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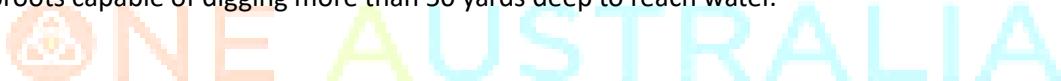
The bill calls for the establishment of the National Landslide Hazards Reduction Program within one year of becoming law. The program serves numerous functions, including to identify and understand landslide hazards and risks, reduce losses from landslides, protect communities at risk of landslides hazards, and improve communication and emergency preparedness.

Agricultural problems due to climate change of normal weather, water depletion and the collapse of soil have become big problems in all parts of the world. Many are now focusing on ethics and family farming as a way to combat these issues.

An innovative new product or service can give a firm a head start over its rivals, which can be difficult for a new entrant to overcome. If the new technology is also patented, then other firms cannot simply copy its design. It is legally protected.

A community's urban forest is an extension of its pride and community spirit. Trees enhance community economic stability by attracting businesses and tourists as people tend to linger and shop longer along tree-lined streets. Apartments and offices in wooded areas rent more quickly and businesses leasing office spaces in developments with trees reported higher productivity and fewer absences.

The networks of roots that plants use to absorb water and nutrients can encompass a space larger than the part of the plant visible above ground. The nature of these root systems can help plants adapt to challenging environments such as deserts. For instance, mesquite trees can develop taproots capable of digging more than 50 yards deep to reach water.



Within this free course, you will be introduced briefly to the discipline of child psychology and to theories and approaches that have been developed to help us understand and support children's lives by focusing on the individual children. Psychologists can assess changes in their child's abilities over time, including their physical, cognitive, social, and emotional development.

The course considers the ways in which thinkers have responded to the particular political problems of their day and the ways in which they contribute to a broader conversation about human goods and needs, justice, democracy, and the proper relationship of the individual to the state.

Statistics are indicators of change and allow meaningful comparisons to be made. While it may be the issues rather than the statistics as such that grab people's attention, it should be recognized that it is the statistics that informed the issues. Statistical literacy, then, is the ability to accurately understand, interpret and evaluate the data that inform these issues.

Three hundred and eighty years after his death, William Shakespeare remains the central author of the English-speaking world; he is the most quoted poet and the most regularly produced playwright—and now among the most popular screenwriters as well. Why is that, and who "is" he?

At a time when stress levels are soaring, rates of depression are increasing and the gap between rich and poor is ever widening. We believe that giving can play a positive role in helping people to feel connected to those around them and generate a sense of purpose and hope. When we give, we feel valued, useful and happy.

Your tutor helps you make the most of your time at university by giving you guidance and support along the way. All new students are allocated a personal tutor who will encourage you to get the most out of your course, direct you to other sources of support and help you achieve your goals.

To some extent, attendance at cultural venues and events is influenced by a person's age and the composition of the household in which they live. For example, those people in household with dependent children were more likely to visit zoological parks and aquariums than people living in single person households.

Your body is nearly two-thirds water. And so it is really important that you consume enough fluid to stay hydrated and healthy. If you don't get enough fluid you may feel tired, get headaches, and not perform at your best.

Rarely, however, does a single research study produce the certainty needed to assume that the same results will apply in all or most settings. Rather, research is usually an ongoing process, based on many accumulated understandings and explanations that, when taken together, lead to a generalization about educational issues and practice, and ultimately, to the development of theories.

Experts discuss the significance of attending the theater as a civic occasion, associated with the political and cultural achievements of Athens. Through archeology and analyses of contemporary art forms such as decoration on pottery, a picture is built up of ancient Greek theater.

Members of a culture must conform to its norms for the culture to exist and function. Hence, members must want to conform and obey rules. They first must internalize the social norms and values that dictate what is normal for the culture. Then they must socialize or teach norms and values to their children.

In the late 16th and 17th centuries, many English, French and Dutch emigrants went to North America in search of gold and silver. But they did not find it. Instead, settlers were forced to support themselves by cultivating crops that they could sell in Europe, like tobacco, indigo and rice.

This is a new, accessible and engaging textbook written by academics who also work as consultants with organizations undergoing change. It offers a unique combination of rigorous theoretical exploration together with practical insights from working with those who are actually responsible for managing change.

There were various explanations for volcano behavior before the structure of the earth mantle as a semisolid material was developed. For decades, awareness that compression and radioactive materials may be heat sources was discounted and volcanic action was often attributed to chemical reactions and a thin layer of molten rock near the surface.

Most babies start developing their hearing while still in the womb, prompting some hopeful parents to play classical music to their pregnant bellies. Some research even suggests that infants are listening to adult speech as early as 10 weeks before birth, gathering the basic building blocks of their family's native tongue.

A study of nearly 2,000 children found that those who reported playing video games for three hours per day or more performed better on cognitive skills tests involving impulse control and working memory compared to children who had never played video games.

 Eating a handful of almonds a day significantly increases the production of butyrate, a short-chain fatty acid that promotes gut health. Whole almond eaters had an additional 1.5 bowel movements per week compared to the other groups. Eating almonds could also benefit those with constipation.

Globalization refers to a set of changes rather than a single change. Many of these changes are social, cultural and political rather than purely economic, and one of the main drivers in addition to the global marketplace is the communication revolution.

We want a recreation in adulthood of what it felt like to be administered to and indulged. In a secret part of our minds, we picture someone who will understand our needs, bring us what we want, to be immensely patient and sympathetic to us, act selflessly, and make it all better.

We've spent a lot of money over the last seventy years on flood control, and it's protected millions of people and has saved us billions of dollars. We've built dams to hold back the waters. We've built

levees to keep the water off the people, and we've raised the ones that were originally started in seventeen eighteen.

Many individuals have unwittingly contributed to this book through sharing ideas with us as colleagues, students, practitioners, tourists, and residents of destination areas. They are too numerous to thank individually. And indeed, it is not possible to isolate exactly their specific contributions.

It is normally expected that the final version of your thesis which must be submitted to the university library in both hard copy and electronic form will be freely available to the public. Once in the library, your thesis may be consulted, borrowed, and copied in accordance with the regulations.

We can see from the X-rays that at an early stage of painting, a window was painted at the left of the portrait. It seems that there may have been two windows in the initial design for the portrait or that the window was moved at an early stage.

Psychology is the study of cognitions, emotions, and behavior. Psychologists are involved in a variety of tasks. Many spend their careers designing and performing research to understand how people behave in specific situations, how and why we think the way we do, and how emotions develop and what impact they have on our interactions with others.

Changes in climate affect, for example, the plant and animal life of a given area. The presence of coal beds in North America and Europe, along with evidence of glaciation in these same areas, indicates that they must have experienced alternately warmer and colder climates than they now possess.

Our central aim is to enable you to develop knowledge and attitudes and skills that are conducive to constructive involvement, cooperation, and teamwork with others and will serve you well in future endeavors. To succeed, the process demands all of us a serious exercise in civic responsibility.

Regular exercise releases brain chemicals key for memory, concentration, and mental sharpness at the same time as lifting your mood, and lowering stress and anxiety all of which contribute to brain health. Studies show that regular exercise helps you manage complex tasks, organize and razor-sharpen your focus which is great for those long revision sessions or particularly complex exam questions.

In medicine, the application of information technology means the digitalization of medical records and the establishment of an intelligent network for sharing those records. Other benefits flow from

these technological changes. In the past, medicine has taken a paternalistic stance, with the all-knowing physician dispensing wisdom, but that is becoming increasingly untenable.

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 that they frequently mark pages and write annotation on them. When moving into a new field, they add to their collections, usually concentrating on primary texts.

