of law and order is located fundamentally at the level of individual _____ and responsibility. Criminal acts are seen as individual issues of personal responsibility and culpability, to which the state responds by way of policing, prosecution, _____ and punishment.

This is but one level at which crime and criminal _____ can be analyzed. The problem is that so often analysis ends there, at the level of individual action, characterized in terms of responsibility, guilt, evil.

In few other areas of social life does individualism have this hold? To take but one instance, it would be absurd to restrict analysis of obesity, to individual greed. It should similarly be widely seen as _____ to restrict analysis of criminal justice issues to the culpability of individuals.

Option: adjudication, justice, considerate, award, image, guilt, absurd, feedback

Answer: guilt, adjudication, justice, absurd

138. From the mid-1890s a race was on between the merchant navies of the recently unified Germany, Britain and France. That race was to make the most luxurious and fastest ocean liners and it started with the Kaiser Wilhelm der Grosse, the first of fourteen four-stackers built between 1897 and 1921. The large vessels that followed each tried to outdo the previous one in terms of size and interior design. Using many of the most famous of interior _____,



every part of the new ships was 'designed', from the cutlery to the China, from the furniture to the paneling, and from the bedrooms to the boat decks. Through Kronprinzessin Cecilie, Mauretania, Aquitania, Olympic, Titanic, Imperator, Waterland, Ile de France, and Paris, the development and design of the ships grew grander and more luxurious. The process continued into the 1930s, with the Empress of Britain and the fabulously Art Deco Normandie, the finest and most expensive liner ever built, and designed to be a showcase for all that was France, as well as with the Queen Mary, a rather more traditional vessel, but one, _____, which pushed the boundaries of design away from the traditional country house look of the Edwardian era. Each new vessel brought with it the finest of interiors, from the plush and palatial to the modern look of the time. Even today, the influence of these floating _____ can still be seen in vessels such as Cunard's Queen Mary 2 and the multitude of new cruise vessels, all vying for the public's interest and affection. The large liners were truly floating palaces, and here, William H. Miller brings together a collection of fabulous images of the finest ships ever built, showcasing the style and elegance of a time when 'getting there was half the fun'.

Option: palaces, nonetheless, processors, rhythms, through, designers

Answer: designers, nonetheless, palaces

139. Barred owls can be found in _____ forests right across North America. They feed on small mammals, fish, birds and small reptiles _ pretty much anything that comes their way. The barred owl grows up to half a meter tall and has _____ as a very adaptable nocturnal predator. And, _____ they have been long-thought to live in old-growth forests, they are now building up quite an _____ population. In Charlotte, North Carolina, barred owls tend to nest in the cavities of the numerous willow oak trees that line the city's streets. Far from being endangered, the owls have expanded their range; and now, in some



places, conservationists are worried about the effects they might have on other _____ species.

Option: soared, concrete, distinguished, urban, whether, dense, whereas, emerged, native, overwhelming

Answer: dense, emerged, whereas, urban, native

140. As research has shown, emotions are contagious. And empaths are especially _____ to others' emotional energies. Because they're so attuned to others, they can get easily exhausted in crowds, be drawn into co-dependent _____, exhaust themselves trying to solve others' problems, or burn out from too much caregiving. Yet empathy is also a gift that brings greater _____ and understanding. Some of the finest therapists, doctors, nurses, professors, writers, designers, musicians, artists, and leaders in many have been empaths.

Option: confusion, relationships, issues, sensitive, resistant, insight

Answer: sensitive, relationships, insight

Gurully



LISTENING





SUMMARIZE SPOKEN TEXT

1. With the concept of moral objectivism, what we're looking at is the idea that there can be some universal moral principles: some rules, some ideas and guidelines that are valid for all people in all social environments and all situations. The idea that we can essentially have some signposts or a road map to guide behavior is going to be consistent across all individuals. Now if we take a look at this in another perspective, we can come up with a view of moral absolutism. In the area of moral absolutism, basically, what we have is illustrated on the right-hand side of this slide, is a very firm and unyielding boundary between what is right and what is wrong. And so, within moral absolutism, basically what you have are these non-overridable principles. They must be followed. They must never be violated and there were no exceptions. It is always right. It is always wrong. And nothing is subject to interpretation, and nothing is dependent upon the situation.
2. An essay is a chance to identify your read and learned. As a writer, you first need to collect many materials, then write an essay in four or five paragraphs, structures and quotes. If someone is searching for a book or article to read, he or she will decide from the very beginning whether this work is worth attention. If you want to wow your teacher, polish the introduction, especially the first couple of sentences. Add an essay hook—something interesting, funny, shocking, or intriguing to win the reader's attention. Build an emotional connection with your reader right from the start. A hook in the essay is a catchy sentence or paragraph in the impressive introduction which serves as an attention element and an important part. An excellent hook sentence is engaging and interesting; it is a perfect method to start an argumentative or



persuasive essay. The hook for your essay often appears in the first sentence. The opening paragraph includes a thesis sentence. Some popular hook choices can include using an interesting quote, a little-known fact, famous last words, or a statistic.

3. Through the 1950s and into the 1960s, the idea of the Industrial Revolution was that it was the work of some genius inventors who created machines used primarily in the textile industry but also in mining that eliminated blocks to assembly line production. Then everybody was crowded into factories and the new brave world opened up. In fact, one of the most interesting books and great classics that is still in print was written by an economic historian at Harvard who's still alive called David Landes. It's a good book called *The Unbound Prometheus*, which was basically that. Some of the inventions that I briefly describe in your reading, the spinning Jenny, etc., refer to that. Well, and that kind of analysis led one to concentrate on England where the Industrial Revolution began, and to view industrialization as beginning a situation of winners and losers by not going as fast. Now, that analysis has been really rejected greatly over the past years, because Industrial Revolution is measured by more than simply large factories with industrial workers and the number of machines. This is the point of the beginning of this. The more that we look at the Industrial Revolution, the more that we see that the Industrial Revolution was first and foremost an intensification of forms of production, of kinds of production that were already there. And thus, we spend more time looking at, you know, the intensification of artisanal production, craft production, of domestic industry, which we've already mentioned, that is people mostly women but also men and children, too, working in the countryside. The rapid rise of industrial production was very much tied to traditional forms of production.



4. The history of software is of course very new. And the whole IT industry is really only 67 years old which is extraordinary and to be so close to the birth of a major new technology, a major new discipline is quite remarkable given where we got to in those 67 years. And the progression has been not so much a progression as a stampede because Moore's Law, the rapid expansion in the power of computing and the rapid fall of the cost of computing and storage and communications has made it feasible for information technology to move into all sorts of areas of life that were never originally envisaged. What has happened is that there has been as I said a stampede for people to pick the low-hanging fruit. And that is what's guided the development of software and information technology over the past decades and continues to do so with a number of consequences that we will explore.
5. Why should we read the Republic? I imagine lots of students asked this question to me when they're given it as a set book at the beginning of their university course, but in fact there are many good reasons to read the Republic. And first one I would pick on is just that it is immensely readable. It's not Plato did not write philosophy like a dry text book. He wrote it like a living conversation. The whole of the Republic which is fairly fat book is a living conversation written in short almost soundbite type answers, but nevertheless, developing some very important ideas so my first answer then we should read the Republic just because it is readable. It is readable it was written by a genius and it's worth reading. It's easy to read. It's not difficult. But then there's also obviously the thoughts, the content of the book and he's asking this absolutely fundamental question why should we bother to be good, what's in it for us effectively. It seems when we look at the world, it looks as though injustice pays. It looks as though crime pays or as the good people get



trodden down. So, Plato addresses this absolutely fundamental question why should we be good. I'm not going to tell you, his answer. Read the book.

6. What's the literal definition of "risk"? Business schools use risk analysis. So, what do you mean by "risk", and we need a dictionary. When you look at dictionary, this is literal, literal definition of risk. What it says is, the definition for example, the possibility of injury, a dangerous element or factor, chance of, degree or possibility of such loss, and so on. So, risk has two parts, as you look at the literal definition of risk. One part is the consequence of some kind of particular danger, hazard loss. And the other is about the probability, of it: chance and consequence, OK? And then at least just as English language concerns, when you look up the word of safe and safety, which you'll learn as, it's a little bit of a loop, a little circular argument that free from harm or risks, secure from danger, harm or loss, the condition of being safe and so on for all. And why we take out of it? At least when we talk about safe at least in English language, we are talking absolute something is safe, or it sounds safe.
7. I suppose it's the truism to point out that citizens need to be well informed. Maybe it's something we take for granted in our liberal western democracies. But there will be plenty of societies, well, that is run counter to explicit government policy. Many areas of the world still suffer from the reverie of the deliberate missing information. Governments, especially the unelected ones, but also some elected ones, have denied the events that have ever taken place. They pretend that other events did take place. They would help spin what they cannot deny. Ensure they've used every trick of the book, to pull the eyes of the world, and in an attempt to cover up their mistakes.
8. The Human Rights Act can be seen as far-reaching, some would argue controversial in the UK's history of rights. At the same time, it can be described as a somewhat cautious document that provides the starting point for a



wider application of law to rights. In many ways, the freedom protections contained in the Human Rights Act were not new to people in the UK. The Act puts into UK law most of the clauses of the European Convention on Human Rights. The convention itself was devised following the end of the Second World War by the Council of Europe. UK law has played a significant role in the drafting of the Convention and the UK was among the first governments to ratify the convention in 1951. Rights are sometimes described as being of a positive or a negative nature. That's to say some can be expressed as a right to and others as freedom from. The 1998 act puts into place 15 specific rights and freedoms which include rights to liberty and security, a free trial, free expression, free elections and the right to marry and found a family. There are also freedoms from torture, from slavery or forced labor and from discrimination on grounds such as race, sex, religion, political opinion or social origin. The Human Rights Act has been described as the start of a process. The act itself does not expand on the provisions made by the European Convention which some would consider is following a baseline or a minimum standard for human rights.

9. Globalization is an overused and often misunderstood concept. We hear it all the time on news broadcasts and in any type of public discussion. But the starting point for understanding globalization is that it is industries and markets that globalize, not countries. That's why it's helpful to think of globalization as 'the integration of economic activities across borders'. But why does globalization matter? I would argue globalization matters because it means the rise of interconnectedness between countries and markets across the world. For example, one of the reasons why the financial crash of 2007/2008 was so serious was because the financial and banking systems of



countries around the world have become so closely interconnected with the globalization of markets.

10. I'm going to start with Vitamin D today, and I think probably most of you know that vitamin D is called the "sunshine vitamin". And it's called that because there is absolutely no dietary need for vitamin D if you get adequate sunshine. And I think the real important words there is "if" because it turns out that in certain climates which aren't near the equator, there's a big question as to whether or not you do get adequate sunshine. So, vitamin D really isn't actually a vitamin. It's a pro-hormone. When human beings evolve, we evolved in tropical climates and ran around naked with plenty of skin exposure to sunlight and so there was no dietary need for vitamin D at all. As humans migrated away from equatorial regions, they actually created a need for vitamin D in food because the sunlight wasn't adequate, I mean certainly, particularly during the winter months, it wasn't adequate at all.
11. One of the most amazing things that have happened even in my lifetime is the prediction of cosmology. When I started out forty-odd years ago, we thought we knew that the universe began a big bang, some people doubted even then. We thought the universe was about ten or twenty billion years old. But now for really very sound scientific reasons, we can say that the universe did start in a big bang and it's 13.8 billion years old. So, it's not 14, it's not 13 because a decimal point in there and that's a stunning achievement to know that. And we also know that the laws of physics that apply to tiny particles inside atoms also explains what happened in the big bang, you can't have one without the other. A very neat example of this is that when you apply nuclear physics, that kind of physics to understand how stars work, you find out that the oldest star in the universe is about 13 billion years old. So, their universe is just a little bit older than the stars. Fantastic, if we done it and



counted in the other way around and said that the stars were older than the universe, we would say science was in deep trouble. But it's not, everything fits together and we know how the universe began, we got to know how the way it is. The future that it 'll suspects we don't know quite well what's going, but we got some ideas, which are as good as those ideas we had 40 years ago about how big bang happened.

12. Why do we need to recycle water? Because we don't generate much new water. Chemically the process of generating water, which is basically taking hydrogen and oxygen and burning them to produce water, is not a process that happens a lot anymore. So, in terms of our total volume of water in the world, yes it is changing, but it's not changing significantly relative to the rate at which we are using or demand fresh new water. Now there are a lot of different areas of technology involved in water recycling, and we are later in the interview going to get to industrial use and the reclamation of sewerage. What about in the home at the moment; what sort of technology is being utilized in the home when we talk about water recycling? Well very little on average. Typically, in a modern home, we turn on the tap, we take a glass of water, we probably in turning on that tap flush ten glasses of water down the sink. We take a shower, we use fresh water, we do a whole range of things, and there is nominally very little recycling of that. It goes down the drain and it goes off to a wastewater treatment plant. There is actually very, very little recycling at a local level. People don't actually say well I'm now going to take the water I just used, put it through a sophisticated process and reuse it and have a closed loop. It's not a closed loop in the home.
13. Well, a historical linguist compares languages at several levels. You start out looking for basic vocabulary. All languages of the world, natural languages at least, have words for eye and head and nose and ear and for sky and earth



and for water, sand and for sibling, mother and father. They may not have words for uncle and aunt. It becomes much vaguer because in one culture an aunt is different when it comes from your father's side than from your mother's side. You don't include snow. Most people know what snow is but, in the tropics, you don't have it. So, you look for notions that are totally comparable and that occur everywhere in the world. You take the hundred or two hundred most universal notions in a human life, those which you call the basic vocabulary. So, you take basic vocabularies and languages that you think are related. You look for words that sound the same ...

14. We are from an organization called Nonhuman Rights Project, and we fight for legal rights of nonhuman animals. Drawing a line in order to enslave an autonomous and self-determining being is a violation of equality. We then searched through 80 jurisdictions. We chose the state of New York. Then we decided upon who our plaintiffs are going to be. We decided upon chimpanzees. We know the extraordinary cognitive capabilities that they have, and they also resemble the kind that human beings have. And so we chose chimpanzees, and we began to then canvass the world to find the experts in chimpanzee cognition. So now we needed to find our chimpanzee. Our chimpanzee, first we found two of them in the state of New York. Both of them would die before we could even get our suits filed. Then we found Tommy. Tommy is a chimpanzee. Tommy was a chimpanzee. We found him in that cage. We found him in a small room that was filled with cages in a larger warehouse structure on a used trailer lot in central New York. And so on the last week of December 2013, the Nonhuman Rights Project filed three suits all across the state of New York using the same common law argument. The court didn't approve our appeal because they think chimpanzees are not humans even though they have cognitive skills. We proved to the court that



chimpanzees also have cognitive capabilities, and they were not hearing us. We wanted the chimpanzees out, and we wanted them brought to Save the Chimps, a tremendous chimpanzee sanctuary in South Florida which involves an artificial lake with 12 or 13 islands -- there are two or three acres where two dozen chimpanzees live on each of them. And these chimpanzees would then live the life of a chimpanzee, with other chimpanzees in an environment that was as close to Africa as possible.

15. Now I'm going to talk about biology, especially applications used in biological systems. The biological system does not always stay the same, but it evolves. Biology engineering is the next level of engineering. Nowadays, scientists rewrite DNAs by cutting the pieces, and can create new organisms, so they can engineer and design nature. While scientists could only cut and paste DNA from one organism to another 40 years ago, they can now write and synthesize DNA to create new organisms with new techniques. If these organisms have a bacterium, when they go to the lab tomorrow, they will see millions of bacteria. Besides, scientists are building a cellular factory and cultivating millions of bacteria based on one bacterium. People also want to see a natural world in the future.
16. We are living through one of the greatest of scientific endeavours – the attempt to understand the most complex object in the universe, the brain. Scientists are accumulating vast amounts of data about structure and function in a huge array of brains, from the tiniest to our own. Tens of thousands of researchers are devoting massive amounts of time and energy to thinking about what brains do, and astonishing new technology, including computers and artificial intelligence, is enabling us to both describe and manipulate that activity. Humans can tell computers what to do and how to do, by giving the meaning of the certain words. Computers can operate as



programed, and develop systems and symbols. Computers work by analyzing messages into bytes, and this function is similar to human brains. Both human brains and computers are symbol processors, so computers have potential to bring artificial intelligence.

17. So happiness economics can help us get to these questions, and I'll try to give you some examples of this. Now, even though there's a lot of skepticism, originally about using this survey – surveys what people say make them happy. The number of reason that we are getting increasingly confident in doing so. One is that their consistent pattern – remarkable consistent pattern, determines well-being across large samples of people, across countries, across the world, and over time. Some of the basic things that make people happy, and I will show you some of these income health, marital status, employment status. Some of these very basic things are remarkably consistent across countries across world. So that gives us some sense that these surveys are picking up consistent patterns. And when we know what consistent patterns are, we can look how other things that very much more, affect people's well-being. The environment and equality, the nature's institution raging on living, and all kinds of other things that very much more.
18. It turns out consumers are incredibly smart. They combine a lifetime of experience with that brand, combined with whatever its designed appeal is, how it makes them feel, performance and price. And they do all that in a few seconds. So brands are essential to our business to allow us to deliver the increased consumer value associated with our products. We're not into the generic business of toilet paper. We're into probably about the softest product you're going to want to buy. We're not into a generic soap. We're into the best, you know, stain removing laundry detergent you're going to buy. But we're going to want you to remember that as the tide brand. Now, that



means there's a second moment of truth. If they do select you and they pay 50% more than they would have paid for Walmart's brand, when they get home, it'd better perform when it's used. And here's where the science starts, folks. There's an amazing number of fundamental engineering contradictions, right? Airplanes deal with, you know, weight and strength. I want something that's light but strong. That's an engineering contradiction. Once I deal with our things, got to be strong but soft. They have to be strong even when they're wet. Bright but not tear, liquids, mixtures, not common things, but they need... they can't separate. You don't want to shake before use, before you pour down in your washing machine.

19. Internet was invented by people who were good at programming, and people keep optimizing it for different purposes. So Internet has been growing organically. Internet can achieve many things but has advantages and disadvantages. The email system was designed by graduate students and researchers who know and trust each other. Using email needs trust between the senders and the receivers as the authentication process was not originally built in this system. Email authentication is a technical solution to proving that an email is not forged. In other words, it provides a way to verify that an email comes from who it claims to be from. Email authentication is most often used to block harmful or fraudulent uses of email such as phishing and spam. In practice, we use the term "email authentication" to refer to technical standards that make this verification possible. Initially, the email system didn't consider security because there was no suspicion between them at that time, and there was no authentication process built into this system.
20. Design of buildings is important according to architectural textbooks. At its roots, architecture exists to create the physical environment in which people live, but architecture is more than just the built environment, it's also a part of



our culture. It stands as a representation of how we see ourselves, as well as how we see the world. There are poorly designed buildings, but also some great building works. In the Victoria Era, architects designed buildings based on bricks and other materials. The design of flaws was based on lighting as it would not only affect appearance but also health conditions. The materials that buildings are made of also matter. For example, the design of ground floors must ensure that the building is able to withstand the weight of the higher levels. In the 20th century, many old buildings with design flaws were demolished or modified through a natural selection process, which means they are an altered state rather than an original state. This is an application of Darwin's theory of natural selection to modification of old buildings, which means buildings should adapt to the new world to survive, or be pulled down. So, it's argued to be unfair to criticize the demolition, although some people believe that whether to be remained should be decided based on their nature and functions. As the world became more and more connected, the styles evolved, but even in modern construction, there is still an importance in honoring the cultural nuances in the built environment.