The world's fifth largest continent: Antarctica is almost entirely covered by ice 2000 meters thick. The area sustains varied wildlife including seals, whales, and penguins. The Antarctic treaty signed in 1959 and enforced since 1961 provides for international governance of Antarctica.

Despite a number of events in recent years devoted to language diversity, language endangerment, and multilingualism, such as the International Year of Languages, public awareness of the issues is still remarkably limited. Only one in four of the population know that half the languages of the world are so seriously endangered that they are unlikely to survive the present century.

Children as young as 14 months old will spontaneously help others for no reward. But a study of 3-to-5-year-olds found that, although they would spontaneously draw pictures, if they were given a reward for drawing pictures, then later they wouldn't make any drawings unless a reward was offered.

Aquaculture, also known as aquafarming, is the farming of aquatic organisms such as fish, crustaceans, mollusks, and aquatic plants. Aquaculture involves cultivating freshwater and saltwater populations under controlled conditions.

Our widespread participation in social media in recent years has led to the emergence of what is termed social media influencers'. These online entrepreneurs are people who have created a positive reputation amongst their followers for providing knowledge or expertise on a particular subject. The brands have seen them as a means of promoting their product or service to thousands and sometimes millions of people.

Most bond funds have credit risk, which is the risk that companies or other issuers whose bonds are owned by the fund may fail to pay their debts, including the debt owed to the holder of their bonds. Some funds have little credit risk, such as those that invest in insured bonds or U.S. Treasury bonds. But be careful: nearly all bond funds have interest rate risk, which means that the market value of the bonds they hold will go down when interest rates go up.

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 brains scanned by a functional MRI machine. All the sounds activated the premotor cortical region of the brain—an area preparing facial muscles to move.

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 the creation and extinction.

The provision of accurate and authoritative statistical information strengthens our society. It provides a basis for decisions to be made on public policy, such as determining electoral boundaries and where to locate schools and hospitals. It also allows businesses to know their market, grow their business, and improve their marketing strategies by targeting their activities appropriately.

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.

Researchers have developed electronic blood vessels that can be actively tuned to address subtle changes in the body after implantation. The blood vessels--made of a metal-polymer conductor membrane that's flexible and biodegradable--mimic natural blood vessels, were conductive in vitro experiments, and were able to effectively replace key arteries in rabbits.

But on May third, 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.

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.

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 by 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.

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 street lights, 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.

Imagine living all your life as the only family on your street. Then, one morning, you open the front door and discover houses all around you. You see neighbors tending their gardens and children walking to school. Where did all the people come from? What if the answer turned out to be that they had always been there—you just hadn't seen them?

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.

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.

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.

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 survival 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.

A fence is a humanly erected barrier between two divisions of land, used to mark a legal or other boundary, to keep animals or people in or out, and sometimes as an ornament. In newly settled lands, fences are usually made of materials at hand, e.g., stone, earth, or wood.

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.

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 thirty-one million dollars stolen. Of the cases identified by the research, 56 involved women and nine instances involved men. However, male bookkeepers who defrauded their employers stole three times, on average, the amount that women stole.

The grid-based infrastructure enables large-scale scientific applications to be run on distributed resources. However, in practice, grid resources are not very easy to use for the end-users who have to learn how to generate security credentials. There is an imminent need to provide transparent access to these resources so that the end-users are shielded from the complicated details.

A mental illness is a health problem that significantly affects how a person feels, thinks, behaves, and interacts with other people. People who experience mental illnesses and their family and friends suffer a great deal due to these illnesses. According to the World Health Organization, depression will be one of the biggest health problems worldwide by the year 2020.

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.

The free market is extremely competitive and companies are constantly trying to gain an edge over their rivals. Merchandizing and brand image play a major role in attracting customers, but they often lead to over-packaging. This is a serious problem since most packaging these days are made of plastics which are not biodegradable. Some people blame the manufacturers for their blatant disregard, while others point the finger at consumers.

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.

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.

When countries assess their annual carbon dioxide emissions, they count up their cars and power stations, but bushfires 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 2004 and the present summer, the figure has been over 1 million hectares.

The diversity of human language may be compared to the diversity of the natural world. Just as the demise of plant species reduces genetic diversity and deprives humanity of potential medical and biological resources. So extinction of language takes with it a wealth of culture, art, and knowledge.

Solar energy is an excellent source of supplying power to homes and companies and by utilizing solar power you're not merely protecting the environment from becoming polluted but also you are saving the rest of the earth's natural resources. Capturing solar energy does not contribute to any pollution and does not harm the atmosphere. One of the factors why many individuals are still hesitant to make use of solar power is because it is expensive. The need of big location of space is another reason why people aren't taking into consideration solar power.

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.

Never before has the world of journalism been so explosive, so global, and so competitive. Forget hourly news flashes; we live in a world of 24-hour breaking news, with radio and TV stations and Internet news sites updating stories by the minute.

So, as much as this is a book about the experience of traveling – the contemplation of cities that are vast in scale and villages that are as remote and strange as anything Westerners are ever likely to encounter – it is also a book that tries to describe another kind of journey.

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.

For the purposes of argument, culture is divided into material and non-material, and the speaker's aim is to show how they both affect each other. Material developments in tools and technology can affect non-material culture, our customs, and beliefs, and the other way around. Genetics is used as an example as it has changed the way we think about life, but also our beliefs have affected its rate of development.

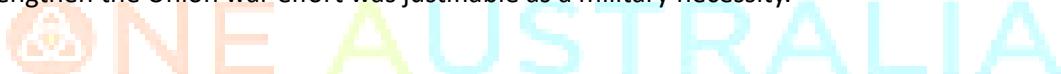
Since Plato, philosophers have described the decision-making process as either rational or emotional: we carefully deliberate or we 'blink' and go with our gut. But as scientists break open the mind's black box with the latest tools of neuroscience, they're discovering that this is not how the mind works. Our best decisions are a finely tuned blend of both feeling and reason, and the precise mix depends on the situation.

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.

The Grand Canyon is 277 miles long, up to 18 miles wide, and attains a depth of over a mile. While the specific geologic processes and timing that formed the Grand Canyon are the subject of debate by geologists, recent evidence suggests the Colorado River established its course through the canyon at least 17 million years ago.

Yellow is considered as the most optimistic color. Yet, surprisingly, people lose their tempers more often in yellow rooms and babies cry more in them. The reason may be that yellow is the hardest color for eyes to take in. So it can be overpowering if overused.

Lincoln's apparently radical change of mind about his war power to emancipate slaves was caused by the escalating scope of war, which convinced him that any measure to weaken the Confederacy and strengthen the Union war effort was justifiable as a military necessity.

The logo for One Australia, featuring the word 'ONE' in orange and 'AUSTRALIA' in blue, with a stylized orange and blue shape above it.

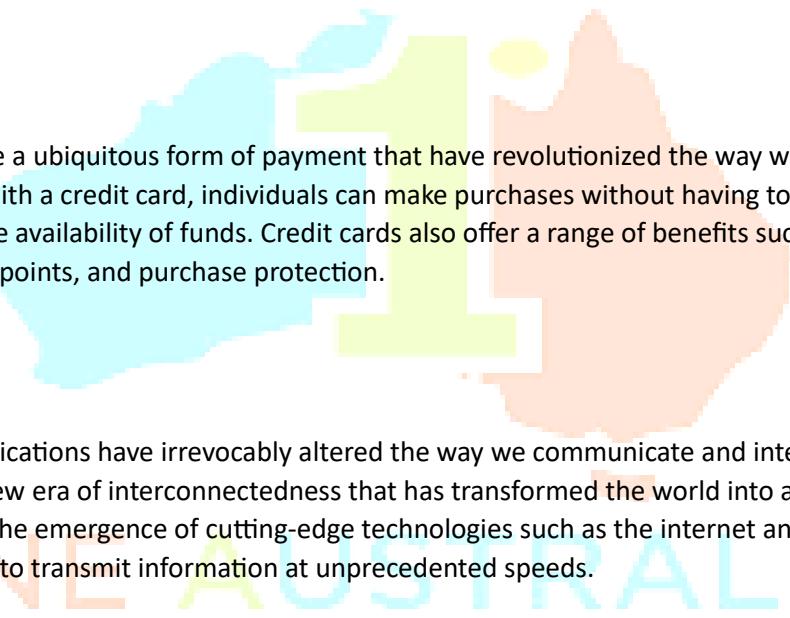
The student's reading in his own subjects slows down, and his comprehension becomes less secure. He expresses himself slowly and often fails to convey his ideas exactly. He is disappointed to find that under pressure he makes a lot of unnecessary mistakes in areas where he knows the correct language forms.

While the Republican field is packed with male candidates, so far, some of the sharpest Clinton critics have come from women. Democrats successfully campaigned on an alleged GOP-perpetrated "war on women" in twenty twelve, but faltered in 2014 when they tried the same tactic. With Hillary Clinton as the likely Democratic nominee, the fight for women voters will be a central part of the twenty sixteen campaign.

A university is a lot more than just classes and exams. University is a concept that offers you a host of possibilities to develop both academically and personally. Find out about the different projects, clubs, and societies that are in your university. You will definitely find something you are interested in.

Significant progress has been made towards achieving photochemical up conversion in a solid state, bringing us one step closer to realizing a breakthrough in various fields such as renewable energy, water purification, and advanced healthcare. This groundbreaking technique holds the potential to unlock vital innovations that can revolutionize the way we harness and utilize energy.

Pollution reduction is a pressing issue that requires immediate attention. The increase in greenhouse gas emissions and other pollutants has led to a range of environmental problems, including global warming, air pollution, and water contamination. To address this issue, it is essential to take a proactive approach towards pollution reduction.



Credit Cards are a ubiquitous form of payment that have revolutionized the way we conduct transactions. With a credit card, individuals can make purchases without having to carry cash or worry about the availability of funds. Credit cards also offer a range of benefits such as cashback rewards, travel points, and purchase protection.

Faster communications have irrevocably altered the way we communicate and interact with others, ushering in a new era of interconnectedness that has transformed the world into an interconnected global village. The emergence of cutting-edge technologies such as the internet and mobile devices has enabled us to transmit information at unprecedented speeds.

Scientists find that the 'feel good' brain chemical dopamine regulates anxious worm behavior in the presence of nipping predators. The findings illuminate how this dopamine-regulated brain pathway may be related to anxiety and could provide insight into human conditions such as post-traumatic stress disorder (PTSD).

Severe inflammation in early childhood is a clinically known risk factor for developing autism and schizophrenia. Now, for the first time, scientists from the University of Maryland School of Medicine (UMSOM) have discovered that inflammation alters the development of vulnerable brain cells, and this could have mechanistic links to neurodevelopmental disorders.

Significant progress has been made towards achieving photochemical upconversion in a solid state, bringing us one step closer to realizing a breakthrough in various fields such as renewable energy, water purification, and advanced healthcare. This groundbreaking technique holds the potential to unlock vital innovations that can revolutionize the way we harness and utilize energy.

Recent research suggests that adult fragments of a coral species exhibit improved tolerance to bleaching and a faster recovery when exposed to symbionts that have evolved to withstand higher temperatures. Interestingly, the study also found that the treatment with these heat-evolved symbionts did not negatively impact the coral's growth.

Based on a recent study, it is believed that the initial louse species to inhabit a mammalian host originally evolved as parasites of birds. This transition, which occurred tens of millions of years ago, marked the beginning of the enduring relationship between mammals and lice. This coevolutionary process provided ample opportunities for lice to expand their presence to other mammalian species.

Due to the growing urgency of the climate crisis, there has been a significant increase in the establishment of commercial tree plantations as a means to counterbalance excessive carbon emissions. However, experts argue that these carbon-offset plantations may have negative impacts on biodiversity and other vital functions of ecosystems.



Researchers conducting experiments with a novel technique for sequencing individual cells have made a surprising discovery that challenges our existing knowledge of genetic rules. By examining the genome of a protist, they have identified a distinctive deviation in the DNA code that marks the end of a gene.

A recent study by Western researchers found that when animals produce sounds while sitting on the ground, like the chirping of crickets, their volume and range can increase by up to ten times. This discovery challenges the conventional belief in the field of animal communication that the ground impedes sound transmission.

A long-beaked echidna named after Sir David Attenborough and last seen by scientists in 1961 has been photographed for the first time in an Indonesian tropical forest. An international team of researchers worked with local communities to deploy over 80 camera traps to film the elusive animal. Besides rediscovering the echidna, the team uncovered a wealth of species completely new to science.

The pungent and flavorful taste of ginger makes it a popular ingredient in many cuisines. It is also known for its medicinal properties, such as aiding digestion and reducing inflammation. However, the cultivation of ginger is a labor-intensive process that requires careful attention to soil quality, temperature, and humidity. Despite these challenges, ginger remains a highly sought-after spice around the world.



Young people spend an average of six hours a day online, primarily using their smartphones, according to new research. Older people (those 24 years and older) spend 4.6 hours online. This research highlights the significant impact of digital technology on our daily lives and underscores the need for continued exploration of how we can balance our online and offline activities for optimal well-being.

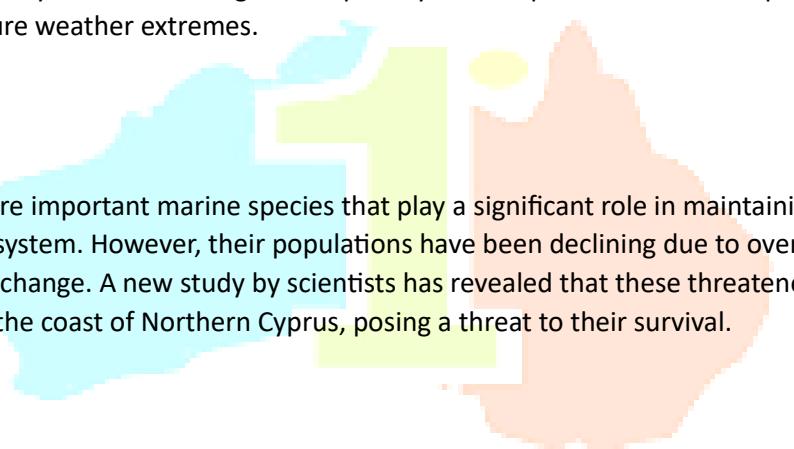
Researchers have used fossil evidence to engineer a soft robotic replica of pleurocystitids, a marine organism that existed nearly 450 million years ago and is believed to be one of the first echinoderms capable of movement using a muscular stem. This groundbreaking achievement in soft robotics provides insights into the ancient marine organism's locomotion.

Similar to how chatbots may sometimes generate false information or fabricate responses, machine learning models developed for scientific purposes can also produce misleading or inaccurate results. However, researchers have recently introduced a novel statistical method that enables the safe utilization of AI predictions to evaluate scientific hypotheses.

Scientists have developed a process that removes CO₂ from coal-burning power plant emissions in a way that is similar to how soda lime works in scuba diving rebreathers. Their research offers an alternative but simpler strategy for carbon capture and requires 24 percent less energy than industrial benchmark solutions.