21. Research has shown that in certain situations silent meetings actually work better. Specifically, if the goal of a meeting is to brainstorm or solve a problem, silent meetings have been shown to generate better ideas. But why? Solutions to a problem will often be a novel idea and novel ideas challenge convention. They can rock the boat and make people feel uncomfortable. But when participants gather around a table and generate written solutions in silence, a safe space is created. Novel ideas can emerge and people are less afraid of feeling embarrassed. Silent meetings also circumvent negative effects of something called production blocking. In a conventional meeting, only one person at a time can speak. As you wait your turn, the conversation



may shift and you may lose your opportunity to raise an idea. Silent meetings allow for everyone to express ideas simultaneously. So how do you create a silent brainstorming meeting? Have people write down their ideas independently then sort them into clusters, discuss, and vote on the ideas that people like. The key is to let the initial ideation phase happen independently and in silence so we can separate egos from ideas. Silence is just one alternative. Since meetings have different goals, there's no reason they all have to look or sound the same.

22. There are two kinds of stress. The first one is little stress, which happens in special circumstances such as exams or other competitions, and can be considered as a motivation to improve performances. You always think about stress as a really bad thing, but it's not. Look on the bright side, and some stress is good for you. Stress can be something that makes you better, but it is a question of how much, how long and how you interpret or perceive it. The other one is what we usually talk about, caused by poor time management. Good time management is essential if you are to handle a heavy workload without excessive stress. Time management helps you to reduce long-term stress by giving you direction when you have too much work to do. It puts you in control of where you are going and helps you to increase your productivity. By being efficient in your use of time, you should enjoy your current work more, and should find that you able to maximise the time outside work to relax and enjoy life. Poor time management is a major cause of stress. I'm sure we have all had the feeling that there is too much to do and not enough time. We can start to feel panicky and anxious and lose focus. It's important to note that you can have this feeling even if there's hardly anything to do at all. Hence, to release such stress, people could use a calendar to schedule and find a balance between play and work.



23. Because of the economic model, the newspaper industry has been shrinking drastically from the last 50 years of the 20th century in some states of America. Also as the economic model changed, newspapers increased the cash flow. However, there are still some newspaper industries losing money because of a decrease in advertising and buyers. They can't find buyers. Only a few newspapers have positive cash flow. Over 100 newspapers with cash flow in red had no money to publish the newspaper everyday. Some of them published three days per week. Small-sized newspapers only published once a week and had to go online. Some newspapers even disappeared. The staff working in newspaper industry decreased by 30-60% or more.
24. Today, poems remain an important part of art and culture. We often talk about the knowledge about the literature in poem. Poetry is probably the oldest form of literature, and probably predates the origin of writing itself. The oldest written manuscripts we have are poems, mostly epic poems telling the stories of ancient mythology. The English language in poems and poetries is difficult to understand, often giving readers a feeling of frustration and making it hard for readers to enjoy poetry. This is because poems use literary expressions. Poetry was once written according to fairly strict rules of meter and rhyme, and each culture had its own rules. Some poems incorporate rhyme schemes, with two or more lines that end in like-sounding words. We should learn to simply enjoy it, and to know more about literature knowledge.
25. A leader can define or clarify goals by issuing a memo or an executive order, an edict or a fatwa or a tweet, by passing a law, barking a command, or presenting an interesting idea in a meeting of colleagues. Leaders can mobilize people's energies in ways that range from subtle, quiet persuasion to the coercive threat or the use of deadly force. Sometimes a charismatic leader such as Martin Luther King Jr. can define goals and mobilize energies



through rhetoric and the power of example. We can think of leadership as a spectrum, in terms of both visibility and the power the leader wields. On one end of the spectrum, we have the most visible: authoritative leaders like the president of the United States or the prime minister of the United Kingdom, or a dictator such as Hitler or Qaddafi. At the opposite end of the spectrum is casual, low-key leadership found in countless situations every day around the world, leadership that can make a significant difference to the individuals whose lives are touched by it. Over the centuries, the first kind—the out-in-front, authoritative leadership—has generally been exhibited by men. Some men in positions of great authority, including Nelson Mandela, have chosen a strategy of “leading from behind”; more often, however, top leaders have been quite visible in their exercise of power. Women (as well as some men) have provided casual, low-key leadership behind the scenes. But this pattern has been changing, as more women have taken up opportunities for visible, authoritative leadership.

26. The distinction between pyramid schemes and legitimate multi-level marketing can be particularly hazy. In theory, the difference is that the members of the multi-level marketing companies primarily earn compensation from selling a particular product or a service to retail customers, while pyramid schemes primarily compensate members for recruitment of new sellers. In practice, though many multi-level marketing companies make it all but impossible for members to profit purely through sales. And many pyramid schemes, like Vemma Nutrition, disguise themselves as legal multi-level marketing businesses, using a product or service to hide the pay-and-recruit structure. Many pyramid schemes also capitalize on already existing trust within churches, immigrant communities, or other tightly knit groups. The first few members are encouraged to report a good experience before they



actually start making a profit. Others in their network follow their example, and the schemes balloon in size before it comes clear that most members aren't actually profiting. Often, the victims are embarrassed into silence. Pyramid schemes entice people with the promise of opportunity and empowerment. So when members don't end up making money they can blame themselves rather than the scheme, thinking they weren't tenacious enough to earn the returns promised. Some victims keep trying, investing in multiple schemes, and losing money each time.

27. You sit down to take a math test, and you feel your heart beat faster and your palms start to sweat. You get butterflies in your stomach, and you can't concentrate. This phenomenon is called math anxiety, and if it happens to you, you're not alone. Researchers think about 20% of the population suffers from it. Some psychologists even consider it a diagnosable condition. But having mathematical anxiety doesn't necessarily mean you're bad at math – not even close. Laurent Schwartz went on to win the Fields Medal, the highest award in mathematics. People might think that they're anxious about math because they're bad at it, but it's often the other way around. They're doing poorly in math because they're anxious about it. Some psychologists think that's because math anxiety decreases a cognitive resource called working memory. That's the short-term memory system that helps you organize the information you need to complete a task. Worrying about being able to solve math problems, or not doing well on a test, eats up working memory, leaving less of it available to tackle the math itself. People can suddenly struggle with even basic math skills, like arithmetic, that they've otherwise mastered.
28. OCD, which stands for obsessive compulsive disorder has two aspects: the intrusive thoughts, images, or impulses, known as obsessions, and the behavioral compulsions people engage in to relieve the anxiety the



obsessions cause. The kinds of actions that people often associate with OCD, like excessive hand washing, or checking things repeatedly, may be examples of obsessive or compulsive tendencies that many of us exhibit from time to time. But the actual disorder is far more rare and can be quite debilitating. People affected have little or no control over their obsessive thoughts and compulsive behaviors which tend to be time consuming and interfere with work, school or social life to the point of causing significant distress. This set of diagnostic criteria is what separates people suffering from OCD from those who may just be a bit more meticulous or hygiene obsessed than usual.

29. Why do we sometimes fail to perform up to what we're capable of when the pressure is on? It may not be so surprising to hear that in stressful situations we worry. We worry about the situation, the consequences, what others will think of us. But what is surprising is that we often get in our own way precisely because our worries prompt us to concentrate too much. That's right—we pay too much attention to what we're doing. When we're concerned about performing our best, we often try and control aspects of what we're doing that are best left on autopilot, outside conscious awareness and as a result, we mess up. Think about a situation where you're shuffling down the stairs. What would happen if I asked you to think about what you're doing with your knee while you're doing that? There's a good chance you'd fall on your face. We as humans only have the ability to pay attention to so much at once, which is why, by the way, it's not a good idea to drive and talk on the cell phone. And under pressure, when we're concerned about performing at our best, we can try and control aspects of what we're doing that should be left outside conscious control. The end result is that we mess up. My research team and I have studied this phenomenon of overattention, and we call it paralysis by analysis.



30. So how does a growth mindset do that? It turns out that there are physiological manifestations to mindset. Brain scans show that for people with a fixed mindset, the brain becomes most active when receiving information about how the person performed such as a grade or a score. But for people with a growth mindset, the brain becomes most active when receiving information about what they could do better next time. In other words, people with a fixed mindset worry the most about how they are judged, while those with a growth mindset focus the most on learning. There are other consequences of mindset people with a fixed mindset see effort as a bad thing, something that only people with low capabilities need, while those with a growth mindset see effort as what makes us smart, as the way to grow. And when they hit a set-back or a failure, people with a fixed mindset tend to conclude that they are incapable So to protect their ego, they lose interest or withdraw. We observe that as lack of motivation. But behind it is a fixed mindset, whereas people with a growth mindset understand that set backs are part of growth. So when they hit one, they find a way around it. Like Josh Waitzkin did when he lost in chess or in martial arts.
31. There is a lot that we can do to change mindsets, but here are three things that any of us can do to instill a growth mindset in ourselves and in those around us. First, recognize that the growth mindset is not only beneficial but it is also supported by science. Neuroscience shows that the brain changes and becomes more capable when we work hard to improve ourselves. Second, learn and teach others about how to develop our abilities. Learn about deliberate practice and what makes for effective effort. When we understand how to develop our abilities, we strengthen our conviction that we are in charge of them. And third, listen for your fixed mindset voice, and when you hear it, talk back with a growth mindset voice. If you hear, "I can't do it," add,



"Yet. My request to you today is that you share this knowledge about the growth mindset with your family, friends, and schools so that all of us can go and fulfill our potential.

32. And empathy has two qualities: One is the understanding part of it. This is just a regular definition: the ability to understand and share the feelings of another. And the emotional part. Empathy has basically two channels: One is the body channel, If you talk with a sad person, you're going to adopt a sad expression and a sad posture, and before you know it, you feel sad. And that's sort of the body channel of emotional empathy, which many animals have Your average dog has that also. That's why people keep mammals in the home and not turtles or snakes or something like that, who don't have that kind of empathy. And then there's a cognitive channel which is more that you can take the perspective of somebody else. And that's more limited. Very few animals, I think elephants and apes, can do that kind of thing So synchronization, which is part of that whole empathy mechanism, is a very old one in the animal kingdom.
33. Loneliness creates a deep psychological wound, one that distorts our perceptions and scrambles our thinking. It makes us believe that those around us care much less than they actually do. It make us really afraid to reach out, because why set yourself up for rejection and heartache when your heart is already aching more than you can stand? I was in the grips of real loneliness back then, but I was surrounded by people all day, so it never occurred to me. But loneliness is defined purely subjectively. It depends solely on whether you feel emotionally or socially disconnected from those around you. And I did. There is a lot of research on loneliness, and all of it is horrifying. Loneliness won't just make you miserable; it will kill you. I'm not kidding Chronic loneliness increases your likelihood of an early death by 14 percent. Fourteen percent!



Loneliness causes high blood pressure, high cholesterol. It even suppresses the functioning of your immune system, making you vulnerable to all kinds of illnesses and diseases.

34. Like any form of systematic oppression, fatphobia is deeply rooted in complex structures like capitalism, patriarchy, and racism, and that can make it really difficult to see, let alone challenge. We live in a culture where being fat is seen as being a bad person, lazy, greedy, unhealthy, irresponsible, and morally suspect. And we tend to see thinness as being universally good; responsible, successful, and in control of our appetites, bodies, and lives. We see these ideas again and again in the media, in public health policy, doctor's offices, in everyday conversations and in our own attitudes. We may even blame fat people themselves for the discrimination they face because, after all, if we don't like it, we should just lose weight. Easy! This anti-fat bias has become so integral, so ingrained to how we value ourselves and each other that we rarely question why we have such contempt for people of size and where that disdain comes from. But we must question it because the enormous value we place on how we look affects every one of us. Do we really want to live in a society where people are denied their basic humanity if they don't subscribe to some arbitrary form of acceptable?
35. A huge shopping revolution is happening in China right now. Shopping behaviors, and also technology platforms, have evolved differently than elsewhere in the world. For instance, e-commerce in China is soaring. It's been growing at twice the speed of the United States and a lot of the growth is coming from mobile. Every month, 500 million consumers are buying on mobile phones, and to put that into context, that is a total population of the United States, UK and Germany combined. But it is not just about the scale of the e-commerce, it is the speed of adoption and the aggregation of the



ecosystems. It took China less than five years to become a country of mobile commerce, and that is largely because of the two technology platforms, Alibaba and Tencent. They own 90 percent of the e-commerce—pretty much the whole market—85 percent of social media, 85 percent of internet payment. And they also own large volumes of digital content, video, online movie, literature, travel information, gaming. When this huge base of mobile shoppers meets with aggregated ecosystems, chemical reactions happen. Today, China is like a huge laboratory generating all sorts of experiments. You should come to China, because here you will get a glimpse into the future.

36. So some scientists wondered how much these chemosignals might play a role in emotional contagion among humans. In a 2012 study, one team of researchers designed an experiment to find out. In it, one set of participants watched videos that would provoke either fear or disgust, while wearing sweat pads in their armpits. Afterward a second set of participants were asked to smell those sweat pads, and the experimenters recorded their emotional state. Conveniently, the emotions of fear and disgust tend to provoke opposite physical responses. When you're scared, your body will typically try to take in more sensory information. So your face will open up as you breathe more deeply and scan the environment with your eyes. On the other hand, when you're disgusted, you'll generally reject sensory information. Like you'll walk past a row of portapotties and you'll scrunch up your face, take really shallow breaths and look around less. Now, these reactions aren't always super visible to the eye, but by monitoring their eyes and facial movements, the researchers could tell which facial muscles were activated in each person, and which emotional state their expressions reflected. And the authors found that participants who sniffed disgust sweat tended to display



disgust which, you know, seems like a normal reaction when you're sniffing sweat pads, but also, those who sniffed fear sweat would also display fear.

37. In fact, a lot of what we perceive as flavor comes from odor molecules that float up to our smell receptors through our mouths. And as with taste, studies have shown the visual cues we get from color help us identify smells more quickly and accurately. In fact, one 1981 study found that the source of a smell doesn't have to be the corresponding color. The color and odor just sort of need to be in the same place. Like, the author of this study found that if an odor was presented along with colored words or patches, subjects could identify it faster and more accurately than odors presented with inappropriate color cues. So as an example, the smell of lemon would likely be easier to identify in a yellow room than in a pink room. Which sounds strange. But what all this research adds up to is very clear evidence that color influences our perception of smell and taste. What's less clear is why this happens. Scientists have not nailed down one single answer, but there are a few possibilities. The first is that the appearance of food or drinks produces what some researchers call an expectancy based effect. Basically the color of something tells you what to expect, and your expectation is actually enough to overpower reality and influence the way you identify a taste or smell. This idea is similar to the placebo effect, where people's beliefs about a treatment actually change the symptoms they experience. Another way color could influence how we identify a flavor or smell is by directing our attention.
38. A very famous study done by colleagues at Duke University flashed either the Apple logo or the IBM logo to two randomized groups of participants. The study found that after being subliminally exposed to the Apple logo, compared to when you'd been exposed to the IBM logo, participants performed better on creative tasks.



And the argument is that Apple has been telling you this story over and over again, that Apple is the brand for hip, cool, fun, creative people.

This is the true power of brands. They can influence our behavior in ways that extend way beyond the point of sale. So to what degree can the influence of brands wreak havoc on our ability to make rational spending decisions? This is Americus Reed. He studies identity and marketing at the University of Pennsylvania

When I make choices about different brands, I'm choosing to create an identity When I put that shirt on, when I put those shoes on, those jeans, that hat, someone is going to form an impression about what I'm about. So if I'm choosing Nike over Under Armor, I'm choosing a kind of different way to express affiliation with sport. The Nike thing is about performance. The Under Armor thing is about the underdog. I have to choose which of these different conceptual pathways is most consistent with where I am in my life.

And once a consumer makes that choice their relationship with a brand can deepen to the point where they identify with that brand like family. And once you identify with a brand, it can shape the way you behave.

39. One of the things I do in my psychology seminar is I assign papers to students and then I extract out propositions from the papers. And they're propositions that are debatable. Well, what you want to do as an educator is you don't want to put forward a specific point of view. Not when what you're trying to do is to discuss a contentious issue! What you want to do is teach people how to take an argument apart and formulate a response. And to do that it's actually extraordinarily useful to arbitrarily assign positions to people. It's like, I don't care what you think, you're "pro" on this topic, generate an argument. And what that does is it vastly widens people's conceptualizations of the argumentative space. Because most really contentious issues—gun control,



abortion, those sorts of things—there is a lot to be said on both sides. They wouldn't be contentious issues otherwise. They're issues that don't go away. Well why? Well because they're so complex. They don't lend themselves to easy unitary solutions. One of the things you want to learn if you're educated is that on any complex subject there's a lot to be said. And that you're going to come at that with your particular ideological bias, let's say, your temperamental bias. Maybe even you might even come at it with things you've actually thought about, although that's pretty damn rare. But you need to learn just exactly how localized your viewpoint is.

40. So the three things that I think it really takes to be an effective Manager or these. First of all, learn to delegate, you know. The most important thing is you have to trust your people to do work themselves and if you're in the business of overseeing every single decision they make you're not gonna be a very effective manager because you'll be stretched too thin and you'll certainly never be able to rise to higher levels of Management where you're overseeing dozens or hundreds or even thousands of people, so that's the first thing. The second is work hard to understand what the people underneath you do. They have this there's this tendency to think you know. If I came up through one skill as I oversee people with different skills. I'm just gonna trust them to get it right and you have to. Of course you're not gonna be able to understand what everybody on your team does all day but if you can understand their motivations, their terminology, their way of communicating. You're gonna be a lot better as a manager. And finally, this is a kind of simple thing, but have as many one-on-one meetings as you possibly can. I think one thing that there's a lot of evidence is that having one-on-one meetings especially with your direct reports is one of the strongest predictors of success as a manager. Big



meetings aren't good. Little meetings can be very good. It's time consuming. It's hard, but it's a thing that really correlates with success as a manager.

41. Now, what's really interesting about this time is that because of coronavirus kids have all this time to self-reflect and self-assess. And so we should be actively promoting meta learning during this time. And so what I've suggested is that we promote the idea of a learning journal. So the idea is this. Let kids decide their own learning path Let them decide what they want to learn It could be if they want to learn how to cook. It could be they want to learn how to drive a car. It doesn't matter. What's important is that they write down their learning journey. And so there are three components to a learning journal. First is to define the goal concretely and precisely It's better to say I want to be able to run a marathon in less than four hours than it is to say I want to finish first in a marathon. Second is to write down the learning process. So think of a cooking recipe and writing down how you cook something. The third and most important component of a learning journal is to write down your observations, collect data, self-reflect, and develop new learning strategies for yourself. And during this process teachers don't go away Teachers play a very important role in that they become coaches. I would say that being a coach has three main functions. The first function is to motivate the student Second function is to identify witnesses in the learning journal. And the third and most important function is to constantly suggest new learning strategies.
42. I encourage people to provide feedback to one another. It's a gift. It's also often part of your job. But too often, we don't go far enough. So I suggest that we create psychological contracts. You don't do it with everybody, but it's an opportunity to agree to exchange extremely honest feedback by mutual consent in a safe and trusting way. I say to somebody who trust, whose opinion matters to me I'm getting up on stage. Let me know afterwards Was !



clear? Did I give too much information, too little information? Did I move too much? Did I engage with the audience? Tell me the truth." That's an immediate request for honest feedback and we are creating a psychological contract. You're not going out of bounds if you tell me exactly what you think. I also tell people if they're going into a meeting, pick the person who's going to pull on their ear to let you know you're going off topic, whether your data is really not holding up in that room and getting an immediate sense from somebody, the unvarnished truth about what's going on.

43. We know that the more comfortable we feel around someone, the less effort we will make about how we appear and conversely, the more anxious we are about the judgement of others, the more our reflection has the power to horrify us. The issue is never that of our appearance, it is about our sense of our vulnerability to humiliation. When we meet people who are perpetually sick with worry that they are not attractive enough, we should not rush in with physical compliments, this is only to foster and unwittingly reward an aggravating criterion of judgement. We should learn to spot the wound in their early relationships that have made it so hard for them to trust that they could matter to others in their basic state. And that therefore perpetually evokes in them an unflattering self-image. They are not ugly per se, they were when it mattered—left painfully unloved and ignored to an extent that they are liable never to have recognized or mourned adequately, their arrival in the world did not delight a few people as it should have done, and therefore need compassion, sympathy and emotional validation far more than they will ever require the tools of outward beautification. Feeling ugly stems from a deficit of love, never of beauty.
44. When economists study gift giving, they're very concerned with one thing waste. Let's say hypothetically that my grandmother buys me a sweater that I



hate, and your grandmother buys you a sweater that you hate. Sorry, grandmothers. Before long, we're talking about billions of dollars in waste in the economy Economists call it "deadweight loss and they estimate that up to 30% of the value of all gifts is wasted. That means the companies wasted time making the gift, It means the givers wasted time giving it out, and it means the recipients wasted time returning it. There's a way to fix this. There is a very specific gift that is always worth the exact same to both the giver and the receiver. It's called cash. The good thing about cash is that the receiver can always make use of 100 percent of its value. The bad thing about cold, hard cash is that it's cold. It doesn't say anything except, "Here take some money." So this is a conundrum.

45. Let's imagine you're about to hold a meeting to make an important decision. And you are in a hurry. Is it better to hold the meeting standing up or sitting down? Researchers from University of Missouri asked groups of people to imagine that they'd crashed on the moon, and then only a few pieces of equipment had survived the crash. The groups were asked to identify which bits of equipment were most important, and their decisions were compared to the correct answers supplied by NASA. Some of groups held their meeting standing up, and the others held them sitting down. Sit-down meeting lasted 34% longer, but two types of meeting produced the same number of correct decisions. And so next time you need to hold a meeting in order to make an important decision, you can save time by simply standing up.
46. So, why do humans feel awkwardness? According to Ty Tashiro, author of the appropriately titled book Awkward this is part of human evolution. In hunter-gatherer times, sticking with social norms, like saying thank you when someone gives you something, or waiting your turn for food, was a way to keep tight-knit groups together and keep out anyone who might be a threat.



Today we're still sensitive to tiny, even silly social customs like responding to how are you with "fine as a sign of mutual respect. When you deviate from those norms, it's awkward And for some people, these social graces just don't come naturally Take eye contact, for example. Studies say the right amount of eye contact during conversations is about 3.3 seconds. But awkward people don't instinctively do that. But when we don't look people in the eyes, it makes them feel socially ostracized. According to Tashiro's work, awkward people tend to look at other parts of the face, like the chin or the ear more than the eyes. Therefore they might end up alienating the person they're talking to, and missing out on important information about how that person might be feeling. The good news is that if your brain isn't great at social cues, it might be good at other stuff instead. Research shows that many autistic people are amazing at memory pattern recognition and problem solving.

47. When the Second World War came to an end, the British took some German civilians around the Belsen concentration camp. But why they do this? To show them what their own soldiers had done during the war. It was reported that one of the civilians had said "What terrible criminals these prisoners must have been to receive such treatment Not uttered by a guard, but by a civilian. The just world hypothesis is a cognitive bias in which we as human beings try to make sense of a world that is unfortunately unjust We like to believe noble acts lead to reward, and bad actions result in punishment So when we see bad things happen to good people and good to bad, there is a tendency to view such situations in a way that reduces this sense of guilt or discomfort.
48. Human beings in the West Savannah need each other in order to survive. In today's modern society, people need protection from other people too. was the first to acknowledge that. So if we agree that this is one of the first fundamental functions of society, we should in fact reject any human



behaviour that goes against this theory. So it's true Beethoven was a rude and vulgar person, who probably suffered from the bipolar disorder Van Gogh lost his mind Other artists can be labelled as eccentric, anti social or even estranged from society. Nevertheless, as long as they don't cross over the line and breach the basic human contract, we may savour and rejoice the art and creations. This is why I am able to enjoy Beethoven's magnificent creations. Yet on the other hand, as a daughter of holocaust survivor I am unable to listen to the music, magnificent as it maybe of composers who believe, for example, in the final solutions of the Jews. An artist that breaches this contract, that endangers the freedom and safety of member of society, regardless of the religion, fate, believes, or background, by a direct action, and this is very important, only by a direct action, should lose his place in society, together with a privilege platform, of which he presents his creativity and art. And along with this, the power, we attribute to it. Unless he regrets his action. Yes, apology can be accepted.

49. The main problem we have isn't an issue of actually doing the work It's just starting. Starting is the hardest part. So how do we make it easier? Take your large task and break it into something small. Once you think you've made it small, make it even smaller than that. Do the same with your time commitment. It's great that you blocked out the next three hours to do work, but guess what, studying for three hours is incredibly daunting. You do not want to do that. You want to watch Med School Insiders YouTube videos instead. Here's how you get past that you're not studying for three hours anymore. Instead, you're studying for only 25 minutes, which is a lot easier than 3 hours. After those 25 minutes are done, you're getting a break, guaranteed. Seems simple enough. This is the Pomodoro technique in action, and it is one of my favorite study hacks. Early on in the day, I generally like to knock out the



difficult tasks first, since it makes the rest of the day a breeze. But I don't always get the luxury of doing that. There are instances where starting is so difficult, that there's no way I would be able to tackle the most daunting task first. In those instances, I start with something easy. That can be something as simple as doing my laundry or washing dishes. Once I've built the momentum of getting something small done, having a small victory, it becomes much easier to step it up to something a little bigger.

50. Successful economies and cultures are built on trust. But a number of high-profile data breaches and privacy intrusions have caused anxiety for consumers and gotten the attention of Washington. New legislation may be needed to bolster confidence in the digital marketplace. But we've got to be thoughtful about it. So we don't strangle the golden goose that we call the Internet. Three points. Explosive growth of digital services shows that the benefits of data flows far outweigh the costs Slow productivity growth in many industries stems from a lack of information intensity-too little data. Policies should thus encourage the use of more data, while putting consumers in control of sensitive information. A new national privacy law would consolidate existing industry specific laws prevent a patchwork of conflicting state laws and clarify the FTC's enforcement strategy for the digital age. But regulations cannot solve every problem. Evolving social norms, more robust institutions and new privacy promoting technologies will actually do most of the heavy lifting of protecting our privacy and promoting data flows.
51. More than 20 years ago, Ron Haskins and Isabel Sawhill at the Brookings Institution sifted the social science data and found that anyone who finishes high school, works full-time, and marries before having children almost never experiences poverty. They called this the "success sequence What the sequence misses is that each of these steps is enormously complex. It takes a



lot of parental attention, energy and love before a child crosses the stage at a high school graduation Social networks are critical to finding a full-time job. Having marriage just arguably the most complex challenge of all. Looked at this way it's not so much a sequence as a decades long dialogue between the individual, their family and friends, and the community. Education, work, and marriage are the marks of a successful life as it unfolds. We owe Haskins and Sawhill a profound thanks for bringing us the success sequence. The job now is developing the strategies for strengthening families and communities so that more people find the path and stay on it.

52. Since its founding, America has enjoyed population growth famously fueled by high immigration rates. But Americans have historically had large families compared to other countries, as well. But times are changing Birth rates today have fallen to their lowest point in history. And while birth rates have historically been connected to economic cycles, the present decline is happening during good economic times. The causes of the decline will be familiar for many viewers, high housing costs, less dating and marriage, economic and social uncertainties. And even though surveys show Americans still want big families, there are no cheap, easy solutions to fix this problem. And unfortunately, the problem is self-reinforcing. Fewer children means that future generations will have fewer workers serving more people, who themselves will have less time to bear and care for children, or retirees for that matter. Even if Americans reform housing policy, or offer greater financial support for families, our birth rates will continue to decline, and the fast economic growth that made America so strong in the 20th century could vanish in the 21st.
53. General Electric developed several medical devices in emerging markets that were a little simpler and a lot less expensive. In China, they developed a



compact portable ultrasound machine from scratch. It cost just \$15,000 compared with over \$100,000 for their high end model. Although it didn't have all the bells and whistles, it was a hit in China's rural clinics. That's when G.E. realized that American doctors could use it too. Not to compete with the more expensive product, but for new uses. In situations where portability was important or space was tight. This is what Vijay Govindarajan and Chris Trimble call reverse innovation. Not only does it result in products that address market needs in emerging economies, it also creates new sales opportunities in developed ones. Reverse innovation can be tough to pull off but there are two reasons to try First, because emerging markets have larger populations and lower per capita GDP's, they're especially sensitive to many of the forces affecting competition in global markets today. Products built for emerging markets are more likely to be well suited to issues that ultimately affect every market. Second, as emerging market companies grow, they'll be looking to export their own products often at much lower prices, which incumbent firms will find tough to beat Practicing reverse innovation today will help protect incumbent firms from being disrupted by low cost competitors tomorrow. Red oceans represent existing industries and markets where industry boundaries and the rules of competition are well-defined Companies strive to outperform rivals and grab a bigger share of existing demand. As the space gets crowded, fierce competition turns the water bloody Competitive or market competing strategy is about how to occupy red oceans. By contrast, blue ocean, or market creating strategy, is about how to create and capture unknown markets where demand is created rather than fought over in some cases, this spawns entirely new industries, but most blue oceans emerge when a company alters the boundaries of an existing industry The simultaneous pursuit of value and cost is the logic of Blue Ocean strategy. Companies that



can create blue oceans usually reap the benefits for 10 to 15 years, because they are hard for rivals to copy. To realize blue ocean potential, companies should chart a strategic course, past traditional industry boundaries to create new market space.

54. The idea behind recycling is simple By breaking old products down and converting them into something usable again, we conserve natural resources. It saves forests, cuts emissions, and means less pollution. Sadly it's not that simple. Recycling is deeply entwined with our economic system, and right now doesn't make much economic sense. It often costs more to recycle than it does to just throw things away, which is bad news for the environment. So is it worth paying for? Recycling saves serious amounts of energy, which in turn means lower greenhouse gas emissions. Making cans from recycled aluminium uses 95% less energy than mining and using raw materials. Recycling steel saves 60%, as does recycling paper So it boils down to how quickly we're able to remake the way we make things. As of 2018, we were track to generate waste at more than double the rate of population growth through 2050, so we can expect plenty more rubbish to pile up. Some communities are running out of room to store all their trash and have stopped collecting plastic, paper and glass. Others are just sending material to landfills or burning it. Such issues have given environmentalists cause to suggest more radical approach is needed, saying we should rethink our relationship with material and be using less stuff in the first place.
55. I am going to talk today mostly about what I do as a curator here at the National Museum of Australia but I want to draw some generalities from that in terms of a series of curatorial practices, tools, techniques and methods that I think could be of interest to your students and to you in developing extension history courses. I want to talk about what I do as a curator and then from that



also talk a bit about the kinds of history that I think museums are particularly good at creating and communicating. I think this is something I would really like to discuss because it is not necessarily very well understood is that I think museums, as Dave insisted by putting up my quote in his slide, create a very particular kind of history. It's not the kind of history that gets created in books or in dating films or in compositions, it's a very particular kind of history that grows out of the fact that museums are centrally interested and defined by their collections. I should say that is not an uncontested view of museums but it is certainly my view of museums. Curators try to understand material culture as evidence of other people's lives as a means to try to understand other people - what they look like, what they did, how they made a living, what they hoped for in their lives, how they tried to construct their world and why they made particular choices. One way in which curators differ from other historians is therefore in terms of how we interrogate the past, what elements we use to communicate the past. Most academic historians are trained very much in the discipline of words and they concentrate on words still today, although it is changing a little bit. If you go through university history primarily you are encouraged to draw on things like archival accounts, manuscripts and now oral histories, and most of that work is actually promulgated in the form of books. There are also other kinds of historians. Obviously, filmmakers and photographers concentrate on creating images of the world and arranging them in meaningful sequences, but curators attend to objects. We look at objects as evidence of the past and try to arrange objects in meaningful ways called exhibitions.

56. What's the literal definition of "risk"? Business schools use risk analysis. So, what do you mean by "risk", and we need a dictionary? When you look at dictionary, this is literal, literal definition of risk. What it says is, the definition for example,



the possibility of injury, a dangerous element or factor, chance of, degree or possibility of such loss, and so on. So, risk has two parts, as you look at the literal definition of risk. One part is the consequence of some kind of particular danger, hazard loss. And the other is about the probability, of it: chance and consequence, OK? And then at least just as English language concerns, when you look up the word of safe and safety, which you'll learn as, it's a little bit of a loop, a little circular argument that free from harm or risks, secure from danger, harm or loss, the condition of being safe and so on for all. And why we take out of it? At least when we talk about safe at least in English language, we are talking absolute something is safe, or it sounds safe.

57. English, as you have already read, is not a pure language. I don't think there really are any pure languages in the world. But English is definitely not a pure language. English, in fact, has borrowed from over 350 languages in its history. So, it's a variety of many languages. Some people say it's like a dog, a mongrel dog, a dog that has been made up of many different dogs. The English language is like that. By looking at the history of the English language we learn about the history of the English people. The two things are closely connected. So, in fact, today we are not only learning about language but we are learning about history. The fact that English has borrowed words from over 350 languages has been viewed differently throughout history. So, for example in Shakespeare's time people were very angry about words which were not, they thought, original English words – words which came from other languages, they didn't like them.
58. So various conclusions. Yes, bees are in decline. These declines are well-documented. They are real and supported by good, strong scientific evidence, which is the only of these counts. The drivers of decline on many varied depending on species. The effects of pollinator loss could be



absolutely huge. So, is it a catastrophe? Not yet. But it could be. On the positive side, we are aware of the problem. Awareness is being raised all the time and people are taking actions. Before fixing is missing, you can recognize the problem. At least it's been done.

59. Socialism - the word invented in the late 1810s, communism - the word first appeared in 1840. None of these things were words, much less ideologies before the French Revolution and the French revolution gives birth to much of the modern political world. Have you not wondered why we refer to the political left, and the political right? Does this have any inherent bodily signification? No. Left and right in politics comes from the original designation of the Deputies who sat to the Left of the speaker's, podium and those who sat to the right of the speaker's podium in the National assembly of 1789-1790. The left were those who were seen as progressive wanting to change, the right were seen as those wanting to conserve elements of the old regime. It's time for this young loggerhead turtle to go to work. We can tether turtles in these little cloth harnesses, put them into this tank and dull swimming place. University of North Carolina biologist Ken Loman studies sea turtles that are programmed from birth for an extraordinary journey. Mother turtles buried the eggs on the beach and then returned to the sea and the eggs hatch about 50 to 60 days later. Support for the National Science Foundation, Loman is learning how these reptiles use the Earth's magnetic field to navigate a 5-to-10-year journey around the Atlantic Ocean. The turtles seem to inherit a set of responses that tell them what to do when they encounter specific magnetic fields at particular locations. This animal magnetism can be a lifesaver and one field off Portugal triggers the turtles to turn south. If they don't, they likely die, swept into frigid North Atlantic waters. In one lab test turtles responded to magnetic field similarly to what they would encounter off the coast of Florida.



The great majority of them turned South East. This is an exciting finding because southeasterly orientation in this part of the world would presumably take turtles further into the Gulfstream. So, the turtles actually have what might be considered accrued global positioning system that is based on the Earth's magnetic field. And check out this experiment. These turtle moves may look odd. The turtles will actually act out their swimming behavior in air. But this wave simulator re-creates the first environmental cue hatchling turtles respond to. Swimming into waves is a highly reliable trick that the turtles used to guide themselves offshore.

60. About the importance of tea, one of the three most favorite drinks in England in which the others are chocolate and coffee. Drinking tea in England was a symbol of social freedom, was very expensive and could be ordered by men in public. Men had tea in coffee houses, making trades and chatting business, while women could only drink tea in private places or wait for their husbands to bring tea back home.
61. The question today of what makes a luxury brand, a luxury brand and how do we distinguish it, is very hard to answer. The standard business response is to say they are more exclusive. And we get exclusivity small amounts of the product available. The reality, however, of luxury brands is that they are sold in their millions, and in some cases, are not priced that much higher than the standard output. The only way I can really answer your question is to say, it is all relative. As you said in your introduction, it wasn't that long ago in Australia that we would have considered two televisions to be luxury, or even further back, one colour television. And you can make a strong argument, for example, that Starbucks in china, right now, is a luxury purchase because of its cost, because of how frequently it is purchased by many people. So, I think the long answer is a complicated one, but the answer is, it depends who you



talk to. I think in the business community what we would say, is that there is a small cluster of more expensive brands which have a distinct strategy that we would identify as being luxury brands. And they start with the Rolls Royces and the Tiffanys and the Louis Vuittons of the world. And, I think that tends to be how we see them.

62. Since the discovery of DNA structure, people have believed that genes have an impact only on people's physical structure. But the study of mapping of genes in 2001 found that there is a genetic responsibility to human's physical and psychological behaviors, which has changed the way we understand our behaviors. The research on genes has provided integrating information, and the findings can benefit biologists, psychologists and neuroscientists.
63. Abstraction is an important layer of computer because people cannot do anything on computers without symbolic system. Language is a classical symbolic system. People use sign language and movements when they do something at the same time. For example, people asked for help by waving hands when they repelled rhinoceros at the same time. Thus, human can use hands to communicate when they do things simultaneously.
64. "But what are the dangers of keeping these drugs at home?" "There are a number of dangers. Parents should know that leftover drugs are dangerous because they may be accidentally ingested by children. Either adults don't keep the bottles properly closed and stored or because even many kids can sometimes open childproof lids. Patients may use the drugs after their expiration date. The leftover drugs may be taken for the wrong reasons. For example, someone may have a viral infection and self-prescribed to left over into microbial that was prescribed for a bacterial infection. But that drug will have no effect as the viral infections. Drugs that are left over might be given to or taken by someone else who may have a serious allergy to the medicine



and who for that reason would not be prescribed to medicine under the supervision of a physician. Finally, inappropriate use of drugs promotes drug resistance if the drug is taken for the wrong indication, the wrong duration, or in the wrong dosage. "Todd, what can people do about this how can the situation be improved?" "I think physicians, patients and parents of patients can take steps to improve the situation. First of all, physicians should prescribe the drug only when appropriate, only in the correct amount and only for the correct duration. Also, the physician must stress to the patient that the full course of the drug must be taken. This is recommended even if symptoms resolved before the end of the prescription and parents of children on antibiotics need to ensure they complete their course as well."