A team of researchers has developed a custom-built 'data-to-music' algorithm that can transform digital data into sound, making it easier to comprehend and analyze. The use of sound to represent data has the potential to revolutionize the way we interpret and understand complex information, particularly in fields such as science, medicine, and engineering.

Researchers have investigated how changes in urban land and population will affect future populations' exposures to weather extremes under climate conditions at the end of the 21st century. They used a data-driven model to predict how urban areas across the country will grow by 2100, and found that how a city is laid out or organized spatially has the potential to reduce population exposures to future weather extremes.



Sharks and rays are important marine species that play a significant role in maintaining the balance of the ocean ecosystem. However, their populations have been declining due to overfishing, habitat loss, and climate change. A new study by scientists has revealed that these threatened species are being caught off the coast of Northern Cyprus, posing a threat to their survival.

Hummingbirds are highly maneuverable fliers, flitting forward and backward as they home in on flowers. But in the dense foliage many inhabit, they often encounter gaps that are too narrow for their wingspan. Since they can't bend their wings in flight, how do they get through? Researchers used high-speed cameras to capture their movements, discovering two unique strategies.

Space exploration has captivated human imagination for centuries, offering glimpses into the mysteries of the universe and inspiring scientific innovation. However, space exploration also raises ethical questions about its cost, safety, and impact on Earth's environment. As we continue to explore space, it is important to balance our curiosity with responsible practices that prioritize safety and sustainability.

To observe the rare lunar events on Wednesday night, find a location with an unobstructed view of the sky. The optimal time to view the super blue moon is just after sunset when it is on the horizon and takes on a deep orange color. Binoculars or a telescope can enhance the viewing experience. Don't miss this chance to witness a rare and awe-inspiring display of celestial beauty.

While extracurricular activities can be enriching, it is important to balance them with academic responsibilities. Students should prioritize their coursework and ensure that they have enough time to study and complete assignments. Effective time management skills are crucial for balancing academics and extracurriculars successfully.

Green is a refreshing and rejuvenating color that is often associated with nature and growth. It has a calming effect and can promote feelings of balance and harmony. Green is also believed to have healing properties, making it a popular choice for healthcare settings. Its soothing effects make it an ideal color for relaxation spaces like living rooms and bedrooms.

The financial pressure associated with marriage can be daunting, but with careful planning and communication, couples can navigate these burdens successfully. Prioritizing financial stability, setting a realistic budget for wedding expenses, and making informed decisions about housing options can help alleviate some of the financial stress.

Regardless of whether parents are perceived as strict or lenient, their upbringing style can have a significant impact on their children's personal development. Strict parenting may promote discipline and structure, while lenient parenting may foster creativity and independence. It is essential to recognize the potential impact of upbringing on children and strive to create a nurturing environment that supports their growth.

While opponents view beauty pageants as symbols of decline, others argue that they can be platforms for empowerment and self-expression. Supporters highlight the opportunities these contests provide for personal growth, public speaking, and community involvement. It is essential to foster a dialogue that explores the potential positive aspects of beauty pageants while addressing concerns about objectification.

Online shopping environments offer unique advantages that traditional brick-and-mortar stores cannot match. One of the most significant benefits is the ability to create highly interactive retail

interfaces that can be customized to individual preferences. This level of personalization can enhance the shopping experience and improve customer satisfaction.

Research published in the journal of Neuroscience suggests that happy sounds, such as laughter, are infectious. When people hear these sounds, their brains activate the premotor cortical region, which prepares facial muscles to move. This may explain why laughter and other happy sounds can spread so easily from person to person.

As technology continues to evolve, so too will telecommunication. The development of 5G networks, the Internet of Things (IoT), and other emerging technologies promise to transform the way we communicate and interact with each other. The future of telecommunication is full of exciting possibilities and endless potential.

As advancements continue to be made in neuromorphic computing, the integration of targeted magnetic waves and other innovative techniques holds promise for creating more efficient and powerful AI systems. These developments could revolutionize various fields, including robotics, image recognition, and natural language processing. The future of neuromorphic computing is bright and full of exciting possibilities.

ONE AUSTRALIA

Smiling is a universal sign of happiness and positivity, but did you know that it also has a physiological effect on the body? When you smile, your brain releases endorphins, which are natural painkillers and mood boosters. This may be why smiling is so contagious and can have a positive impact on those around you.

A potentially more sustainable choice in rice cultivation could be the development of a new rice breed that combines the traits of an annual Asian rice variety and a perennial African rice variety. This hybrid rice has demonstrated impressive performance, producing grain continuously for eight consecutive harvests over a span of four years.

The world around us can pose a danger, especially as travel and recreational activities become more common. This means that people are now at a greater risk of encountering life-threatening

situations. While the human body can adapt to some degree, it is not equipped to handle toxins or long-term exposure to extreme environmental conditions.

Artistic expression has been a powerful form of communication throughout history. From the Romantic movement to the present day, artists have sought to convey emotions and connect with their audience. Whether through visual art, music, or performance, artists aim to evoke a range of responses, from joy and inspiration to introspection and contemplation.

Cultural identity is shaped by a variety of factors, including social norms and values. To maintain cultural integrity and function, members must conform to these norms and values. However, conformity can also limit individual expression and creativity. Balancing cultural conformity with personal identity and autonomy is a complex process that requires ongoing negotiation and reflection.

In multigenerational households, cultural engagement can be influenced by the diverse interests and preferences of family members. For example, grandparents may introduce their grandchildren to traditional cultural activities, while younger family members may introduce older adults to new forms of cultural expression. The dynamic interplay between generations within a household can create unique opportunities for shared cultural experiences.

ONE AUSTRALIA

Positive parenting practices have been linked to improved child outcomes in a range of areas, including academic achievement, mental health, and social skills. Positive parenting involves establishing clear rules and boundaries, providing emotional support and encouragement, and fostering open communication with children.

Public art has the power to transform communities and enhance economic stability. Art installations, murals, and sculptures can attract tourists and visitors, creating a vibrant and culturally rich atmosphere. Additionally, public art can increase foot traffic in commercial areas, leading to increased sales for local businesses.



REPEAT SENTENCE

ONE AUSTRALIA

We have been trained to investigate how cultural systems matter in this situation.

They're discussing the most efficient strategy to manage the risks facing the business.

You will get a broad foundation in the technology of machine systems.

Improving the quality of air and water is important to human beings.

There is widespread concern that new houses will be built on protected land.

Animal science can be applied to a wide variety of careers and industries.

For many years, the schools attempted to neutralize controversies over race.

Schools have to play their full part in promoting the welfare of children.

This summer program has been illustrated with many photographs of activities.

A team of teachers is trying to come up with an innovative curriculum.

In order to achieve the educational goals, tutors often have to encourage students.

In Canada, children prefer to go to public schools instead of private ones.

All faculty members contribute to the discovery and dissemination of new knowledge.

There are lots of opportunities to meet people in this course.

The bus right out in the front will take you to the station.

This is a practical and comprehensive guide to planning and developing a curriculum.

This textbook teaches data science and machine learning methods for control of complex systems.

In the plant, skilled workers who perform key jobs form into groups.

People form into teams to achieve goals which are beyond the reach of an individual.

Students who have completed a placement are more likely to obtain a good job.

The bus line was established to determine the effect of improved public transportation.

An inquiry was set up to determine the cause of the accident.

He learnt to play the piano at an early age.

Air pollution in our country has risen above an acceptable level.

There is no compelling reason for me to believe him.

The equipment is able to sense the presence of toxic gases.