65. Amory Lovins is an American consultant experimental physicist and he has been active at the nexus of energy, resources, economy, environment, development and security in more than 50 countries for over 40 years. He pays attention on energy saving and how to use energy in a more efficient and sustainable way. He built a house with plenty of energy-saving concepts. He's an unusual character with a wide range of knowledge and a genius, but he's not a scientist. He has a consulting company and lives mountain. For 30 years, he used a lot of ways to save energy and solved problems with technologies that already existed and demonstrate them. Some people think he is so crazy. A female writer wrote a book about him which is called Mr. Green.
66. The Education Leadership Initiative was started by Dean Bob Joss, of Stanford Graduate School of Business. He talked a lot about the importance of education leadership. Education leaders need to be dynamic and entrepreneurial change agents. Managing is not enough --increasingly leaders must rise to the challenge of changing their organizations through



innovative, problem-solving strategies. So we are combining forces from our School of Education and School of Business to support the development of management skills and leadership capacity for current superintendents and other central office leaders. The purpose of School of Education is learning while the purpose of School of Business is management. Now many institutes are providing education leadership learning opportunities, for profit or non-profit. We want to make sure that here at Stanford, we are not only delivering the services but with good quality. The program incorporates case-studies and research-based presentations, discussions, and exercises. Participants also collaborate and build relationships through group work. However, they must realize that it is their own responsibility to achieve and accomplish – what others can do does not indicate what you are capable of.

67. I suppose it's the truism to point out that citizens need to be well informed. Maybe it's something we take for granted in our liberal western democracies. But there will be plenty of societies, well, that is run counter to explicit government policy. Many areas of the world still suffer from the reverie of the deliberate missing information. Governments, especially the unelected ones, but also some elected ones, have denied the events that have ever taken place. They pretend that other events did take place. They would help spin what they cannot deny. Ensure they've used every trick of the book, to pull the eyes of the world, and in an attempt to cover up their mistakes.
68. The Right Honorable Sir Winston Leonard Spencer--Churchill, KG, OM, CH, FRS, PC (November 30, 1874 – January 24, 1965) was a British statesman, best known as prime minister of the United Kingdom during the Second World War. At various times a soldier, journalist, author, and politician, Churchill is generally regarded as one of the most important leaders in British and world history. Considered reactionary on some issues, such as granting



independence to Britain's colonies and at times regarded as a self-promoter who changed political parties to further his career, it was his wartime leadership that earned him iconic status. Some of his peacetime decisions, such as restoring the Gold Standard in 1924, were disastrous as was his World War I decision to land troops on the Dardanelles. However, during 1940, when Britain alone opposed Hitler's Nazi Germany in the free world, his stirring speeches inspired, motivated, and uplifted a whole people during their darkest hour. Churchill saw himself as a champion of democracy against tyranny, and was profoundly aware of his own role and destiny. Indeed, he believed that God had placed him on earth to carry out heroic deeds for the protection of Christian civilization and human progress. A providential understanding of history would concur with Churchill's self-understanding. Considered old--fashioned, even reactionary by some people today, he was actually a visionary whose dream was of a united world, beginning with a union of the English-- speaking peoples, then embracing all cultures. In his youth, he cut a dashing figure as a cavalry officer as seen in the 1972 film *Young Winston* (directed by Richard Attenborough), but the images of him that are the most widely remembered are as a rather overweight, determined, even pugnacious looking senior statesman as he is depicted to the right.

69. Theater study is a difficult subject in the academy because it cannot be experimental and it is a mixture of literature and personal life experience. Theatre should show pure lives, although there will be new actors or directors. It is also a collection of different skills, such as writing and singing. To succeed in this subject, you need the knowledge of linguistics, sociology, archeology, physics, psychology, and philosophy. Theater study is interdisciplinary, and you need to be a linguist and archaeologist to fully understand theater study. If we move everything away, there are some intellectual and distinctive things



left. What makes theater study distinctive is that it is an ongoing project that requires a study lifespan of 60 to 70 years.

70. For many, these have been vital considerations for the future of artificial intelligence. But British computer scientist Alan Turing decided to disregard all these questions. In favor of a much simpler one: can a computer talk like a human? This question led to an idea for measuring artificial intelligence that would famously come to be known as the Turing test. In the 1950 paper, *Computing Machinery and Intelligence*, Turing proposed the following game. A human judge has a text conversation with unseen players and evaluates their responses. To pass the test, a computer must be able to replace one of the players without substantially changing the results. In other words, a computer would be considered intelligent if its conversation couldn't be easily distinguished from a human's. Turing predicted that by the year 2000, machines with 100 megabytes of memory would be able to easily pass his test. But he may have jumped the gun.
71. One of the most amazing things that have happened even in my lifetime is the prediction of cosmology. When I started out forty-odd years ago, we thought we knew that the universe began a big bang, some people doubted even then. We thought the universe was about ten or twenty billion years old. But now for really very sound scientific reasons, we can say that the universe did start in a Big bang and it's 13.8 billion years old. So it's not 14, it's not 13 because a decimal point in there and that's a stunning achievement to know that. And we also know that the laws of physics that apply to tiny particles inside atoms also explains what happened in the big bang, you can't have one without the other. A very neat example of this is that when you apply nuclear physics, that kind of physics to understand how stars work, you find out that the oldest star in the universe is about 13 billion years old. So their



universe is just a little bit older than the stars. Fantastic, if we done it and counted in the other way around and said that the stars were older than the universe, we would say science was in deep trouble. But it's not, everything fits together and we know how the universe began, we got to know how the way it is. The future that it 'll suspects we don't know quite well what's going, but we got some ideas, which are as good as those ideas we had 40 years ago about how big bang happened.

72. When the 90's was coming around, more and more normal people could get online. Thanks to the UK, the invention of HTML allowed people to create a wide variety of extraordinary works. During the first decade, people created web pages, learning resources and other online contents without normal factors, such as fears, religious concerns, advertisement, profitability or traditional promotion schemes. It is because they thought it was a good idea. Today in our class, we will discuss hyper text markup language, popularly known as HTML. It is the computer language device to allow website creation. These websites can then be viewed by anyone else connected to the internet. It is relatively easy to learn with the basics being accessible to most people
73. I think there is an intense competition at the moment to hire the most talented and most intellectually able people. There is a time when I think companies have many of the adventures in the world. That involves the companies' world. It was the bosses' world. Now I think it reverses the case. We have a shortage in talent base within countries and between countries, have an intense battle between companies to hire the most talented workers and also between countries, which are looking to recruit talented young people, talented young immigrants. We have this sense of immigrants being things that countries are battled to keep out, and immigrants want to get in, climb of the walls. I think the opposite isn't that the case. And the topic is that countries are trying to



lure bright young people to get them to go to universities and get them to become immigrants. So, on many levels, talent is a premium. There is a shortage of talent, and so countries, companies, all sorts of organizations, of course, volunteer organizations as well as, are competing to hire the best and the brightest. You know we have a baby boom population which is aging. We have an economy which is becoming more sophisticated. And so, for all those sorts of reasons, talent is a premium.

74. The first inhabitants in Australia were the ancestors of the present indigenous people. Whether these first migrations involved one or several successive waves and distinct peoples is still subject to academic debate, as is its timing. The minimum widely accepted time frame places presence of humans in Australia at 40,000 to 43,000 years Before Present, while the upper range supported by others is 60,000 to 70,000 years BP. In any event, this migration was achieved during the closing stages of the Pleistocene epoch, when sea levels were typically much lower than they are today. Repeated episodes of extended glaciation resulted in decreases of sea levels by some 100150 m. The continental coastline therefore extended much further out into the Timor Sea than it does today, and Australia and New Guinea formed a single landmass (known as Sahul), connected by an extensive land bridge across the Arafura Sea, Gulf of Carpentaria and Torres Strait The ancestral Australian Aboriginal peoples were thus long established and continued to develop, diversify and settle through much of the continent. As the sea levels again rose at the terminus of the most recent glacial period some 10,000 years ago the Australian continent once more became a separated landmass. However, the newly formed 150 km wide Torres Strait with its chain of islands still provided the means for cultural contact and trade between New Guinea and the northern Cape York Peninsula. During the 1970s and 1980s around 120,000



southern Asian refugees migrated to Australia. During those twenty years, Australia first began to adopt a policy of what Minister of Immigration Al Grassby termed "multiculturalism". In 2004-05, Australia accepted 123,000 new settlers, a 40% increase over the past 10 years. The largest number of immigrants (40,000 in 2004/05) moved to Sydney. The majority of immigrants came from Asia, led by China and India.

75. OK. Another ancient Greek philosopher we need to discuss is Aristotle – Aristotle's ethical theory. What Aristotle's ethical theory is all about is this: he's trying to show you how to be happy – what true happiness is. Now, why is he interested in human happiness? It's not just because it's something that all people want to aim for. It's more than that. But to get there we need to first make a very important distinction. Let me introduce a couple of technical terms: extrinsic value and intrinsic value. To understand Aristotle's interest in happiness, you need to understand this distinction. Some things we aim for and value, not for themselves but for what they bring about in addition to themselves. If I value something as means to something else, then it has what we will call "extrinsic value", other things we desire and hold to be valuable for themselves alone. If we value something not as means to something else, but for its own sake, let us say that it has "intrinsic value", exercise. There may be some people who value exercise for itself, but I don't. I value exercise because if I exercise, I tend to stay healthier than I would if I didn't. So I desire to engage in exercise and I value exercise extrinsically ... not for its own sake, but as a means to something beyond it. It brings me good health.
76. With an abundance of low-priced labor relative to the United States, it is no surprise that China, India and other developing countries specialize in the production of labor-intensive products. For similar reasons, the United States will specialize in the production of goods that are human and physical-capital



intensive because of the relative abundance of a highly-educated labor force and technically sophisticated equipment in the United States. This division of global production should yield higher global output of both types of goods than would be the case if each country attempted to produce both of these goods itself. For example, the United States would produce more expensive labor-intensive goods because of its more expensive labor and the developing countries would produce more expensive human and physical capital-intensive goods because of their relative scarcity of these inputs. This logic implies that the United States is unlikely to be a significant global competitor in the production of green technologies that are not relatively intensive in human and physical capital. Nevertheless, during the early stages of the development of a new technology, the United States has a comparative advantage in the production of the products enabled by this innovation. However, once these technologies become well-understood and production processes are designed that can make use of less-skilled labor, production will migrate to countries with less expensive labor

77. There's sugar in a lot of foods where you don't expect it. Of course there's lots of sugar in donuts or ice cream, or pastries, or other things that are sweet, candy of course, but there are other places where you see it and you don't necessarily expect it. As an example: peanut butter. Here's a list of ingredients from Skippy Peanut Butter and you see that sugar is the second most common ingredient. You may know from reading food labels that these ingredients in any food label are listed in order of how much there is in the food itself, so sugar comes right after peanuts. Here's another example, Beef Stew, you wouldn't necessarily expect to find sugar in beef stew but it's there. Now it's down the list of ingredients, it's actually toward the end, but if you



look at the marketing of this and look at the can it says, there's fresh potatoes and carrots, but actually there's more sugar in this than there is carrot.

78. Last month I published alongside my annual report a subject report on the development of citizenship in schools. The report celebrates the success of some schools in implementing the citizenship curriculum. It praises those schools where there have been substantial developments in the subject, and which now go a long way towards fulfilling national curriculum requirements. In the report we are critical of schools which have not taken citizenship seriously, either through reluctance or lack of capacity to make appropriate provision in the curriculum. Citizenship is marginalised in the curriculum in one fifth of schools. It is less well established in the curriculum than other subjects, and less well taught and some critics have seized on this as a reason for wanting to step back from supporting it. Yet, the progress made to date by the more committed schools suggests that the reasons for introducing citizenship are both worthwhile and can be fulfilled, given the time and resources. Indeed, those reasons are given added weight by national and global events of the past few months. While not claiming too much, citizenship can address core skills, attitudes and values that young people need to consider as they come to terms with a changing world.

79. Tissue engineering, what is it? It's an emerging field, interdisciplinary field that combines engineering and life sciences to create functional biological structures that can restore and improve tissue function. Examples include bladders, trachea blood vessels and if you look at it, printing as a technology has also gone through the revolution and well it's been around for hundreds of years. In the last couple of decades, it's been a new dimension. We can now print layer by layer in materials ranging from plastic to metal, to concrete, to chocolate, from the smallest scales to the largest. If you take 3D printing and



we combine it with biology, we have bio-printing where the building blocks our cell aggregates where we called bio-ling particles that are composed of thousands of cells that can fuse together into different shapes, these geometries can include multi-layered sheets, such as skin, branching tubes for vasculature and the sophistication of this manufacturing technology improves daily to include different cell types and different shapes. And now why is it important, the pharmaceutical industry at the moment is in a moment of crisis. It spends more money each year on R&D, but has fewer drugs to show for it. It takes more than a decade, more than a billion of dollars to develop a new drug and the cost of a failure can be measured in hundreds of millions of dollars.

80. Absolutism is referred to as the claim that there is a universally valid moral system. Such a system applies to everyone, whether they realize it or not. Also, it contains rules, guidelines, and principles, which are all universal. It acts as a road map guiding individual and social behaviors. Some principles of absolutism cannot be violated or betrayed, and they have wide acceptance with no assumptions or exceptions. There is a boundary line that tells what is right and what is wrong. The idea of absolutism is that nothing is dependent on situations.
81. Australia is a vibrant, multicultural country. It is home to the world's oldest continuous cultures, as well as Australians who identify with more than 270 ancestries. It mentions that Australia has the oldest culture of residents and a quarter of the people in Australia were born overseas. Migrants make an enormous contribution to Australia's economy and provide an estimated fiscal benefit of over 10 billion dollars in their first ten years of settlement. Despite legal protection, too many people in Australia continue to experience prejudice and unfair treatment because of how they look or where they come



from. Most new migrants say they feel a strong sense of belonging to Australia and that this feeling deepens over time. This rich, cultural diversity is one of the Australian greatest strengths, although it has a negative effect, which we do not emphasize in detail.

82. Well, I think the drugs we use are not taken seriously into account. Parents leave their drugs all over the place at home but their children may accidentally take these drugs before they know it. And soon many children fall victim to accidents. Now, this must be avoided at all cost. One way of preventing accidents is to put drugs in closed boxes. Also, parents can firmly close the lid really well. I am sure kids would not be able to reach it. Another problem we find in mismanagement of drugs is how these medicines can be allergic to many people. We have to remember different drugs have different resistance and duration. That is extremely dangerous if someone takes a wrong drug. So what are the ways we can stop this from happening? Well, I suggest we introduce the course, which will primarily improve the misuse of drugs and greatly improve our lives.
83. The travels of Sir John Mandeville first saw the light of day in the mid-13th century and states in the introduction that it's intended as a guidebook for pilgrims venturing to the Holy Land. Unfortunately, most of the guidebook information is wildly out-of-date. The travels of John Mandeville, despite posing as a guidebook, is actually just a sort of combination of many eleventh and twelfth century sources. Mandeville ripped pieces from one source bits from another and put them together in a big melting pot and one continuous narrative. A storyteller at heart, Mandeville quickly leaves the guidebook behind and starts spinning tales. Now based on events described within the travels of John Mandeville we can say fairly definitively that it was written after 1360 which would seem to jive with the 1366 date that Mandeville



gifts for when he finished his narrative. Now while there is no original manuscript known to survive we do have a very early copy from 1371. It was written in French although it's heavily peppered with Anglicanism, suggesting that the book was written in English initially and later translated to French. The 15th century copy of the work says it was originally written in Latin, translated into French and then translated into English that it might reach men of all parts of the world but this seems to be a much later edition. The work was quickly translated into all the dialects and languages of Europe, French, Spanish, Dutch, German, Bohemia and even Gaelic. We have three early English manuscripts although they're all post 14 hundred but to give something of an indication of how popular Mandeville's work was. We do have over 300 surviving manuscripts versions of the travels of John Mandeville, as opposed to only 77 of Marco Polo. Now all of this is in an aged Pre Guttenberg so that should give you some sort of indication of just exactly how much these works spread.

84. I'm fascinated by the extent to which sharing economy platforms like Uber and Airbnb are getting Americans to trust each other again. Over the last 40 years, the level of trust in society has fallen quite dramatically. Less than 1 in 5 Americans under the age of 35 today feel that people are trustworthy in general. But in parallel, we've developed a heightened level of trust in strangers who we meet through a digital interface. There's a generation that has grown up reading Yelp reviews, reading Amazon reviews, making their consumption choices based on what strangers on a digital platform say. And so someone who we interact with who comes accompanied by online reviews, a Facebook and LinkedIn profile, and other digital cues seems to be someone we'll trust at the level of friends and family. What excites me about this transition is that through history every time society has created a new basis



for trust, it has expanded the economy dramatically. So, I'm looking forward to seeing, as we trust our Uber drivers more, how this expands the world's economic activities and the possibilities for trade.

85. When you are facing a complex problem or trying to do something bold, start with a smaller version of the larger problem. You might have to break it into several manageable minor problems to solve one at a time, and then put them together. Focus exclusively on that small problem and solve it. Use the answers to this small issue to expand your knowledge of the larger issue. Repeat. If you take a look around, you can see this pattern playing out everywhere. Some examples are given. When you watch the world, you have to look at the relations within the world. When you understand the world, a few things are in relation to each other. When you study different disciplines, they are related to one another. For example, if we study a family, culture, religion and politics need to be concerned. Without relation, we can't understand population changes. You should fit these disciplines into a larger picture.
86. The glass ceiling is an idea familiar to many. It refers to the invisible barrier that seems to exist in many fields and which prevents women from achieving senior positions. Less well-known, but arguably a more pernicious problem, is the 'glass cliff'. Originally recognized by academics Michelle Ryan and Alex Haslam back in 2005, this is the phenomenon of women making it to the boardroom but finding themselves disproportionately represented in untenable leadership positions. Ryan and Haslam presented evidence that women were indeed starting to secure seats at boardroom tables. But the problem was that their positions were inherently unstable. These women would then find themselves in an unsustainable leadership position from which they would be ousted with evidence of apparent failure. The title of their



paper sums it up: women are over-represented in precarious leadership positions. Subsequent research in an array of environments has demonstrated that this is not an isolated issue, nor is it unique to certain industries or geographical locations. It reveals that women in top leadership positions seem to be routinely handed inherently unsolvable problems.

87. Women systematically underestimate their own abilities. If you test men and women and you ask them questions on totally objective criteria, like GPAs, men get it wrong slightly high, and women get it wrong slightly low. Women do not negotiate for themselves in the workforce. A study in the last two years of people entering the workforce out of college showed that 57% of boys entering or men, I guess, are negotiating for salary, and only 7% of women. And most importantly, men attribute their success to themselves and women attribute it to other external factors. If you ask men why they did a good job, they'll say, I'm awesome. If you ask, obviously. Why are you even asking? If you ask women why they did a good job? What they'll say is someone helped them they got lucky, they worked really hard. Why does this matter? Boy, it matters a lot. Because no one gets to the corner office by sitting on the side, not at the table, and no one gets the promotion if they don't think they deserve their success, or they don't even understand their own success.
88. Theater study is a difficult subject in the academy because it cannot be experimental and it is a mixture of literature and personal life experience. Theatre should show pure lives, although there will be new actors or directors. It is also a collection of different skills, such as writing and singing. To succeed in this subject, you need the knowledge of linguistics, sociology, archeology, physics, psychology, and philosophy. Theater study is interdisciplinary, and you need to be a linguist and archaeologist to fully understand theater study. If we move everything away, there are some intellectual and distinctive things



left. What makes theater study distinctive is that it is an ongoing project that requires a study lifespan of 60 to 70 years.

89. We appear to take it as a rule, or as a law of nature, that each species is adapted to the climate of its own home. For example, species from the Arctic, or even a temperate region, could not survive in a tropical climate, nor could a tropical species last long if it found itself at the South Pole. But it is true to say there's too much emphasis placed on the degree of adaptation of species to the climates where they live. We assume that this adaptation – if all species are descended from a single form – must have taken place over millions of years, yet a large number of plants and animals brought from different countries remain perfectly healthy in their new home. Also, there are several examples of animal species that have extended their range, within historical times, from warmer to cooler latitudes and the other way round. Rats and mice provide good examples: they have been transported by man to many parts of the world and now have a far wider range than any other rodent, and they can be found living in the cold climate of the Faroe Islands to the north through the tropical zones to the Falklands in the south. It is possible to see adaptation to any climate as a quality that is part of an inborn flexibility of the physical and mental constitution of most animals. Therefore, the ability to survive in the most different climates by both man and his domestic animals, and the fact that elephants once existed in an ice age while living species live in tropical areas, should not be seen as deviations from the rule, but as examples of this flexibility being brought into action under particular circumstances.
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91. The way I started really, I was doing this type of work in United States where there are a number of lawyers doing it and it had not been done in the UK with the rest of Europe before. I think the reason I started in the United States was that there was a civil rights movement. And in the civil rights movement, lawyers became deeply involved right away because if you're black civil rights you're arrested. So the environmental movement coming along just behind the civil rights movement in time and said ah, we need lawyers and environment movement as well. As a result, one of the main contributors to the environment



now is how has been its lawyers. Here there were no need for civil rights movement, so environmental groups became expert campaigners, but law really wasn't part of the deal and never has happened, they never use law strategically, they would say they have. I came here and one of our interviewed people and environmental groups in UK, in Brussels and so on and was very surprised of the positive views of law and that's where client came from, so bringing their kind of intellectual DNA and work I've done in the United States into these very difficult cultures.

92. These desert ants are on a mission: find food and bring it home, no matter the size and shape. But new research suggests ants walking backward are as good at navigating to their destination as forward walking ants. This means they must somehow measure the length of each stride they take or use other tools to keep track of their location. The researchers say when ants find something too large to be lifted and carried forward they drag it backwards. So the researchers put the ants reversing navigation skills to the test. They painted a white grid onto the desert floor and released an ant with a large food crumb and it began its backward trek towards its home. During normal forward homing the ant goes straight to its fictive home indicated with the red dot. During backward homing ants frequently interrupted reading and performed foodless search loops probably to gain further orientation cues. The research published in the journal of experimental biology use high speed camera recordings. It found that backward traveling ants showed surprising flexibility with intellect coordination, in comparison with the forward walking ones.
93. This is the first ocean deployment of two new high-precision instruments designed to monitor the Earth's signals from the seafloor. This housing contains the tilt meter and nano bottom pressure recorder and the



associated electronics and cabling used for power and communications. The instruments were deployed on the sea floor by a remotely operated vehicle as part of the Mars seafloor. Observatory test bed located at a depth of three thousand feet in Monterey Bay in this first test deployment in the ocean. it has already detected the ground motion from several large earthquakes as far from the Mars site as Chile and the Mariana Trench in the future. The instruments will be part of a global network of cabled seafloor observatories. Because of their precision these two new instruments are already detecting signals, which could never be measured before.

94. Canada is a country of the enormous natural resources. It is the world's largest exporter of forest products and a top exporter of fish, furs, and wheat. Minerals have played a key role in Canada's transformation into an urban-industrial economy. Alberta, British Columbia, Quebec, and Saskatchewan are the principal mining regions. Ontario and the Northwest (NWT) and Yukon Territories are also significant producer of uranium and potash, the third-largest of asbestos, gypsum, and nickel, and the fourth-largest of zinc. Oil and gas are exploited in Alberta, off the Atlantic coast, and in the northwest – huge additional reserves are thought to exist in the high Arctic; oil price is making extraction profitable at a growing number of the country's deposit. Canada is also one of the world's top hydroelectricity producers.
95. One of the things I love about working on ice is it's actually just visually very beautiful. The Antarctic is a beautiful and exceptional place to work. Much of what I do is to try to understand changes in climate over the last hundreds to thousands to even hundreds of thousands of years. An ice core is a continuous section of ice drilled into a glacier or an ice sheet. We're sending this instrument down which is just a cutting tool and the thing goes down a meter at a time. You bring it up and now you have these long tubes of ice.



Drilling an ice core is kind of like a time machine. You can go back and find out what was the atmosphere like 50,000 years ago. It's snow that has fallen and then it's compressed trapping the atmosphere. You can count the layers in ice cores like you can count tree rings and that means that you can actually determine when certain events in climate happened within a few years.

96. There comes a time in a desert ant's life when a piece of food is too large to ignore, but too heavy to lift, and the only way to get it home is to adopt a new style of walking. The long-legged and speedy *Cataglyphis fortis* normally covers ground with a three-legged stride that moves two legs forwards on one side, and one on the other. For the next step, the insect mirrors the move with its other three legs. But recordings of ants in the Tunisian desert reveal that when faced with oversized lumps of food 10 times their own weight, the forward "tripod" walking style is abandoned. Unable to lift the morsels in their mandibles, the ants drag the food backwards instead, moving all six legs independently. "This is the first time we have seen this in any ants," said lead author Sarah Pfeffer at the University of Ulm in Germany. The ants' long legs already help keep their bodies away from the scorching desert floor and enable them to speed around at up to 60cm per second. "Think of Usain Bolt, who has very long legs compared to body size. The desert floor is also very hot, so the further away their bodies are from the surface, the better," said co-author Matthias Wittlinger. The ants have also evolved to function at body temperatures of 50C in a desert where temperatures can soar to 70C. "They're basically just trying to get out of the heat," he added.
97. Frogs are a diverse and largely carnivorous group of short-bodied, tailless amphibians composing the order Anura. The oldest fossil proto frog appeared in the early Triassic of Madagascar, but molecular clock dating suggests their origins may extend further back to the Permian, 265 million years ago. Frogs



are widely distributed, ranging from the tropics to subarctic regions, but the greatest concentration of species diversity is found in tropical rain forests. There are approximately 4,800 recorded species, accounting for over 85% of extant amphibian species. They are also one of the five most diverse vertebrate orders. Besides living in fresh water and on dry land, the adults of some species are adapted for living underground or in trees. Adult frogs generally have a carnivorous diet consisting of small invertebrates, but omnivorous species exist and a few feeds on fruit. Frogs are extremely efficient at converting what they eat into body mass. They are an important food source for predators and part of the food web dynamics of many of the world's ecosystems. The skin is semipermeable, making them susceptible to dehydration, so they either live in moist places or have special adaptations to deal with dry habitats. Frogs produce a wide range of vocalizations, particularly in they are breeding season, and exhibit many different kinds of complex behaviors to attract mates, to fend off predators and to generally survive. Frog populations have declined significantly since the 1950s. More than one-third of species are considered to be threatened with extinction and over one hundred and twenty are believed to have become extinct since the 1980s. The number of malformations among frogs is on the rise and an emerging fungal disease, chytridiomycosis, has spread around the world. Conservation biologists are working to understand the causes of these problems and to resolve them. Frogs are valued as food by humans and also have many cultural roles in literature, symbolism and religion.

98. Human populations near the equator have evolved dark skin over many generations because of exposure to the fierce rays of the Sun. A similar phenomenon has also occurred in other parts of the animal kingdom. The African grass mouse is a good example. Most mice are nocturnal, but the



African grass mouse is active during daylight hours. This means that it spends its days searching for food in the semidry bush and scrub habitats of eastern and southern Africa. Its fur is striped, like a chipmunk's, which helps it blend in with its environment. Because it spends a lot of time in the intense tropical sun, the grass mouse has also evolved two separate safeguards against the Sun's ultraviolet radiation. First, like the populations of humans in this region of the world, the skin of the grass mouse contains lots of melanin, or dark pigment. Second, and quite unusual, this mouse has a layer of melanin pigmented tissue between its skull and skin. This unique "cap" provides an extra measure of protection for the grass mouse and three other types of African mouse-like rodents that are active during the day. The only other species scientists have identified with the same sort of skull adaptation is the white tent-making bat of the Central American tropics. Although these bats sleep during the day, they do so curled up with their heads exposed to the sun.

99. OK. Another ancient Greek philosopher we need to discuss is Aristotle – Aristotle's ethical theory. What Aristotle's ethical theory is all about is this: he's trying to show you how to be happy – what true happiness is. Now, why is he interested in human happiness? It's not just because it's something that all people want to aim for. It's more than that. But to get there we need to first make a very important distinction. Let me introduce a couple of technical terms: extrinsic value and intrinsic value. To understand Aristotle's interest in happiness, you need to understand this distinction. Some things we aim for and value, not for themselves but for what they bring about in addition to themselves. If I value something as means to something else, then it has what we will call "extrinsic value", other things we desire and hold to be valuable for themselves alone. If we value something not as means to something else, but



for its own sake, let us say that it has "intrinsic value", exercise. There may be some people who value exercise for itself, but I don't. I value exercise because if I exercise, I tend to stay healthier than I would if I didn't. So, I desire to engage in exercise and I value exercise extrinsically ... not for its own sake, but as a means to something beyond it. It brings me good health.

100. Today, I would like to focus on some of the important features of academic writing. The quality is the first most aspect of any writing. When you write about history, you need half the same quality as journal writing. They are both similar. When you are writing academic and journal papers, you might consider some of these factors. Both require resources and evidence as well as writing style. Furthermore, the attention of logic in writing is also important. One thing that puzzles me is that there is no clear connection between history and journal writing, but somehow, they are so much alike.

101. We appear to take it as a rule, or as a law of nature, that each species is adapted to the climate of its own home. For example, species from the Arctic, or even a temperate region, could not survive in a tropical climate, nor could a tropical species last long if it found itself at the South Pole. But it is true to say there's too much emphasis placed on the degree of adaptation of species to the climates where they live. We assume that this adaptation – if all species are descended from a single form – must have taken place over millions of years, yet a large number of plants and animals brought from different countries remain perfectly healthy in their new home. Also, there are several examples of animal species that have extended their range, within historical times, from warmer to cooler latitudes and the other way round. Rats and mice provide good examples: they have been transported by man to many parts of the world and now have a far wider range than any other rodent, and they can be found living in the cold climate of the Faroe Islands to the north



through the tropical zones to the Falklands in the south. It is possible to see adaptation to any climate as a quality that is part of an inborn flexibility of the physical and mental constitution of most animals. Therefore, the ability to survive in the most different climates by both man and his domestic animals, and the fact that elephants once existed in an ice age while living species live in tropical areas, should not be seen as deviations from the rule, but as examples of this flexibility being brought into action under particular

102. Machiavelli lived from 1469 to 1527. The philosopher Bertrand Russell referred to Machiavelli's most well-known book, *The Prince*, as "a gangster's handbook". And while there's no doubt that certain people have read and used it as such, I think that if we put it into the context of when it was written, which was Italy, especially Florence, in the 15th and 16th centuries, it will be easier to judge Machiavelli's reasons for writing it. Now, the Italy of that period was made up of a number of city states, often at war with each other. Add to that threats from foreign powers, especially France, and it was a very unstable and dangerous situation. Machiavelli loved his home city, Florence, and wanted to protect its culture, history and above all independence at all costs. One way to do this was to establish an army of Florentines loyal to the city state of Florence. Much of Machiavelli's career was taken up with this issue. It must be remembered, though, that he led an active civic life, was deeply into politics, and was an ambassador for Florence. In this way, he got to meet and observe some of the key players of the time and through this came to understand the nature of power and how to hold on to it. *The prince* was an attempt to teach Florence the lessons he had learnt.

103. Today I would like to talk about a book in this class. This book focuses on architecture design in London. Not just any place in London. It is in the West side of London called West Street of London. The architecture made a very



poor design of the buildings there. This can cause a mood swing. An awful design of the building can have a negative influence on people's mood. If you want some beautiful designs, then you must visit Stanford and Frankfurt. They are good examples of the best architectural designs. Different architects have different perspectives on beauty, which is an arrogant word since is in the eye of the beholder. One can write the ... out in the play, but how one can design bad and ugly buildings. Well, it is difficult for architects to realize a bad architectural design.

104. The preservation of embryos and juveniles is a rare occurrence in the fossil record. The tiny, delicate skeletons are usually scattered by scavengers or destroyed by weathering before they can be fossilized. Ichthyosaurs had a higher chance of being preserved than did terrestrial creatures because, as marine animals, they tended to live in environments less subject to erosion. Still, their fossilization required a suite of factors: a slow rate of decay of soft tissues, little scavenging by other animals, a lack of swift currents and waves to jumble and carry away small bones, and fairly rapid burial. Given these factors, some areas have become a treasury of well-preserved ichthyosaur fossils. The deposits at Holzmaden, Germany, present an interesting case for analysis. The ichthyosaur remains are found in black, bituminous marine shales deposited about 190 million years ago. Over the years, thousands of specimens of marine reptiles, fish and invertebrates have been recovered from these rocks. The quality of preservation is outstanding, but what is even more impressive is the number of ichthyosaur fossils containing preserved embryos. Ichthyosaurs with embryos have been reported from 6 different levels of the shale in a small area around Holzmaden, suggesting that a specific site was used by large numbers of ichthyosaurs repeatedly over time. The embryos are quite advanced in their physical development; their paddles,



for example, are already well formed. One specimen is even preserved in the birth canal. In addition, the shale contains the remains of many newborns that are between 20 and 30 inches long. Why are there so many pregnant females and young at Holzmaden when they are so rare elsewhere? The quality of preservation is almost unmatched and quarry operations have been carried out carefully with an awareness of the value of the fossils. But these factors do not account for the interesting question of how there came to be such a concentration of pregnant ichthyosaurs in a particular place very close to their time of giving birth.

105. The first inhabitants in Australia were the ancestors of the present indigenous people. Whether these first migrations involved one or several successive waves and distinct peoples is still subject to academic debate, as is its timing. The minimum widely accepted time frame places presence of humans in Australia at 40,000 to 43,000 years Before Present, while the upper range supported by others is 60,000 to 70,000 years BP. In any event, this migration was achieved during the closing stages of the Pleistocene epoch, when sea levels were typically much lower than they are today. Repeated episodes of extended glaciation resulted in decreases of sea levels by some 100150 m. The continental coastline therefore extended much further out into the Timor Sea than it does today, and Australia and New Guinea formed a single landmass (known as Sahul), connected by an extensive land bridge across the Arafura Sea, Gulf of Carpentaria and Torres Strait the Ancestral Australian Aboriginal peoples were thus long established and continued to develop, diversify and settle through much of the continent. As the sea levels again rose at the terminus of the most recent glacial period some 10,000 years ago the Australian continent once more became a separated landmass. However, the newly formed 150 km wide Torres Strait with its chain of islands still



provided the means for cultural contact and trade between New Guinea and the northern Cape York Peninsula. During the 1970s and 1980s around 120,000 southern Asian refugees migrated to Australia. During those twenty years, Australia first began to adopt a policy of what Minister of Immigration Al Grass by termed "multiculturalism". In 2004-05, Australia accepted 123,000 new settlers, a 40% increase over the past 10 years. The largest number of immigrants (40,000 in 200405) moved to Sydney. The majority of immigrants came from Asia, led by China and India.

106. So, happiness economics can help us get to these questions, and I'll try to give you some examples of this. Now, even though there's a lot of skepticism, originally about using this survey – surveys what people say make them happy. The number of reason that we are getting increasingly confident in doing so. One is that their consistent pattern – remarkable consistent pattern, determines well-being across large samples of people, across countries, across the world, and over time. Some of the basic things that make people happy, and I will show you some of these income health, marital status, employment status. Some of these very basic things are remarkably consistent across countries across world. So that gives us some sense that these surveys are picking up consistent patterns. And when we know what consistent patterns are, we can look how other things that very much more, affect people's well-being. The environment and equality, the nature's institution raging on living, and all kinds of other things that very much more.
107. English, as you have already read, is not a pure language. I don't think there really are any pure languages in the world. But English is definitely not a pure language. English, in fact, has borrowed from over 350 languages in its history. So, it's a variety of many languages. Some people say it's like a dog, a mongrel dog, a dog that has been made up of many different dogs. The



English language is like that. By looking at the history of the English language we learn about the history of the English people. The two things are closely connected. So, in fact, today we are not only learning about language but we are learning about history. The fact that English has borrowed words from over 350 languages has been viewed differently throughout history. So, for example in Shakespeare's time people were very angry about words which were not, they thought, original English words – words which came from other languages, they didn't like them.

108. Well, it's like, why is Australian housing is so expensive? Essentially, it's showing of how well the Australian economy has been doing over the last 15 years. We have had 15 years more or less of an uninterrupted economic growth during which average earning has been raised by close to 90 percent. While over the course of that period, the standard variable mortgage rate has roughly halved. That meant that the amount which a typical home buying household can afford to borrow under rules which aren't strictly applied as they used to be had more than doubled. Over the same period, rising immigration in falling average household size has meant that the number of households looking for accommodation has risen by about one and a half million. That's around 200 thousand more than the number of dwellings has increased by. So, you have had a substantial increase in the purchasing power of households. No net increase in the supply of housing enhances all that addition purchasing power has gone into pushing up the price of housing.

109. "But what are the dangers of keeping these drugs at home?" "There are a number of dangers. Parents should know that leftover drugs are dangerous because they may be accidentally ingested by children. Either adults don't keep the bottles properly closed and stored or because even many kids can sometimes open childproof lids. Patients may use the drugs after their



expiration date. The leftover drugs may be taken for the wrong reasons. For example, someone may have a viral infection and self-prescribed to left over into microbial that was prescribed for a bacterial infection. But that drug will have no effect as the viral infections. Drugs that are left over might be given to or taken by someone else who may have a serious allergy to the medicine and who for that reason would not be prescribed to medicine under the supervision of a physician. Finally, inappropriate use of drugs promotes drug resistance if the drug is taken for the wrong indication, the wrong duration, or in the wrong dosage. "Todd, what can people do about this how can the situation be improved?" "I think physicians, patients and parents of patients can take steps to improve the situation. First of all, physicians should prescribe the drug only when appropriate, only in the correct amount and only for the correct duration. Also, the physician must stress to the patient that the full course of the drug must be taken. This is recommended even if symptoms resolved before the end of the prescription and parents of children on antibiotics need to ensure they complete their course as well."

110. So various conclusions. Yes, bees are in decline. These declines are well-documented. They are real and supported by good, strong scientific evidence, which is the only of these counts. The drivers of decline on many varied depending on species. The effects of pollinator loss could be absolutely huge. So, is it a catastrophe? Not yet. But it could be. On the positive side, we are aware of the problem. Awareness is being raised all the time and people are taking actions. Before fixing is missing, you can recognize the problem. At least it's been done.
111. Today, we'll discuss about abstraction, commonly known as description. There are two methods of description. These are symbolic language and body language. The abstraction is an important part for developing a computer.



This is originated from the symbolic system in the computer system. The origin of symbolic system was developed when people try to communicate with each other. The symbolic language took communication to wider people and popularity group. The other part of abstraction is the body language. People accepted body language as well. The physical movement facilitates the development of sign language, which popularly became hand words.

112. In my view, it's impossible not to talk about wildlife, and not think about its role in livelihood. And I guess part of that is my own view, part of the research that I do in Africa. In most Eastern West Africa, I look at the role. All the humans rely on wildlife as the source of food, and also the source of income. And we talk about our wildlife, if we talking about fish, we are talking about what is probably the single most important source of protein for human that across the globe. And, so, billions of, or more than a billion of people rely on fish as their primary source of animal protein, and most of these people living in poverty. So, the management of fish resource of wildlife in that sense causing incredibly important to livelihoods and health. And also, wildlife tourism is the multiple billion dollars' industry, and in many places, such as Africa, South America, it can be the No.1 source of income. It can be the No.1 source of foreign income for economies.