The Prime Minister is understood to have been extremely angry about the report.

There was a notice on the board saying the class had been cancelled.

I perceived a change in his behaviour over those months.

This leaflet is produced for the information of our customers.

She taught me to be less critical of other people.

She was making a play for the sales manager's job.

It sounds as if they might have made a dreadful mistake.

We have booked a famous band for our wedding reception.

They have fostered a hundred children during the past ten years.

If your pharmacy doesn't stock the product you want, let them order it for you.

Parking lot owners should be legally responsible for protecting vehicles.

He asked his daughter what she would like for her birthday.

The designer will be unveiling her latest fashions for autumn and winter.

Stretching exercises can help you avoid injury and improve your performance.

The government has been committed to housing the homeless people.

The most serious cases were treated at the scene of the accident.

He refused to comment before he had seen all the relevant information.

In case of fire, always remember to ring the alarm bell immediately.

In no sense can the issue be said to be resolved.

The study of data communications is concerned with the form of data as it's communicated.

They had been forced to find cheap tickets in the gallery.

These pioneers have transformed clinical medicine from an art to a science.

We spend the time presenting the information in a variety of chart forms.

Levels of pollution present in the atmosphere are increasing, which is rather concerning.

Please check that these details are correct before submitting the sheet.

The eyesight can be corrected in minutes by the use of a laser.

The organisms were forced to adapt in order to survive.

The young professor amazed us by his knowledge of history.

We all hope that this film will be a commercial success.

We have already succeeded in working out ground rules with the department.

The fund shortage put him and his colleagues in a difficult situation.

Shelves were built to adapt the library for use as an office.

Their early success was succeeded by a period of miserable failure.

The company is now well positioned to compete in foreign markets.

She possessed the skills and qualities needed to succeed in a business.

Many of her novels regarding female mental health have been adapted for television.

The airport is being privately funded by a construction group.

Her new job as a technician does not start until May.

The map shows the distribution of this species across the world.

This global issue will be discussed in more detail in the next chapter.

She went into the kitchen in search of a soft drink.

He came across this story while he was searching local news articles.

Our beach house is just a couple of miles from the ocean.

The ability to get straight to the core of a problem is very important.

The new manager brings a great wealth of experience to the job.

It has snowed almost every day for the past week.

Our research group needs to find sponsorships for the expedition.

There have been many complaints from members of the public.

They are now under a great deal of pressure to tighten their airport security.

You should include some examples in your essay to get a high mark.

Your duties mainly include typing letters and answering the telephone.

Basic human rights, including freedom of speech, are now guaranteed.

He had worked in the theatre for many years, starting at the bottom.

The manufacturer's name is on the bottom of the plate.

He used to work at night and sleep during the day.

The public has a right to know what is contained in the report.

There was a stream at the bottom of the garden.

She used her family's history as a base for her novel.

This system has imposed additional financial burdens on many people.

We offer many express delivery options for a small additional charge.

They opened a new store in Europe to test out the market.

The local elections will be a good test of the government's popularity.

A visit to the museum will take you back in time to the last century.

Children today are brought up on a diet of television cartoons and soap operas.

The medicines you are currently taking could be affecting your balance.

The government has to find some way to balance these two needs.

The time has come for action if these animals are to survive.

He built up the business over a period of ten years.

The young girl is very knowledgeable about plants diseases and the causes.

Many patients are not getting the medical treatment that they need.

The government is taking emergency action to deal with a housing crisis.

Her designer clothes were from the pages of a fashion magazine.

He balanced his budgets by rigid control over public expenditure.

Our university has organized a visit to the tallest building in the world.

The workman expects to lose his job in the next few weeks.

Statistics indicate that depressed patients are more likely to become ill than others.

Social events and training days are arranged for all the staff.

The history department is part of the College of Arts and Sciences.

It is generally accepted that people are motivated by success.

Has he been boring you with his stories about his trip?

She was disappointed not to be accepted into the netball club.

You can't expect to learn a foreign language in a few months.

Two leading law firms are to prepare legal actions against tobacco companies.

His lack of experience was balanced by a willingness to learn.

They appointed a new manager to coordinate the work of the team.

He seemed to take it for granted that he should speak as a representative.

It would be better to transport the goods by rail rather than by road.

Most of our employees get posted abroad at some certain stages.

A copy of the letter was posted on the noticeboard.

The new policy shifted the emphasis away from fighting inflation.

She ate her sandwich alongside several other office workers taking their break.

The staff should make sure the kids have an enjoyable and educational day.

The content of the course depends on what the students would like to study.

He has been awarded a research grant because of his excellent work.

He tried to shift the blame for his mistakes onto his colleagues.

He is a hard worker and a skilled gardener who is about to retire.

They were living well, in comparison with people elsewhere in the world.

For the past three years they have been leading totally separate lives.

He made the joke on purpose, knowing it would annoy her.

Business bank accounts were being kept separate from personal ones.

He has failed to win a seat on the board of the company.

We need to develop a coordinated approach to the problem.

I was granted permission to visit the palace last week.

A high wall separated our back yard from the playing field.

The cell is the unit of which all living organisms are composed.

A vibrant and growing economy does not improve everyone's quality of life.

Students are asked to circle the words on this list that they recognize.

Please remain seated until the aircraft has come to a halt.

These seafront amusements have been attracting visitors from big cities.

Agriculture was based on the family as a unit in the past.

In the course of my everyday life, I had very little contact with teenagers.

Fire has caused severe damage to the contents of the building.

The company has every intention of keeping the share price high.

An important factor that separates ordinary photographs from good ones is the lighting.

It's possible that in the course of time a cure for cancer will be found.

People who live near airports tend to suffer from noise.

When you have finished typing, remember to save your document.

I wanted to work somewhere where I could serve the community.

The forest has provided nesting places for a wide variety of birds.

He lives quietly in the country in a village near the sea.

Readers have been invited to write in with their comments.

This is a new system for assessing personal tax bills.

He left England with the intention of traveling in Africa.

The judge said the punishment would serve as a warning to others.

As the project progresses, a written document will become very useful.

This could mean the closure of thousands of small businesses.

The economy should be organized to serve the interests of all the people.

The price of oil should remain stable for the rest of the year.

The report mentions that this company has overspent on marketing.

You have to wait until the drugs have passed out of your system.

He was suffering from exposure and shock but his condition was said to be stable.

Marketing is applied to everything these days, and books are no exception.

There are no restrictions on the amount of money you can withdraw.

They had faced one difficulty after another with great determination.

The object is to gather as great a diversity of genetic material as possible.

The trip promises to be a great mixture of the ancient and modern.

He hoped they would not feel disappointed if they were not invited.

The company didn't disclose how much it expects to gain from the deal.

The signal will be converted into digital code by the computer.

Economic recovery can't be sustained unless more jobs are created.

The teaching of history should not be limited to dates and figures.

The company plans to sponsor television programs as part of its marketing strategy.

Scientists use genetic engineering to protect tomatoes against the effects of freezing.

They were very curious about the people who lived upstairs.

The program affords young people the chance to gain work experience.

A radio signal normally has both electrical and magnetic properties.

I wrote to them last month and I'm still waiting for a reply.

The officer was suffering from stress brought on by overwork.

The amount of money you have to spend will limit your choice.

Please bring back all library books by the end of the week.

The higher rates have been a hindrance to economic recovery.

The marketing department has always played a subsidiary role to the sales department.

Many students have insufficient science background to gain entrance to engineering school.

The company saw the visit as an important signal of financial support.

You can gain entry to the club only through a member.

The man has been fighting his addiction to alcohol for months.