FILL IN THE BLANKS

1. There are some common reasons to explain why early civilizations developed in different places and different [times](#) around the world. Each ancient civilization that has been discovered developed in places where there was a [reliable](#) water supply (usually on the banks of major rivers), and where the soil was [fertile](#) enough to grow crops.
2. We can gain an accurate [knowledge](#) of the past only if we know the age of the different sources being [investigated](#). Without this information, historians and archaeologists could not be sure of the order in which different areas were settled, used and [abandoned](#). They would not always be sure if a particular object was real or [forgery](#).
3. Historians can represent events that have happened in past [centuries](#) on a timeline, showing the four major [periods](#) of human history. A timeline is a good way to help us get history into [perspective](#). It shows events from the past in a clear [chronological](#) order – that is, from the earliest to the latest event.
4. Archaeologists look for clues that indicate that an area is worth [digging](#) up. Clues may come from the [writings](#) of someone in the past who has described the [existence](#) of a particular town or burial site. Sometimes sites are accidentally discovered during [excavation](#) for the construction of buildings, roads, dams or railways.
5. Mobile applications are using third-party data collection and advertising [tools](#) in order to [monetize](#) those applications. It happens across all [types](#) of apps, including ones that users may find fairly [sensitive](#), like health and fitness, and [wellness](#) applications.



6. Ebola virus, the [bacteria](#) that causes plague, a [pandemic](#) strain of flu – if any of these pathogens could be turned into bioweapons by terrorists or rogue nation states, they would threaten humanity. Most life scientists have little awareness of [biosecurity](#) issues, according to a National Academies report released today. And it says there are “multiple shortcomings” in the systems [designed](#) to stop potentially risky research from being published.
7. A new process for 3D-printing things could pave the way for lighter, faster aircraft that [potentially](#) fly further on the same amount of fuel. Today's airplanes are held together with thousands of metal rivets and fasteners. That's because the lightweight but strong [aluminum](#) alloys used for their frames are considered unwieldable. Try to weld them and you get a phenomenon called hot-cracking, in which the finished alloy weakens and [fractures](#) as it cools. This and other adverse welding effects also stand in the way of 3D-printing high-strength aluminum alloy parts. When researchers have tried, the resulting laser-fused mass [flakes](#) away at the welding area like a stale biscuit.
8. Popular ride-sharing firm Uber has had its license to operate in London [revoked](#) in a surprise move by the city's regulator. There were multiple reasons for the decision. TfL cited the company's approach to reporting criminal offences. In August, a senior officer within London's Metropolitan Police Service wrote to TfL about Uber's slowness to report a passenger's [accusation](#) that her driver had sexually [assaulted](#) her. TfL said it was also concerned about how Uber obtained medical certificates and criminal records checks for drivers. The straw that broke the camel's back may have been the company's “Greyball” software – an internal application that Uber may have used to block regulators' [oversight](#) of the Uber app.



9. All earthquakes look the same when they start, making it unlikely we will be able to predict which will cause the most [devastation](#) from early [observations](#). Early warning systems rely on seismometers picking up [tremors](#) and sounding the alarm for nearby cities before major shaking starts. Even a few seconds' warning can make a lot of difference, both for individual people and for organizations like hospitals. For example, Mexico's early warning system gave everyone a 10 to 15 second heads-up before Tuesday's [magnitude](#) 7.1 earthquake.
10. Asteroid collisions can be – just ask the dinosaurs – but they also bring key [ingredients](#) for life. Super-Earths can draw them to nearby worlds. Super-Earths – planets that are up to 10 times more massive than Earth – might play [billiards](#) with planetary systems. New simulations suggest that if a super-Earth existed in our own solar system, say between Venus and the Earth, far more asteroids would [collide](#) with us. But that isn't necessarily a bad thing, if the timing is right. Understanding the effect of these massive planets on others nearby could help direct the search for life on exoplanets.
11. If you have paraskevidekatriaphobia, today is not your day. That's right, paraskevidekatriaphobia is fear of Friday the 13th and the accidents, mishaps and misfortunes thought by some to occur on that day. But is there anything really to fear? In fact, a study was [conducted](#) and published back in 1993 in the British Medical Journal that looked at hospital admissions due to accidents on one Friday the 13th [compared](#) with the previous Friday the 6th. The researchers tracked traffic on a highway in one area and found that many fewer cars were on the road on the 13th. Perhaps due to people being leery of driving on that day. But hospital [admissions](#) in that area due to traffic accidents was actually higher. Forty-five people were admitted on the 6th but 65 people were admitted on the 13th. The researchers [concluded](#) that a few



people were indeed unlucky. On that Friday the 13th. In that part of England. Then again, what you really needed for this study was a [control](#) group that stays home, only to slip in the bathtub.

12. It's tough to pick a [familiar](#) face out of a crowd – but focusing on a known voice in a noisy room is easy. And a new study scanned volunteers' brains to look at how we solve the so-called cocktail party problem. The work is in the [journal](#) Nature. Researchers recorded the activity of the subject's cerebral cortexes while playing them sentences spoken by different voices. First, the subjects listened to individual sentences and reported key [features](#) of each one. Then, they heard two different sentences played at the same time, but had to listen to and recall details from only one voice. Each voice drew a particular response from the auditory cortex. And even with an extra sentence playing [simultaneously](#) researchers saw that the cortex responded specifically to the voice that the subject was focusing on. This finding indicates that our brains process sound based not only on the audio input they [receive](#)-, but also on our listening goals. And it could lead to speech recognition systems that are [accurate](#) in crowds – even at a cocktail party.
13. Tens of millions of sharks are killed for their fins each year. It's not just a tragic [abuse](#) of the animals. It's bad business. "They're basically swimming dollar signs, whether you're trying to kill them for their meat or their fins or you're interested in looking at them for ecotourism." That's Austin Gallagher, a doctoral student at the University of Miami. I spoke with him on February 26th. "We did some calculations and the results were remarkable. We determined that the average shark was worth about \$200,000 over the course of its life. And when you compare it to finning that animal – a one-time extractive use – seeing it for diving is worth about 40 percent more." Gallagher and his doctoral advisor Neil Hammerschlag [published](#) the study last year in Current



Issues in Tourism. "Since this paper came out, I got an e mail from somebody in Bali just a weeks ago saying, 'We're using your paper to stop illegal [harvest](#) of thresher sharks in Bali at a local dive community.'"

14. Obese people have higher risks for [diabetes](#) heart disease, arthritis – and injuries in car accidents? Yes, in part because they're far less likely to wear a seat belt. That's the finding of a study out of the University of Buffalo that will be presented at an upcoming meeting of the Society for Academic Emergency Medicine in Chicago. The researchers analyzed data in the national Fatality Analysis Reporting System of the National Highway Traffic Safety Administration. The study included a third of-a million drivers involved in [fatal](#) crashes. Two years ago, the research group found that morbidly obese people were 56 percent more likely to die in a car crash than normal weight car occupants. The new study [revealed](#) that drivers of normal weight are 67 percent more likely to wear a seat belt than are obese drivers – which could account for at least part of the increased death risk. The researchers hypothesize that [overweight](#) people find belts uncomfortable and difficult to buckle. A weight loss [program](#) can address the problem in the long run. An inexpensive seat belt extension can solve it today.
15. Does your puppy turn his nose up at his own chow- because he wants some of whatever it is that you're having? A new study finds that, when it comes to food, dogs recognize human [social](#) signals about what's good. The work is in the journal Public Library of Science ONE. Researchers let pet dogs choose between two plates, one with a single piece of food and the other with six pieces. [Unsurprisingly](#) the animals generally went for the larger portion. But when a human being showed a clear liking for the smaller plate, the canines likewise went for the skimpier choice. The dogs [apparently](#) recognized and responded to the humans 'social cues. And not all cues were equally effective.



When the human approached but did not touch the smaller portion, dogs [ignored](#) the attention drawing gesture. For a social signal to influence behavior, it had to demonstrate intention. And the most effective cues also involved [communication](#) such as looking from the food to the dog and back while talking encouragingly. For dogs, choosing a bite may depend on another's bark.

16. That brings us to the CEO's second duty: building [everyone](#) or more accurately, building the senior team. All the executives report to the CEO, so it's the CEO's job to [hire](#), fire, and manage the executive team. From [coaching](#) CEOs, I actually think this is the most important skill of all. Because when a CEO hires an excellent senior team, that team can keep the company running. When a CEO hire a poor senior team, the CEO is up [spending](#) all of their time trying to do with the team, and not nearly enough time trying to do with other elements of their job. The senior team can and often does [develop](#) the strategy for the company, but ultimately it's always the CEO who has the final 'go-no-go' decision on strategy.
17. Doctors know a lot about prescribing medications. "Take two brisk walks and call me in the morning." But for many patients, a light get-moving plan might be just what the doctor should have [ordered](#). Many of us aren't exactly in peak physical condition. But a large number of people are actually deconditioned. So says the Mayo Clinic's Michael Joyner in an essay in The Journal of Physiology. After surgery, illness, pregnancy or extended inactivity for any reason, people might feel faint or [fatigued](#) when they try even mild exercise. These signs, Joyner argues, should be [recognized](#) by doctors not as symptoms that should be treated with drugs, but rather as a medical state of deconditioning that might be better helped with a gentle, guided [exercise](#) program. It might sound counterintuitive that fatigue can be beat back with



exercise. But remember Newton–Isaac, not Fig. A body at rest stays at rest. And a body in motion needs to resist [external](#) forces acting upon it that might slow it down.

18. Life in the UK 2012 provides a unique overview of well-being in the UK today. The report is the first snapshot of life in the UK to be [delivered](#) by the Measuring National Well-being program and will be updated and published annually. Well-being is discussed in terms of the economy, people and the environment. Information such as the [unemployment](#) rate or number of crimes against the person are presented alongside data on people's thoughts and feelings, for example, [satisfaction](#) with our jobs or leisure time and fear of crime. Together, a richer picture on 'how society is doing' is provided.
19. You might picture Neanderthals as cavemen gnawing on bones around a campfire. Which wouldn't be [inaccurate](#). But Neanderthals may have also dined on roasted vegetables and known a bit about medicinal plants too. So says a study in the journal *Naturwissenschaften* (The Science of Nature). Researchers [analyzed](#) hardened dental plaque from five Neanderthals found in El Sidrón cave, in northern Spain. Yes, 50,000-year-old dental plaque. And they found a lot lurking between the teeth. Like evidence of nuts, grasses and green veggies, [chemical](#) traces of wood smoke, and tiny, intact starch granules, proof Neanderthals ate their carbs. And in one individual, they detected compounds found in the [medicinal](#) herbs chamomile and yarrow. The herbs have no nutritional value, and since Neanderthals did have the gene to detect the herbs' bitter taste, the researchers [speculate](#) that the cave dwellers were munching on them not as food—but to self-medicate. Not too far-fetched, they say, because primates like chimps also use medicinal plants. Luckily for the scientists doing this [detective](#) work, Neanderthals may



have known a thing or two about medicine, but they didn't get regular check-ups at the dentist.

20. Why do we need more entrepreneurs right now? The entrepreneurs who create and run our businesses, who play by the rules, are in fact critical to our [success](#) as a nation. We need them especially today. Business, not government, will end this recession. Government must help by creating fair rules, [sound](#) monetary policy, and by protecting our fellow citizens in periods when they are jobless. We have to make way for the new entrepreneurial firms that will push us to [frontiers](#) of innovation.
21. The ocean has been getting [bluer](#), according to a study published in the journal Nature. But that's not really good news for the [planet](#). It means that the plants that give the ocean its [green](#) tint aren't doing well. Scientists say that's because the ocean has been getting [warmer](#).
22. It's not easy being yellow: bananas now face two separate fungal epidemics, which threaten to pluck the fruit off of our tables. [Fortunately](#), researchers have now sequenced banana DNA, producing the genome of a banana variety that may hold the secret to defeating the diseases. The report is in the journal Nature. Today, half of all bananas, including the ones you probably buy, belong to the [Cavendish variety](#) whose popularity stems in part from having no seeds. But this trait also removes sexual [reproduction](#) from the equation. The bananas are thus all genetically identical – and identically [vulnerable](#) to the two fungal epidemics, Panama disease and black leaf streak disease. Researchers sequenced the genome of a banana variety called DH Pahang, whose genes [contributed](#) to the Cavendish. While the genome shows where this fruit fits in the history of plant evolution, it could also help researchers understand why DH-Pahang, unlike its [descendant](#) is resistant to the fungi behind both Panama and black leaf streak disease.



Knowing the genes responsible for this [resistance](#) could help breeders create stronger, more resistant bananas. Which has a lot of appeal.

23. Interesting sound. I would have guessed a Wild West performer was [practicing](#) with a bullwhip while also vacuuming. But no. That sound is apparently produced by the aurora borealis, the northern lights. Since 2000 researchers at Finland's Aalto University have been [collecting](#) audio, as part of what's called the Auroral Acoustics project. Folk tales have long held that the lights also produce odd sounds, but the claims were hard to prove. And some researchers thought that any noises produced by the [energetic](#) particles, that cause the light show would be far too high in the sky to be heard on the ground. But the latest results indicate that at least some sounds are produced very close to the ground. A setup of three ground-based [microphones](#) allowed researchers, to estimate that the sounds occur perhaps just 70 meters up. The results were just presented at the International Congress on Sound and Vibration in Vilnius, Lithuania. More information about the sounds of the northern lights could lead to a more complete understanding of the [phenomenon](#) So if you see an aurora, keep your ears open.
24. Just like corporations, stars, too, can engage in mergers and acquisitions: a new study has [identified](#) a pair of white dwarf stars heading toward a merger. White dwarfs are the hot, super dense remnants of spent stars. In a binary system called J0651, two white dwarfs circle each other very rapidly. The binary pairing [completes](#) an orbit in less than 13 minutes. And that already rapid orbital dance is speeding up as the two white dwarfs spiral in on each other. Each year their orbital period [shrinks](#) by 0.3 milliseconds. That's actually a pretty dramatic change on astronomical [timescales](#) In about a million years, the white dwarfs will get so close that the larger one will start to



cannibalize its smaller [companion](#) Before long, the two stars will likely become one. The study appears in the Astrophysical Journal Letters. The tightly wound white dwarf binary should also be radiating gravitational waves—ripples in the [fabric](#) of space and time. But today’s gravitational wave detectors are not sensitive enough to detect them. That’s okay— astronomers have another million years, before things get really interesting, to build an [instrument](#) that’s up to the task.

25. Scientists are looking for Earth like [planets](#) around other stars. But one way to limit the search can be to figure out where an Earth like planet cannot exist and [eliminate](#) those types of systems. In a new study, astronomers turned their attention to so called hot Jupiter’s. These are Jupiter sized planets that have an orbit of only about three days. The scientists looked at 63 hot Jupiter’s to see if they could find [evidence](#) for any nearby Earth like planets. They found none. But it could be that the companion planets are too small in size or mass or just aren’t [detectable](#) with the current techniques. So the researchers then turned to hot Neptune’s, and warm Jupiter’s—these are Jupiter’s with [slightly](#) longer orbits. They found only 2 potentials nearby planets among 222 hot Neptures. And of the 31 warm Jupiter’s, five showed evidences of a companion. The [findings](#) are in the Proceedings of the National Academy of Sciences. The current theory is that hot Jupiter’s formed and then migrated in towards their stars. The researchers say that the [migration](#) might have” disrupted the formation of Earth like planets. Good thing our Jupiter kept its cool.
26. Does an ice-cold drink actually taste better than the same beverage at room temperature? Depends on what its taste is: a new study finds that the [intensity](#) of some flavors varies with temperature. The work is in the journal Chemosensory Perception. Researchers took [solutions](#) that tasted bitter, sour,



sweet, or astringent – a flavor found in legumes and raw produce that creates a dry, puckering feel in the mouth. They either chilled the solutions to 5 degrees Celsius, the recommended temperature for keeping food cool... or heated the solutions to 35 degrees Celsius, a couple [degrees](#) below human body temperature [Volunteers](#) then rated the tastes. Both sour and astringent solutions tasted stronger at warm temperatures, and the intensity lasted longer than it did with chilled drinks. Bitter flavors came through best when chilled and temperature had no effect on [perception](#) of sweetness. For most people, temperature can enhance flavors. But for some, dubbed [thermal](#) tasters, temperature alone can be a flavor. Heating or cooling parts of the tongue creates the sensation of taste without food– a finding that’s hard to swallow.

27. As it ages, white paper turns a [distinctive](#) yellow. But why? To find out, scientists artificially aged modern paper to reveal the changes on the molecular level. The research is in the journal Physical Review Letters. For 48 days, three unbleached paper [samples](#) aged rapidly in reactors that simulated different environmental conditions. The researchers then compared the [artificially](#) aged samples to the real deal: three pieces of paper crafted in 15th century Europe. This [technique](#) allowed them to gauge the types and amounts of changes going on. About 90 percent of the weight of old paper is cellulose, the sturdy [material](#) that makes up plant cell walls. But over time cellulose fibres oxidize. The process [modifies](#) parts of various molecules and turns them into what are called chromophores, which absorb light. White paper is white because it reflects all colours of light. Aging paper filled with chromophores reflects wavelengths that make it look yellow. The non-destructive technique used in this study could inform research to [preserve](#)



and even whiten ancient texts and art. And give paper conservation a brighter outlook.

28. On election day, where do you vote? If it's in a church, you might be [inclined](#) to vote more conservatively than if you cast your ballot at a school or government building. That's according to research published in the International Journal for the Psychology of Religion. And the effect seems to hold, whether you're Christian, Muslim or agnostic, [progressive](#) independent or conservative. The study found that when random people were [surveyed](#) in front of a church, they gave more socially and politically conservative responses than people surveyed while standing in front of a government building. The shift in people's attitudes, the researchers suggest, was likely a result of visual priming – meaning that people who could see the [religious](#) building were, consciously or not, getting cues that influenced their response. The surveys were conducted in Europe, so it's possible American voters might react differently. But the survey included subjects from more than 30 countries to try to [minimize](#) a particular national bias. So before you cast your vote this election year, think about whether your view is influencing your views.
29. Music, film and video game makers face a new online, digital world. And some are testing a [revolutionary](#) pricing system: pay what-you want. But a new study finds that when [consumers](#) can name their own price, many may opt out of buying at all. The study is in the Proceedings of the National Academy of Sciences. For the research, tour boat passengers posed for photos. Each boat ride announced a price of 15 dollars per picture. But they then charged either 15 dollars, 5 dollars, or the option to pay what you want. As [expected](#), the fewest [tourists](#) purchased photos when they had to pay full price. But more customers bought photos when they cost 5 dollars than when prices were pay what-you want—which could have saved passengers even more



The researchers suggest that choosing to pay less than an announced lower than-expected price made people feel cheap. With choices then limited to spending more money or feeling like a tightwad, [potential](#) customers simply opted out of the purchase. So on sea or land, a low, set price may catch the most fish.

30. If you enjoy sharing all your likes and dislikes on Facebook, you're [definitely](#) not alone: research finds that broadcasting personal opinions gives people the same sense of reward as earning money. The study is in the Proceedings of the National Academy of Sciences. Study subjects had their brains [scanned](#) while they either talked about their opinions or judged the beliefs of another. And sharing their own point of view stimulated more activity in the [reward](#) processing parts of the subjects' brains. In another experiment, participants got to choose among reporting their own opinion, judging someone else's opinion or answering a true or [false](#) question. And for each choice, they could earn [varying](#) amounts of money. Rather than maximize their winnings by answering the questions that were worth the most cash, people preferred to talk about themselves – even though they [sacrificed](#) an average of 17 percent of their potential earnings to do it. For the participants, sharing personal information was its own reward. Which means that people like comedian Patton Oswald, who tweets photos of what he's having for lunch, [probably](#) feel like a million bucks.
31. Americans still fall short of the recommended daily portions of fruits and vegetables. And kids are notoriously [averse](#) to veggies at the school cafeteria. So, researchers [tested](#) whether visual cues of healthful foods could increase consumption at a grade school with 800 students. First the scientists determined how many kids put carrots and green beans on their trays and how much they ate. Three months later they did the same analysis. But on the



second day, the trays had pictures of carrots and green beans in the trays 'compartments. On the day with the photo cues, more than twice as many kids took green beans as on the control day, and more than three times as many kids took carrots. Average [consumption](#) per student went up as well. The study was published in The Journal of the American Medical [Association](#). The researchers note that the effect needs to be tested elsewhere for longer than two days. And the amount of veggies eaten still did not meet government [recommendations](#). But if pictures of burgers can sell meaty meals, maybe fresh fruit and veggie food photos can play a part in the [campaign](#) for healthier kids.

32. Global warming might seem like a [botanical](#) boon. After all, milder temperatures and more carbon dioxide and nitrogen should feed flora. But a ten-year study has found that any initial positive effect on plant growth from climate change may soon disappear. The report is in the journal Nature Climate Change. Researchers transplanted vegetation from four grassland [ecosystems](#) to lower, warmer elevations. They also modified the precipitation at the transplant sites based on altered rainfall estimates. For the first year, the plants did great, producing more biomass and churning out more [oxygen](#) for us. But their productivity went down for the rest of the decade. What happened? Warming did speed up the nitrogen cycle, which should have increased nitrogen's [availability](#) as plant fertilizer. But a lot of the nitrogen left the soil through run off or [uptake](#) into the atmosphere. In addition, productive native plants began to lose out to species that thrive at higher temperatures, but are less productive than the natives. Warmer temperatures may spur immediate growth, but in the long term, we can't [expect](#) plants to like it hot.
33. Every time you inhale, oxygen passes from your windpipe to your lungs and on into your bloodstream. But what if your windpipe was blocked? Getting the



gas straight to your blood could save your life. Wait, put down that syringe—a large air bubble in a blood [vessel](#) can kill you. But what if the bubbles were only a few millionths of a meter in [diameter](#)? Researchers coated tiny amounts of oxygen gas with fatty molecules to create micro particles. Suspended in solution, the micro [particles](#) formed a foam containing 50 to 90 percent oxygen. In a beaker of blood, the foam was able to quickly [transfer](#) its oxygen to the cells. Then the researchers tested it in animals. Normally, a blocked windpipe cuts off the blood's supply of oxygen, leading to brain damage and death. But when [rabbits](#) with blocked windpipes received [injections](#) of the micro particles, their blood oxygen levels and heart rates remained stable. The work is in the journal Science Translational Medicine. The foam may someday buy time for human patients. So that even someone with a closed airway can [breathe](#) easy.

34. Dogs are not just man's best friend. Previous studies have shown that kids with dogs are less likely to develop asthma. Now a new study may show how— if results from mice apply to us. The work was presented at a meeting of the American Society for Microbiology. The study tests what's called the [hygiene](#) hypothesis. The idea is that extreme cleanliness may actually promote disease later on. Researchers collected dust from homes that had a dog. They fed that house dust to mice. They then infected the mice with a common [childhood](#) infection called respiratory syncytial virus –or RSV. Mice who ate the dog dust were protected against RSV infection symptoms, like inflamed, mucus coated airways, suggesting [exposure](#) helped them stave off the virus. Those mice also had more diverse communities of gut bacteria than control mice did. The researchers say our pet's microbes may [colonize](#) our gut too, and help the immune system learn to [respond](#) to infections. That's important



because when kids develop severe RSV their risk of asthma goes up. So next time buster sheds all over the couch, think of it as a [bonus](#) dose of probiotics.

35. Squeeze the life out of their prey. But how does a boa know it's snuffed out a rat? The snake listens for a heartbeat. When it stops, that's the cue to let go. According to a study in the journal Biology Letters. Researchers outfitted rat cadavers with [artificial](#) beating hearts. They used dead rats to control for other signs of passing, like muscle spasms. Then they warmed up the rats, set the heart's pumping, and dangled them in front of hungry boas. The snakes [attacked](#) And as long as that rat heart kept thumping, the boas [kept](#) tightening their coils and applying bursts of pressure, sometimes for more than 20 minutes. But as soon as scientists killed the heartbeat, the boas loosened up. Even captive born boas who'd never hunted live prey paid [attention](#) to the pulse – suggesting the behavior is innate. And for good reason. The [authors](#) say constriction takes a lot of energy. And it can be dangerous, say, if an enemy strikes while the snake's coiled around its quarry. But by following the tell-tale heart, boas can keep the pressure on just long enough. Before a [relaxing](#) meal.
36. Every year, about 10 million tons of paper winds up in American landfills and incinerators, which is not only wasteful but adds CO2 to the [atmosphere](#) Recycling helps, but even that material has to be repulped and paper sized before you can use it to print out that recipe you 'll never make. But what if you could wipe the page clean and use it again? Light amplification by [stimulated](#) emission of radiation to the rescue. A new study shows that laser light can [erase](#) the toner from a piece of printed paper. The approach appears in the Proceedings of the Royal Society A. Taking a page from the art restoration [handbook](#) scientists sampled a variety of light sources to see if any could be used to strip the ink from laser printed documents without



damaging or discoloring the paper. UV and infrared were too harsh. But a bright green laser applied in 4 nanosecond pulses [vaporizes](#) the print, leaving paper that looks as good as new. Such imprinters will probably run about 30,000 bucks, so they probably will not catch on for home use. But people in the recycling world might find that the green laser fits the [bill](#) for making paper that's really green.

37. Some interesting facts about the great reptilian fossils recently discovered in Wyoming and Colorado have come to light. The bones [found](#) represent reptiles of many sizes, from that of a cat up to one sixty feet high. The latter, found at Como, Wyoming, belonged to the crocodile order; but the remains give [evidence](#) that the animal stood up on its hind legs, like a kangaroo. Another found in Colorado is estimated to have been 100 feet long. A great many remains of the same general class, but belonging to different species, have been collected and sent East. Among them from three to four hundred specimens of the dinosaur, and about a thousand pterodactyls, have been shipped from Colorado, Wyoming, and Kansas. The wings of one of the latter were from thirty to forty feet from tip to tip. Seventeen different species of these flying dragons have been found in the chalk of western Kansas. There have also been found six species of toothed birds. Comparatively little has been done toward classifying the late finds, and the task is such an [enormous](#) one. Great importance is attached to them, however, since nothing of the kind had been found in America until a little over a year ago and great [stress](#) had been laid by certain geologists on their absence. Another remarkable feature of the discovery was that the fossils which had been reported as not existing in this country had hardly been brought to light in one locality before thousands of tons of them were simultaneously discovered in half a dozen different [places](#).



38. Sweet potatoes contain fiber, vitamin A and [calcium](#). But the way that scientists think they can make them even more healthful is literally shocking. Researchers found that giving a jolt of [electricity](#) to sweet potatoes increased the level of antioxidants known as polyphenols by 60 percent. The [investigators](#) placed sweet potatoes in a solution of sodium chloride. They found that 0.2 amps of direct current gave the potatoes nearly one and a half times more antioxidants than potatoes that weren't shocked. The research was presented at the National Meeting of the American Chemical Society. It seems that the electric zap [stressed](#) the potatoes into producing more polyphenols as a protective [mechanism](#). And the treatment did not sacrifice flavor. Previous research has shown that electrically supercharging white potatoes increases antioxidant levels. So perhaps it's only a matter of time before other fruits and vegetables get shock [counted](#) therapy to Re-Start.
39. Millions of roses get handed out on Valentine's Day. But growing roses has an [environmental](#) impact worse than many other crops. Start with climate change: most roses in the U.S. and Europe are imported from warmer climes. All that flying and trucking adds thousands of metric tons of carbon dioxide to the atmosphere. Then there's all the water needed to, well, water the flowers. And the runoff fouled by copious [quantities](#) of pesticides needed to make the roses look perfect. There's also the wildlife and workers poisoned by all that fumigation. Add to that habitat [destruction](#) where floral plantations displace native forest and wetlands. Finally, there's the refrigeration needed to keep those blooms fresh. The [electricity](#) is often produced by burning fossil fuels, and the refrigerant gases also exacerbate climate change. A more sustainable and, possibly, more romantic [approach](#) is to go with flowers certified by outfits like Veri Flora, or even better, whatever flowers are in



season locally. Of course, that's not much help for those of us in wintry climes. Maybe try writing a poem. Let's see: Roses are red, violets are blue...

40. Signs that secure borrowing remains robust and firm data on manufacturing and retail [sales](#) , released on Thursday, painted the picture of an economy that has yet to be cooled by the recent states [spate](#) of interest rate rises.
41. A new process for 3D-printing things could pave the way for lighter, faster aircraft that [potentially](#) fly further on the same amount of fuel. Today's Aeroplan's are held together with thousands of metal rivets and fasteners. That's because the lightweight but strong aluminum alloys used for their frames are considered unwieldable. Try to weld them and you get a phenomenon called hot-cracking, in which the finished alloy weakens and [fractures](#) as it cools. This and other adverse welding effects also stand in the way of 3D-printing high-strength aluminum alloy parts. When researchers have tried, the resulting laser-fused mass [flakes](#) away at the welding area like a stale biscuit.
42. Dave Hackenberg, a beekeeper since 1962, can usually tell what killed his bees just by looking at them. If they're lying on the [ground](#) in front of a hive, it's probably pesticides, he says. If the bees are [deformed](#) and wingless, it's probably vampire mites. But last fall, Hackenberg saw something he had never seen before. Thousands of his bee colonies simply [disappeared](#) . He was in Florida at the time, pulling the lids off some of his commercial hives. To his [horror](#) , they were all empty.
43. Obviously, this is all relevant to your final [assignment](#) . So we're going to talk about it. So until today, we've gone through face to face interviews as the main sort of part of interviewing the window. Today we're going to have a look at going to use an email and why they work, why they don't necessarily work, and what are the [challenges](#) and some of the things that we need to be



understanding, you know when we are completing such interpreters. So let's start with the foreign one. Obviously, there are a few [benefits](#) to them, and they are listed there up on that slide. It's obviously less stressful for those of you who might be a little bit [anxious](#) about interviewing.

44. Dams are huge man-made structures that act as [barriers](#) on a river. Today, the main reason people build dams is to produce electricity. They are also built to [restrict](#) and control the flow of water in a river. Throughout history, dams have been used to prevent flooding and to [irrigate](#) farmland. Dams supply about a sixth of the world's electricity and they significantly reduce the risk of floods and [droughts](#) . They also make water easier to access, especially in desert like areas, where water is in low supply. There are however, some negative effects of damming rivers. Many people's homes are knocked down to make space for the dam, and flooding can [occur](#) in the reservoir, which is the area behind the dam where water collects . This can cause valuable farmland to become submerged under the lakes.
45. Another way in which the industry exerts pressure on doctors is by offering us a variety of [professional](#) services. In one of these services, widely advertised to GPs, a company representative shows the Practice Manager how to use a company disk to 'trawl' through the practice database identifying patients with problems which might be treatable with the company's products. When that has been done, a company-sponsored nurse interviews the selected [patients](#) and draws up a management plan for the GP which, if approved by the doctor, attracts a Medicare item number. One of these companies proudly announces that over 65,000 patients were [assessed](#) in this way in 2005. What, one may ask, is a pharmaceutical company doing assessing patients? It is surprising that no government or professional body has stepped in to prevent this commercially sponsored program.



46. It is about a hundred years since that great Canadian-born physician Sir William Osler, Regius Professor of Medicine in Oxford, [complained](#) about the increasing influence of the pharmaceutical industry on the medical [profession](#). He would be turning in his grave at the way the industry now dominates doctors' [prescribing](#) habits. It does this not only by direct and indirect pressure on the doctors themselves, but also by [encouraging](#) the public to ask for scripts.
47. And one particular crop, almond in the US and now in Australia, is [transforming](#) the world of beekeeping and of bees. What has happened is that something serendipitous came along that people found out, that doctors found out that almonds are good for you, a [confection](#) but it's good for you. The Almond Board got a very aggressive promotion going on for almonds. They actually, I just heard recently, send out sales reps to cardiologists at hospitals to promote the heart benefits of almonds. In a very good promotion of almonds, and it's [legitimate](#) promotion because they are a healthy food.
48. Well, the simple explanation might be that yesterday's [sudden](#) drop in share prices pretty much across the board has created what market analysts like to call a buying opportunity. It tends to bring out investors to pick through the ruins, looking for [bargains](#) Decision by investors that sellers got a little carried away with things so the buyers have [lifted](#) all the major indexes today. The Dow, the NASDAQ, the S&P 500 were all up around half a percent in early trading today, and that wasn't a big surprise. The sell-off continued somewhat [overseas](#) European markets remain fairly weak, along with many of the Asian markets. But you'll remember that all this started with a big [plunge](#) of around 9 percent on the stock market in Shanghai. Well, Chinese rebounded by around 4 percent.



49. Well, I'm absolutely delighted first of all to have been [appointed](#) to this professorship. The role is going to be about public engagement in science, it is about marketing science [accessible](#) to as wide an audience as possible, it's about making it easier for our [academics](#) here at the University of Birmingham to talk about their research to the general public and it's not just about a one-way flow of information, it very much is about dialogue.
50. My current research at the moment is really quite broad. I work at the interface between the Arts and Humanities, particularly [archeology](#), but trying to find questions which are difficult to answer unless you start integrating computing and [visualization](#) So really, I work in this boundary between trying to understand cultural questions about the past, but those sorts of questions that you can't address unless you start reconstructing, start modeling and visualizing past [landscapes](#) objects and movement of people.
51. You've heard about SARS, AIDS and bird flu. Now [researchers](#) from Australia claim we're about to be hit by a new epidemic: Motivational Deficiency Disorder. According to the British Medical Journal, one in [five](#) people are said to suffer from Motivational Deficiency Disorder, or Molded, and most don't even know they have it. [Symptoms](#) include being unable to get out of bed in the morning, being trapped on the couch.
52. There are some 250 million cars in America, 250 million cars in the country with just over 300 million people. And most of those vehicles, of course, are gas [powered](#). This poses a huge challenge given the limited supplies of oil and the growing [urgency](#) of the global warming crisis. But there is good news, according to our guests today. And that is we have the know-how and the technology to build [sleek](#), fast automobiles that don't use gasoline. These vehicles of tomorrow are powered by [hydrogen](#) , electricity, bio-fuels, and



digital technology. And they already exist. So what's stopping us from putting them on the roads? Our guests today will help answer that.

53. The first section of the book covers new modes of assessment. In Chapter 1, Kimbell (Goldsmith College, London) responds to [criticisms](#) of design programs as formalistic and conventional, stating that a focus on risk-taking rather than hard work in design innovation is equally problematic. His research contains three parts that include preliminary exploration of design innovation qualities, investigation of resulting classroom practices, and development of evidence-based assessment. The assessment he describes is presented in the form of a structured worksheet, which includes a collaborative [element](#) and digital photographs, in story format. Such a device encourages stimulating ideas, but does not recognize students as design [innovators](#). The assessment sheet includes holistic impressions as well as details about 'having, growing, and proving' ideas. [Colloquial](#) judgments are evident in terms such as 'wow' and 'yawn' and reward the quality and quantity of ideas with the term, 'sparklines', which fittingly is a pun as the model project was to design light bulb packaging. In addition, the assessment focuses on the process of optimizing or complexity control as well as proving ideas with thoughtful criticism and not just generation of novel ideas. The definitions for qualities such as 'technical' and 'aesthetic' pertaining to users, are too narrow and ill-defined. The author provides [examples](#) of the project, its features and structures, students' notes and judgments, and their sketches and photographs of finished light bulb packages, in the Appendix.
54. This year marks the 400th anniversary of the first [permanent](#) English settlement in America. A group of Englishmen, including John Smith, who [later](#) was befriended by Pocahontas, built a [fort](#) at Jamestown, Virginia in 1607, 13 years before the Pilgrims crossed the [Atlantic](#) on the Mayflower. And for the



past 14 years, Bill Kelso has been working to [uncover](#) the secrets of Jamestown.

55. Green Chemistry is a concept designed to develop [technologies](#) which allow chemistry to be practiced with minimal damage to the environment, or in an environmentally [compatible](#) way, and it's meant to cover both chemical processes and chemical [products](#) . The center was set up about seven or eight years ago. And the idea was to provide a hub of activities that covered [fundamental](#) research work, international collaboration, but also educational development on public [understanding](#) of the project as well, and also networking so we network out to well over 1000 people around the globe.
56. What I'm trying to understand, and what other [colleagues](#) of mine are trying to understand, is how we moved from that cold climate condition to the warm climate condition that we enjoy today. We know from ice core research that the [transition](#) from these cold [conditions](#) to warm conditions wasn't smooth, as you might predict from the slow increase in solar radiation. And we know this from ice cores, because if you drill down into ice, you find annual bands of ice, and you can see this in the iceberg. You can see those blue-white layers. Gases are [trapped](#) in the ice cores, so we can measure CO2 that's why we know CO2 was lower in the past and the chemistry of the ice also tells us about [temperature](#) in the polar regions.
57. Perhaps you've seen pictures of the [large](#) array of, you know, those radio telescopes in New Mexico, scanning the skies for [intelligent](#) life in the movie contact Well radiant astronomers have caused to [celebrate](#) the first phase of a giant new Radio Telescope Array went [operational](#) in Northern California, it's going to help astronomers study things like black holes and dark [galaxies](#) . All the while scanning the stars for, who knows, radio [signals](#) coming from somewhere else in the universe. Maybe ET is phoning home.



58. The Earth is warning. Almost all the Arctic [summer](#) ice may have melted by the end of the century, claims the Intergovernmental Panel on Climate Change the IPCC. The upside. [Access](#) to an estimated quarter of the world's oil and gas resources and the [opening](#) of the fabled Northwest Passage. The downside. The Arctic wilderness is lost as [neighboring](#) countries, Denmark and Greenland, Russia, Canada, Norway, and the United States all race to [share](#) in the bounty.
59. These two paintings, both called "Sunflowers," are generally accepted as the finest of several [depictions](#) of the thick-stemmed, nodding blooms that Van Gogh made in 1888 and 1889 during his time in Arles. The first is now in the collection of the National Gallery in London, and the second is in the Van Gogh Museum in Amsterdam. Van Gogh referred to this work as a [repetition](#) of the London painting. But art historians and curators have long been [curious](#) to know how different this "repetition" is from the first. Should it be considered a copy, an independent artwork or something in between? An [extensive](#) research project conducted over the past three years by conservation experts at both the National Gallery and the Van Gogh Museum has concluded that the second painting was "not intended as an exact copy of the [original](#) example," said Ella Hendriks, a professor of conservation and restoration at the University of Amsterdam, who was the lead researcher on the project.
60. Rebuilding carbon-rich agriculture soils is the only real productive, [permanent](#) solution to taking excess carbon dioxide from the atmosphere. She's [frustrated](#) that scientists and politicians don't see the same opportunities she sees. This year Australia will [emit](#) just over 600 million tonnes of carbon. We can sequester 685 million tonnes of carbon by [increasing](#) soil carbon by half a



percent on only 2% of the farms. If we increased it on all of the farms, we could sequester the [whole](#) world's emissions of carbon.