Hunger is the body's signal that levels of blood sugar are too low.

Most schools are unwilling to cut down on staff in order to cut costs.

Her house was only a few doors down from her daughter's apartment.

The government took another step on the road to political reform.

The relation between national health and social care services is very important.

I have established a good working relationship with my boss.

She cut across the parking lot and strolled through the main entrance.

Trainees should be invited to relate new ideas to their past experiences.

Thousands of people paid good money to watch the band perform.

Studies have indicated that there is a relationship between diet and cancer.

In the future, pay increases will be related to productivity.

The high price is a major hindrance to potential buyers.

An engine has many parts, each performing a different function.

You'll be able to see the latest fashion and beauty news on this website.

The strike had already led to cuts in electricity and water supplies.

The new model combines a telephone and a fax machine.

They want to bring the new legislation into force before the end of the year.

Some benefits relate directly to the mental health of the teenagers.

All children should be encouraged to realize their full potential.

The two international firms joined forces to win the big contract.

I have not received an acknowledgement of my application yet.

The company has been performing poorly over the past six years.

She has successfully balanced a career and bringing up a family.

We are aware of the potential problems and have taken every precaution.

He had to spend about six months in a class with younger students.

The teacher made me move my seat to the front of the classroom.

New legislation on the sale of drugs will be introduced next year.

It is difficult for young people to find jobs around here.

The whole class were told to stay behind after school.

You have to do well academically to get into medical school.

Suggested by her mother, she will take a diploma in management studies.

The man is probably the best-known painter in the world.

The application for a new business licence has been denied.

Which one actually dictates our future, academic degree or capability?

She has been collecting material for her latest novel for more than a month.

The book provides some valuable information on recent economic trends.

Even my friends often confuse me and my twin sister.

Most countries tend to impose some sort of tax on alcohol and tobacco.

It's a great place for swimming, but beware dangerous currents.

Our future prosperity depends on economic growth to some extent.

The customers are required to rate the extent of their satisfaction.

Students are asked to prepare material in advance of each weekly seminar.

The invention would have a wide range of applications in industry.

This course belongs to the academic degree curriculum of communication postgraduates.

Governments can help reverse this economic trend by offering technical and financial aid.

His comments only made this issue more confusing for us to solve.

Parents should beware of imposing their own interests on their children.

You don't have to tell lies to get people to like you.

In many ways, our social statistics exaggerate the degree of hardship.

This project has liberated industry from dependence on running water.

High-earning parents are more likely to live in a good neighborhood for raising children.

The name was changed to avoid confusion with another firm.

The service works as a software application that is accessed via the internet.

All of our tutors have more than two years of teaching experience.

The diploma should be the same whether distance learning or on-campus study is employed.

Too much dependence on the teachers may lead to lack of motivation.

International tourism has provided many new employment opportunities for travelers.

Our priority is to educate people about the dangers of drugs.

Many modern cities now require their citizens to sort the garbage.

It may be said that the teacher has done his very best to help him.

She had the advantage of a good education over others.

He looked at me in confusion and did not answer the question.

Students learned the practical application of the theory they had learned in the classroom.

The campaign is intended to educate the public to respect the environment.

Eventually, the new regulations will work to our advantage.

Can our industry compete on equal terms with its overseas rivals?

I intend to take full advantage of this trip to buy the things we need.

The program aims to educate and prepare students for a challenging career.

There is some confusion about what the correct procedure should be.

He has been studying classical architecture and design in Rome for decades.

The diploma course would offer remote access to course materials via the Internet.

There is the potential to develop more flexible working practices.

We regret to inform you that your application has not been successful.

Our goods compete in terms of product quality, reliability and variety.

I met him on a flight from London to Paris.

They still haven't had any news about when they'll be able to go home.

I was inspired by the prospect of the new job ahead.

He was at the clinic recovering from an operation on his arm.

The picture shows six of the nine planets in the solar system.

The value of regular exercise should not be underestimated by anyone.

The slim booklets describe a range of services and facilities.

She will talk on the issues she cares passionately about, including education and nursery care.

If a computer user fails to log off, the system is accessible to all.

You still have heaps of time to complete this task before its deadline.

They agglomerated many pieces of research into a single large study.

The medicine always made him feel sleepy and unable to concentrate.

I feel that not enough is being done to protect the local animal life.

Muscular aches and pains can be soothed by a relaxing massage.

The interview only took ten minutes, but it felt like hours.

You have to be able to describe things in a form that users can understand.

The tension between the two countries is likely to remain.

He studies and observes the behavior of babies and has written many articles about it.

Regular servicing can guarantee the smooth operation of the engine.

The job encompasses a wide range of responsibilities, so it is very challenging.

Have you talked to your parents about the problems you're having?

A moderate earthquake struck the United States early on Saturday.

The patients were observed over a period of several months.

We know that dolphins use sound to communicate with each other.

They are collecting information in preparation for the future talk.

Most supermarkets in this country sell a range of organic products.

The free banking system has been in operation since the early eighties.

The prospect of living in a city does not appeal to me.

Most adults require between seven and nine hours of nightly sleep.

Biodiversity is essential for the processes that support all life on Earth, including humans.

History gives us the tools to analyze and explain problems in the past.

Mental health is important at every stage of life, from childhood through adulthood.

A good education not only teaches you skills but also helps you broaden your horizons.

During the childhood development, the importance of education is stronger than ever.

A good education helps you recognize yourself and your strengths.

Researchers have observed that family plays a crucial role in the success of individuals.

Children enjoy a healthy lifestyle when they live in a healthy family.

The temporary library will be closed in the winter break.

The cafeteria is open on Monday and Thursday.

Students can borrow this book for a maximum of one day.

The bibliography needs to be removed prior to the publication.

Eating a healthy breakfast can provide energy throughout the day.

The paper has the potential to transform life science.

Tuesday is the final day for students to submit their assignments without any penalty.

Please note, submission deadlines are only negotiable in exceptional circumstances.

Students who study overseas can significantly improve work chances.

Sleep is believed to play a critical role in storing memories.

The college operates on a system of continuous assessments.

Students' papers should be about a current social issue.

The key findings seem to contradict our initial hypothesis.

All laboratory equipment will be provided in class.

Scientists have found all parts of science.

Key aspects of this investigative paradigm may prove useful in other spheres.

It's a great privilege to welcome our guest speaker to our college.

Animal behavior appears to contain both similar and distinct aspects to that of humans.

There is a fitness center next to the student union.

What's going on can help patients leave their fears at the door.

The professor plans to discuss issues in the news that reflect concepts taught in class.

I have lectures on Tuesday from nine o'clock until two o'clock.

Speaking one or more foreign languages will be useful in your career.

One of the first mass transit systems was located in France.

All the works you consult need to be mentioned in the bibliography.

Graduates from this course generally find jobs in the insurance industry.

The support and advice of lecturers within the department has been invaluable.

At the end of the day, people want to profit from return on their investment.

A balanced diet will help you study more effectively.

Our capacity to serve the community is a vital part of our role.

The university hosts a wide range of events both on and off campus.

I think that to raise the issue and to talk about it is great.

This will be the first art exhibition to be held by the university.

The assessment of this course will begin next week.

Tomorrow's lecture has been cancelled due to the power cut.

The seminar will include speakers willing to share their experiences of marketing.

At the university he made rapid progress, especially in the study of history.

The teacher asked the students to check their answers before handing in their homework.

He entered the password correctly and was able to log in to the system.

He plans to get a degree in economics and then work abroad for a year.

Professors at the university teach many different courses including biology and geography.

A tutor is a teacher that usually specializes in one particular subject.

The teacher asked the students to check their work for any errors.

She has picked only one elective for the next semester.

A liberal arts curriculum can be very broad and diverse.

The academic magazine was full of tips for both teachers and students.

A long disquisition can take students several months to complete.

He filled out the form correctly and submitted it for review.

The students were worried that they would fail in the final exam.

In the history curriculum, the class will be studying Egyptian culture.

Academic funds can only be spent on purchasing things for the classroom.

She has failed to complete her degree in international business.

I will check the map to make sure we are going the right way.

Each library assistant was given a specific section of the library to distribute books.

The professor ran over her notes before giving the lecture.

The new system is the focus of controversy among the public.

Several universities in our city have rigid rules about student conduct.

Banks will check your identification before allowing you to withdraw money.

The money was distributed among schools in this rural area.

An office assistant is to help the attorney organize all of his case files.

His lecture was illustrated with slides taken during an expedition.

Each student has been given their own email address by the school.

He performed the experiment correctly and has obtained accurate results.

College homework has been demanding for most of the students.

He shared his own way to quickly adjust to college life.

He developed his own program in partnership with an American expert.

There is a need to sharpen the focus of this discussion.

The waiter answered the customer's question patiently and provided helpful information.

Students had to choose one elective from the choices of art, music and computers.

The team carried out a thorough inspection of the project.

It takes a lot of practice to master a foreign language.

The system is able to run more than one program at the same time.

The cost of attending a private university is unaffordable for some students.

Each student can determine their own pace in this class.

In today's lecture the focus will be on tax structures within the European Union.

The nursing assistant was in charge of getting the tool for the doctor.

The organization has distributed food to the families in need.

Each student at the university has a guide that helps them select their classes.

The teacher imparted his knowledge of social relationship onto his students.

I need to find a tutor to help me with my science studies.

To be accepted to the university, you must have passed certain tests.

The doctor will check your blood pressure to see if it is normal.

He went to the university as a student of philosophy last year.

Today we have a guest speaker who is visiting from Canada.

You must read every single page in this book and study it carefully.

You will need a great deal of money to purchase the valuable painting.

The teacher tried to gain her student's attention by clapping her hands loudly.

The student deserves a prize for his good behaviour at school.

She went to the mall to buy a new dress for her interview.

She went to the mall to buy a new dress for her interview.

The company doesn't typically hire people with no work experience.

We went to the store to look for cosmic books for our children.

The rules at this middle school had been very strict.

The rules at this middle school had been very strict.

A university is an educational institution aiming to provide academic knowledge.

Technically you can use many methods to solve these math problems.

Your studies will be guided by your own interests at our university.

The team is developing original projects with new ideas and inspirations.

Our university has campuses in the three distinct regions of Texas.

Our support services include health and wellbeing and career guidance.

This new platform makes it easy to get the information you need.

These services are available for those experiencing academic concerns.

The university can help connect you to local cultural groups and organizations.

Getting involved in volunteering opportunities helps to develop your leadership skills.

We believe that finances should never be a barrier to university.

You can apply for multiple scholarships in one simple application.

We provide a number of services to ensure a good experience for our students.

These new laboratories enhance the ability of researchers to make new discoveries.

Our degree is built to prepare you for your career at sea.

This course introduces you to the study of teaching as a profession.

Our business is built on the network of alumni, friends and partners.

The project modules are specified as modules of the control system.

The famous professor is now illustrating the theory of financial accounting.

This dissertation is an extended piece of research on a topic of your interest.

There are opportunities for you to go abroad as part of your undergraduate studies.

The analytical and communication skills are essential to accounting and finance.

Our university has set a minimum English Language proficiency level.

We are constantly seeking competitive advantages that allow us to make more profits.

Getting career advice while you're at university eases the transition from study to work.

We have a range of on-campus accommodation available to students.

These professionals will offer you the opportunity to discuss issues with them.

The Museum has been awarded a grant by the Humanities Research Council.

Our collections are available digitally in a number of ways.

There is no requirement for attendance in this research course.

You will be able to develop your literacy skills through this project.

You will have the flexibility to choose your own path as a marine engineer.

We offer many programs and resources to help you thrive at university.

You have to tackle a range of challenging problems by yourself.

This institution was built to help people with psychological illnesses.

Some claim that chocolate can reduce your chance of a heart attack.

A hypothesis is the first step before an idea becomes a theory.

A letter was sent out to inform clients about the change in service prices.

Unfortunately, she didn't have enough money to buy the car she wanted.

Almost all of the students want to acquire the academic award.

The chemistry building is located near the entrance of the campus.

By logging in, you agree to all terms and conditions regarding your enrollment.

Compiling a bibliography can present a major challenge for some students.

Please read the article that was given out yesterday.

Please make sure you use the standard form of quotation.

Living in the twenty first century is increasingly stressful.

Renewable energy sources are now used to produce electricity.

We have specially assigned staff to help you find appropriate work placements.

If you are worried about your work, you should see a study counselor.

Most of the student advisors are extremely helpful.

There are many different religions across the world.

The energy that we absorb from food can help us prevent the cold and become warmer.

The campus has many buildings, including classrooms, dorms, and offices.

The cafeteria serves breakfast, lunch, and dinner every day of the week.

Students can borrow books and other materials from the library for free.

The concept of sustainable development is crucial for future prosperity.

The student government organizes events and advocates for student interests.

The university's research facilities are among the best in the country.

Income inequality is a major challenge facing many societies today.

The campus is located in a bustling urban area.

The campus bookstore sells textbooks and school supplies to students.

The university's football team has won several national championships.

Small businesses play an important role in local communities.

The university's MBA program is ranked among the top in the world.

The university's online courses provide flexible learning options for students.

The history of our society is complex and fascinating.

The campus gym has state-of-the-art exercise equipment.

The business school offers internships and networking opportunities.

The university has a diverse student body from around the world.

Social justice is an important topic in today's society.

The campus dining hall serves a variety of healthy meals.

The university offers scholarships to help students with financial need.

The economics department studies the production and distribution of goods and services.

The campus art museum features work from renowned artists around the world.

The university's career center provides resources for job searching and career development.

Climate change is a pressing issue facing our society today.

Campus life can be challenging, but it is also an exciting time of growth.

The university offers a wide range of programs to suit different interests.

Social media has changed the way we communicate and connect with others.

The business world is constantly evolving, and staying up-to-date is essential.

Climate change is a pressing issue that requires global cooperation and action.

Learning a second language can open up new opportunities and perspectives.

Mental health awareness is essential for promoting well-being and reducing stigma.

Volunteer work can be a rewarding way to give back to the community.

Technology has transformed the way we work, learn, and communicate.

The healthcare industry is facing numerous challenges, including rising costs and access issues.

Education is a powerful tool for promoting social mobility and economic opportunity.

Urbanization is a global trend that presents both opportunities and challenges.

The media plays a critical role in shaping public opinion.

Diversity and inclusion are essential for creating strong and resilient communities.

The fashion industry has a significant impact on the environment.

Renewable energy sources are becoming increasingly important for reducing carbon emissions.

Immigration policy is a complex issue that requires careful consideration.

The food industry is facing numerous challenges related to health.

Online learning has become increasingly popular in recent years.

Time management is essential for balancing academics and extracurricular activities.

The campus library is a valuable resource for research and studying.

Mental health resources are available for students who need support.

The study abroad program allows students to experience new cultures and perspectives.

The dining hall provides a variety of meal options for students with different dietary needs.

Campus safety is a top priority for universities across the country.

The result of the experiment indicates that further research is needed.