61. An economist sees the world basically through a typical micro-economic toolkit. That involves things like thinking at the [margin](#) , rationality, opportunity cost, trade-offs. Economists like any other discipline rules, and its own way of seeing the world. So basically economics, or economists in general tend to [apply](#) micro-economic concepts like that to explain the way humans [behave](#) and to make predictions about the future.
62. Finally, we take a look at how to mix and unmix [liquids](#) at the flick of a switch. Sandrine tells us more. Oil and water don't usually mix, but the new chemical sensitive to light has been added here to [blend](#) them together. When [exposed](#) to UV light, the chemical changes its structure and become soluble in water. This causes two layers to form with the oil floating on top of the water chemical combo. This method should be cheaper than the current [alternative](#) which involves using high energy centrifuges.
63. What is nanotechnology? Well, a report that was put together by a [combination](#) of the Royal Society and the Royal Academy of Engineering that came out last summer, [identifies](#) two topics. Nano science is the study of [phenomena](#) and the manipulation of materials at atomic, molecular and [macromolecular](#) scales, where properties differ significantly from those as a larger scale. Nanotechnologies are the design characterization, production and application of [structures](#) , devices and systems by controlling shape and size at the nanometer scale. So I'll talk a little bit more in a moment about what a nanometer is, but [loosely](#) speaking people think of nanotechnologies as being a sort of a hundred nanometers or less.
64. Financial markets swung wildly yesterday in frenzied trading market by further selling of [equities](#) and [fears](#) about an unraveling of the global carry trade. At



the same time trading in the European credit markets in London was exceptionally [heavy](#) as traders frantically reassessed their appetite for risk—prompting wild [swings](#) in the prices of the key derivatives. It was the third day of frenetic activity in the European credit markets, suggesting that equity market swings were prompting a wider repositioning of investors in a host of asset classes.

65. For many years the favorite horror story about [abrupt](#) climate change was that a shift in ocean currents could [radically](#) cool Europe's climate. These currents, called the overturning [circulation](#) bring warm water and warm temperatures north from the equator to Europe. Susan Loosier, an [oceanographer](#) at Duke University, says scientists have long worried that this ocean circulation could be disrupted.
66. Along the way, we have built [unashamedly](#) beautiful buildings, two of which have won and been runner-up in the prestigious United Nations World [Habitat](#) Award: the first time an Australian building has received that international honor. We rely on older [concepts](#) of Australian architecture that are heavily influenced by the bush. All residents have private verandas which allow them to [socialize](#) outdoors and also creates some "defensible space" between their bedrooms and public areas. We use a lot of [natural](#) or soft materials and build beautiful landscaped gardens.
67. In animals, a movement is coordinated by a cluster of neurons in the spinal cord called the central [contract](#) pattern generator (CPG). This produces signals that drive muscles to contract rhythmically in a way that produces running or walking, depending on the [pattern](#) of pulse. A simple signal from the brain instructs the CPG to switch between [modes](#) such as going from a standstill to walking.



68. Laurence Stephen Lowry RBS RA was an English artist. Many of his drawings and paintings depict Pend Ledbury, Lancashire, where he lived and worked for more than 40 years, and also Salford and its surrounding areas. Lowry is famous for painting scenes of life in the [industrial](#) districts of North West England in the mid-20th century. He developed a [distinctive](#) style of painting and is best known for his city landscapes peopled with human figures often referred to as [matchstick](#) man. He painted mysterious unpopulated landscapes, brooding [portraits](#) and the unpublished "marionette" works, which were only found after his death.
69. Now that story's been scotched, as only part of contingency planning. But it was a symptom of the dramatic turn of events in South Australia, and it flushed out other remarks from water [academics](#) and people like Tim Flannery, indicating that things were really much worse than had been [foreshadowed](#) , even earlier this year. So is Adelaide, let alone some whole [regions](#) of South Australia, in serious bother? Considering that the vast amount of its drinking water comes from the [beleaguered](#) Murray, something many of us outside the State may not have quite realized. Is their [predicament](#) something we have to face up to as a nation?
70. All around the world, significant parts of our cultural heritage are by pollution, neglect, [carelessness](#) and greed. In learning the importance of our history, we come to understand the need to protect significant [remains](#) from the past so that future [generations](#) can come to understand their heritage.



WRITE FROM DICTATION

1. The literature lesson will be divided into four units
2. The program has been successful since its inception
3. Anatomy is the study of internal and external body structures
4. Her property was assigned to her grandchildren
5. Currently, computer literacy has become essential in many workplaces
6. We have done everything we can to standardize the procedure
7. Each new product would have a relatively long-life cycle
8. We are going to demolish the old building next week
9. She was sitting outside a cafe in the sunshine
10. The output should be proportional to the input
11. This guide book offers information on local customs policies
12. I went down into the cellar for more wine
13. The tree began to decay as soon as it was cut down
14. He had always obeyed his parents without question
15. There has been a sharp slowdown in economic growth
16. Farmers used to hire themselves out to whoever needed them
17. The governor has denied making improper use of the state money
18. He was made president of the football club
19. The book on the shelf is a carefully documented biography
20. The old lady was an industrious and willing worker
21. The ship was helpless against the power of the storm
22. All our results are published in scientific journals
23. The student service center is located on the main campus behind the library.
24. In computer science degree, there is a new module in artificial intelligence.



25. The instant availability of information has radically changed people's lives.
26. During that time people had large families as an insurance against some children loss.
27. Understanding ancient poetry is efficient for the project.
28. The rising temperature has led to lower agricultural output.
29. You can borrow eight books from the library at a time.
30. Journalists need to work with a range of technologies.
31. In computer science degree, there is a new module in artificial intelligence.
32. The guidelines are due to be updated shortly.
33. The student service center is located on the main campus behind the library.
34. Please cite several sources in your work.
35. Students must present a valid identification to enroll in this course.
36. Universities across the United Kingdom welcome a range of students.
37. The university now faces a serious challenge of finance.
38. Scientists use new technologies in labs.
39. It is not always possible to find patterns in data.
40. Apple is expected to announce several new products this fall.
41. During that time people had large families as an insurance against some children loss.
42. Remember to bring calculators to class next week.
43. The postgraduate education depends entirely on private funding.
44. The instant availability of information has radically changed people's lives.
45. The new drug will be generally available from January
46. The arrival of armed police made the students disperse
47. The education department has now made these courses obligatory
48. University teachers are required to supervise students' examinations
49. The professor adapted his lecture to his audience



50. This college admits students anytime during the year
51. Everyone in the class seemed eager to learn
52. Students are expected to be quiet and polite in the classroom
53. The shops in central London keep open late on Thursday evenings
54. The children's reading club meets every Monday afternoon
55. A commercial college teaches things that would be useful in business
56. At university she developed a special interest in ecology
57. He was invited to the lecture on American literature at our school
58. The company has adopted a firm policy on shoplifting
59. He taught physics to the students at a college ten years ago
60. The arrangements are all in place for the concert next month
61. Lack of motivation resulted in his failure of the project
62. A scientist must produce evidence in support of a theory
63. The government will maintain its strictly neutral policy
64. The doctors are discussing how to cure this patient
65. The chairman of the committee is expected to be back tomorrow
66. Every week we have a seminar on modern political theory
67. They trust in the information received from the girl
68. Mathematical physics is difficult for the new students
69. She collected a vast body of information on the subject
70. The findings are similar to those reported in previous research
71. Sociological studies emphasize the importance of the family
72. Her statement was a clear expression of her views on this program
73. The online handbook gives details of all courses
74. This university provides free accommodation for its students
75. Many small businesses have gone bankrupt in recent years
76. The company was sued for breach of copyright



77. Fish can take in oxygen when they are under water
78. He made an announcement of further cuts in government expenditure
79. The education system must satisfy the needs of all children
80. The communities are demanding equal rights and justice
81. Every student in this class is capable of passing the exam
82. We have been unsuccessful in finding a new manager
83. He's the president of a large international organization
84. The secretary of state is presently considering the proposal
85. The student was puzzled about what to do next
86. The school rewarded him with a prize for excellence in his studies
87. The art course has been cancelled due to the new policy
88. University volunteers work together to help students who suffer from hunger
89. The government has to do more to promote agriculture
90. He became a poet after dropping out of high school
91. Watching television can be very educational for children
92. The professor took the students to the chemistry lab
93. The history exam tomorrow afternoon concerns him a lot
94. The university has decided to introduce new subjects
95. The factory will compensate its workers if they are hurt at work
96. Water will freeze when the temperature is below zero
97. At last, she passed the exam with a friend's help
98. The complicated problem is beyond my comprehension
99. Both runners had pushed themselves to finish the race
100. Many businesses near the campus offer students discounts.
101. We have to reduce the use of our plastic material
102. Exam results will be published on the noticeboard
103. The field of journalism has been seeing job declines for decades



104. Joining a society can help to meet new people
105. Online courses enable people to improve their skills while employed
106. Humans use symbolic languages to communicate plans and contentions
107. The lecture will take place in the main hall
108. Technological advancements are responsible for businesses' having to constantly change
109. A wide range of aspects are covered in this subject
110. Students will get their marks by the combination of both assessments and examinations
111. Excellent knowledge is needed for mathematics
112. The university lecture theater will be closed for colossal renovation
113. The students are to submit their research on time
114. Keep your audience in your mind when writing an essay
115. They demanded a refund on unsatisfactory goods
116. The team has been successful in achieving challenging objectives
117. The motive power of trains is usually steam or electricity
118. The lack of facilities in the town may discourage potential visitors
119. Acceptance by their peer group is important to most youngsters
120. Marketing techniques are now becoming increasingly sophisticated
121. Teachers are trained to stimulate the children's cognitive development
122. He still feels insecure about his ability to complete the work
123. The present system does little to deter corporate crime
124. He was in an argument with his landlord downstairs
125. Some people regarded it as care, while others regarded it as recklessness.
126. The results of the study underscored the discoveries from early detections.
127. The main problem is the increase of plagiarism exacerbated by the Internet.
128. This course will teach engineering students practical skills and concepts.



129. High fees caused students to look more critically at what universities offer.
130. Remember to take all your belongings when you leave the lab.
131. Weather patterns have changed significantly over the past two hundred years.
132. Good nutrition is crucial to general health and vitality.
133. As student union members, you can influence and change our university.
134. Archeologists discovered tools and other artifacts near the ancient tombs.
135. Farming methods across the world have greatly developed recently.
136. The earth's atmosphere is primarily composed of nitrogen and oxygen.
137. Laundry facilities are available in each school unit free of charge.
138. The project is divided into four main sections.
139. Law is beneficial to investors by protecting their rights and avoiding any improper actions in the market.
140. Critical thinking is crucial for mathematics.
141. The study of nutrition is a growing field.
142. Library reference desks hold a lot of materials on academic history.
143. The new paper challenged many previously accepted theories.
144. All students are expected to participate in all class activities.
145. Tribes vied with each other to build up monolithic statues.
146. Safety is the most important in the biology lab.
147. The library has a wide range of collection of images and films.
148. Researchers say many students feel stressed and affect academic results.
149. There is a separate reading list for each course.
150. These words recognized the excellence of undergraduates' research projects.
151. The business policy seminar includes an internship with a local firm.
152. Democracy is constantly offering a stable form of government.
153. You shall be studying economies of several developing countries.



154. Human beings compete with other things for resources and space.
155. The posters are on display at the larger lecture theatre.
156. This survey will look at the greatest scientists of all time.
157. I thought it was thrown in a small meeting room.
158. This course can help to deepen your appreciation of art.
159. The government financial plan has threatened the social services.
160. All medical staff will be available for help for students.
161. Our lecture today will discuss the American War of Independence.
162. Economic development needs to be supported by the government.
163. Distance learning allows you to develop a career around your commitments.
164. Continuing students will be sent necessary application forms.
165. Your lowest quiz grade has been omitted from the calculations.
166. You will need to purchase an academic gown before the commencement.
167. You should submit your team papers to the general office.
168. You need to hand in the essay next semester.
169. You may need to purchase an academic gown before the commencement.
170. Good nutrition is crucial to the general health and vitality.
171. A good research assistant is not afraid to ask questions.
172. Understanding how to use the library will save your time.
173. Travelling by boat on the river is not possible in winter.
174. This course provides the opportunity to get valuable industry experience.
175. This course is integrated because it has several parts.
176. There is clearly a need for further research in this field.
177. There is a pharmacy on campus near the bookstore.
178. The toughest part of research for postgraduate students is funding.
179. The theatre courses are encouraging students to access creativity.
180. The teacher asked the group to commence the task.



181. The summer course was canceled due to insufficient re-enrollments.
182. The school's summer programs help students to accelerate their studies.
183. The rising temperature is changing the wildlife population.
184. The railway makes long-distance travel possible for everyone.
185. The meeting has some struggling overlaps.
186. The massive accumulation of data was converted into a communicable argument.
187. The lecture will cover the reason of climate change.
188. The key difference between courses is the kind of assessment.
189. The faculty staff are very approachable, helpful and extremely friendly.
190. The extent of advertising for children is open to much debate.
191. The economy is now on its first signs of recovery.
192. The earth's atmosphere is mostly composed of nitrogen and oxygen.
193. The development in the information technology has greatly changed the way people work.
194. The city's founders created a set of rules that became laws.
195. The chemistry building is located near the entrance of the campus.
196. The camera can identify eyes and focus on them.
197. The cafeteria features sandwiches, salads, soup, fish and chicken.
198. The business plan seminar includes an internship with a local firm.
199. The bar chart provides useful means of data comparison.
200. The author's early works are less philosophical and more experimental.
201. The artists tied with the conservative politicians earned the roles of critics.
202. The participation rate in the study of language learning exceeded the expectations.
203. The application process may take longer than it's expected.
204. The poster of this play is hung in the large lecture theatre.



205. The chemistry building is located near the entrance to the campus.
206. Artificial intelligence has made significant progress for the last few years.
207. The sociology department is highly regarded worldwide.
208. His appointment with the Minister of Culture seems like a demotion.
209. This morning's lecture on economic policy has been canceled.
210. In any written assignment, a detailed literature review is very important.
211. We can't consider any increase in our price at this stage.
212. Students should take the training course to use the gym.
213. The extent of advertising for children is very much open to debate.
214. Many graduates of journalism can get jobs in the communications field.
215. A good abstract highlights the key points of a paper.
216. The university provides leisure activities for students and staff.
217. The school canteen sells a large variety of water and food.
218. The commissioner will portion the funds among all the sovereignties.
219. Philosophy uses a lot of logic and reasoning to analyze human experiences.
220. Reading widely is an important part of the undergraduate study.
221. There are a variety of disciplines in the field of engineering.
222. Lecture outlines are available on the college internal website.
223. Mobile devices are not allowed to be used during the examination.
224. Please click on the logo above to enter the site.
225. A very basic definition of computing is counting and calculating.
226. The momentum is defined as the combination of mass and velocity.
227. Summer schools allow some students to accelerate their studies.
228. Rising inflation means a decrease in demand for consumer products.
229. Application forms should be submitted in one week.
230. There is a lecture going on just in front of the room.



231. Globalization has been the most important phenomenon in the United Arab Emirates.
232. The elephant is the largest animal living on land.
233. Many inventors in the engineering sector are inspired by nature.
234. Globalization has been an overwhelming urbanization phenomenon.
235. All essays and seminar papers must be submitted to your tutor via email.
236. speaker began the outlines before the presentation.
237. The American astronomers made a plan for landing a spaceship on Mars.
238. Students are encouraged to take part in their study as well as games.
239. The use of wind energy has increased rapidly.
240. Students must know the technological aspects of the society.
241. Major sports on campus include rugby, soccer, and tennis.
242. All the student union students can register their names to get that service.
243. The program depends entirely on private funding
244. To get further extension, you need to call the education executive on 401.
245. Effective presenters make eye contact with the audience.
246. Every student has a regular meeting with his or her personal tutor.
247. As student union members, we can influence the change of university.
248. Industrial experts will discuss job opportunities in an automatic labor force.
249. It would be extremely beneficial to work together.
250. Manufacturing now brings more people in than agriculture and fishing combined.
251. More research is needed before any definitive conclusion is drawn.
252. Several candidates will be qualified as the greatest scientists of all time.
253. The cooperator operates a continuous assessment.
254. The site is designed to be highly interactive.
255. There are more opportunities to receive the grants in most artistic fields.



256. You do not need to have specialist knowledge to be able to read the book.
257. This course puts great emphasis on critical thinking skills.
258. Despite their differences, all forms of lives share the same characteristics.
259. Many vocational courses in the institution are funded by private enterprises.
260. Everyone must evacuate the premises during the fire drill.
261. Native speakers are exempted from the language tests in their own languages.
262. This paper challenged the previously accepted theories.
263. We can have a lecture on the morning of Thursday.
264. The railways were made to make distant travel possible.
265. The archaeologist's new discoveries stand out in previously overlooked foundations.
266. That means that we have so many struggles in the lab.
267. Supply and demand is one of the most fundamental concepts in economics.
268. Students will focus on reporting news on the changing media world.
269. Students who are successful have a good strategy for learning.
270. Students have the options to live in college residences or apartments.
271. Student concession cards can be obtained by completing an application form.
272. Statistical results should be expressed in different ways depending on the circumstances.
273. She has made a significant contribution to the field of chemistry.
274. Scientists are always asking the government for more money.
275. Safety glasses should be worn while doing experiments in the lab.
276. Recession triggers creativity and high rates of entrepreneurship due to past experience.



277. Read the student safety instructions before using any equipment in the workshops.
278. Participants are initially selected from a range of foundation subjects.
279. Organizational failure is considered from various perspectives in academic literature.
280. Organization plays an important role in academic literature.
281. One of the election promises is to decrease the income tax.
282. Mutually exclusive events can be described as either complementary or opposite.
283. Most of these features were part of the previous system.
284. It was hard to anticipate how all the different characters would react.
285. It is important to make clear notes while you are reading.
286. In this language course, we focus on fluency and accuracy.
287. Good research delivers practical benefit to real people.
288. Geography is generally divided into two branches: human and physical.
289. Experts are now able to forecast weather over much longer periods.
290. Education and training provide important skills for the labor force.
291. Economic problems caused a big rise in unemployment.
292. Daily practice can build confidence and improve skills.
293. Clinical placement in nursing prepares students for professional practice.
294. Climate change is now an acceptable phenomenon among a group of reputable scientists.
295. The magazine is trying hard to get more readers to subscribe
296. So far, the computer has proved very efficient at processing information
297. It is difficult for him to adjust to student life
298. Beans are an inexpensive source of protein
299. Infringement of the regulation is punishable by a fine



300. The president is backtracking on his promise to increase healthcare spending
301. The chemical experiment has confirmed my theory
302. They will transfer those books into the new library
303. Many people travel to work each day by railway
304. The purpose of the program is primarily educational
305. His humorous remark made everyone in the room laugh
306. The town provides a wide choice of entertainment
307. I recommend that you should get some professional advice
308. He picked up his bags and hurried across the courtyard.
309. This dictionary tries to simplify the meanings of words
310. During the war children suffered from a deficiency of food
311. Teachers must keep a record of students' attendances
312. We are confident that the profits will be higher next year
313. She will take her professional exam later this year
314. She developed a passionate interest in wild flowers
315. The factory has achieved a steady growth in output
316. There is no proof that the document is authentic
317. The country's trade extended from China to Sweden
318. Parents have the authority to discipline their children
319. We must decide how to utilize the resources we have
320. There's some doubt about his suitability for the job
321. The prices for food are subject to variation
322. The disease occurs most frequently in rural areas

THANK YOU!



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