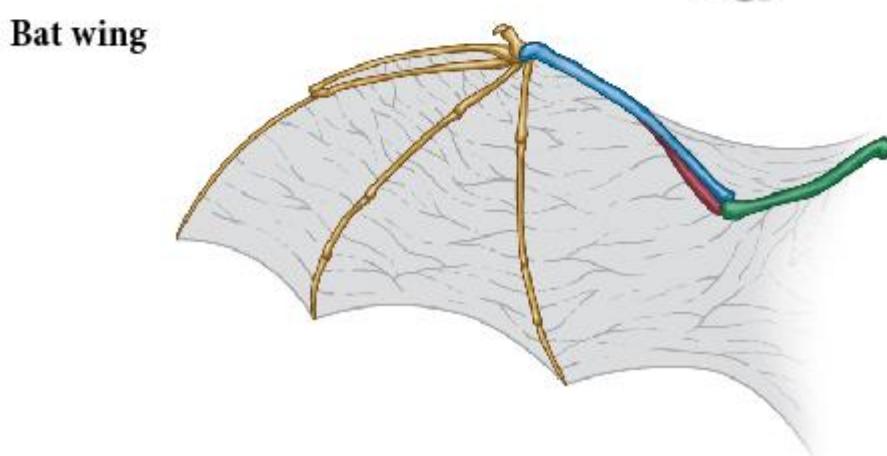
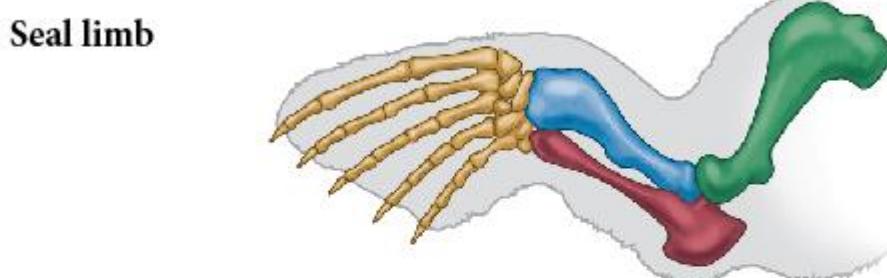
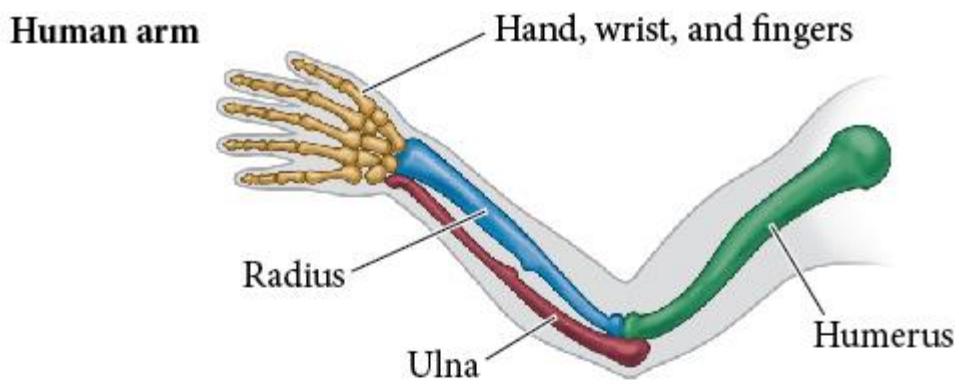
The study demonstrates a need for further research in this field.





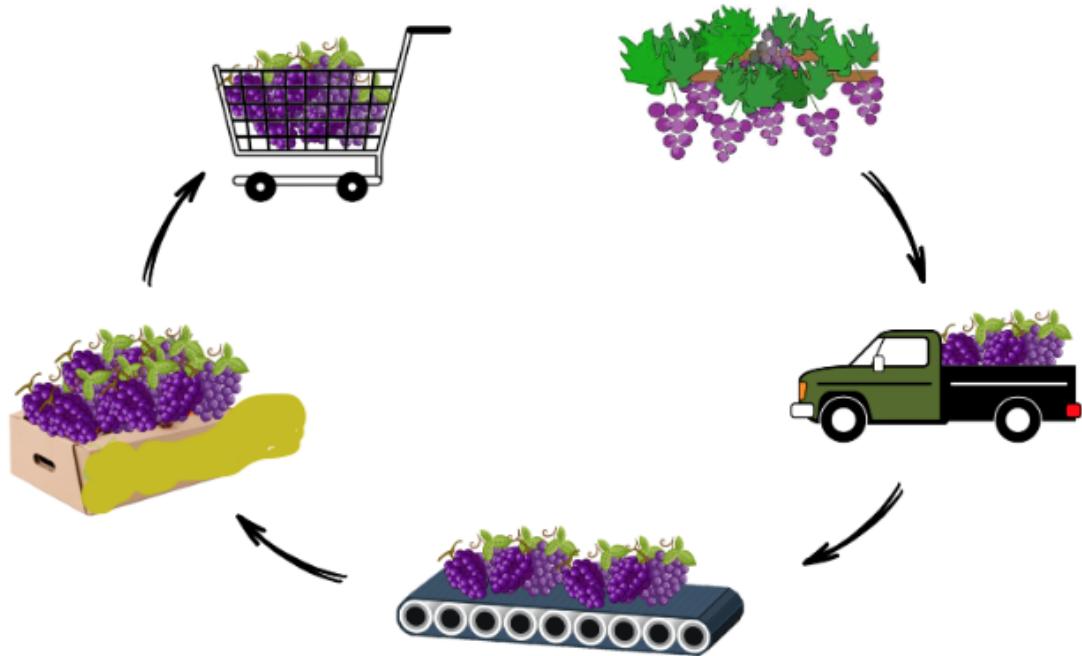
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Fruits



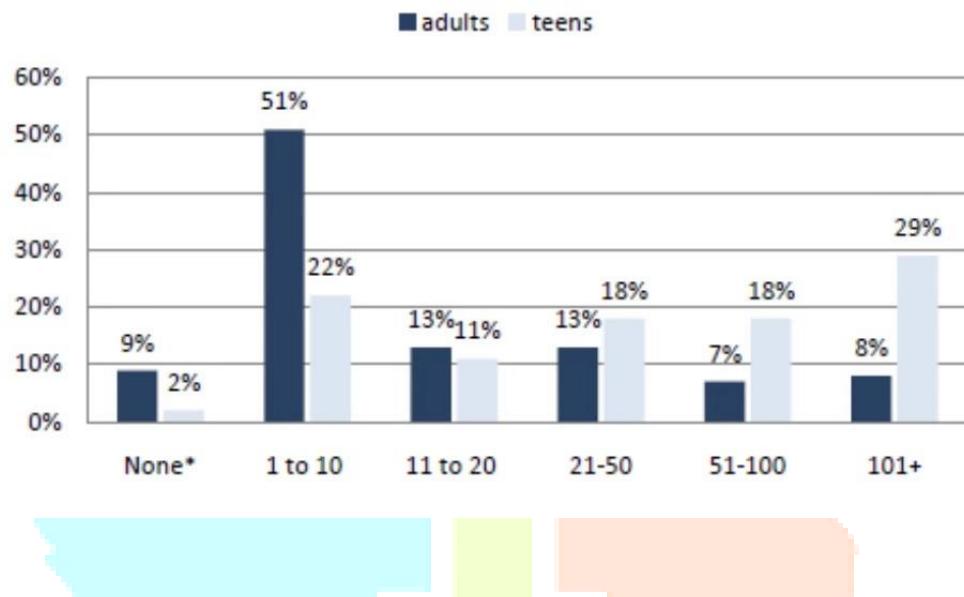
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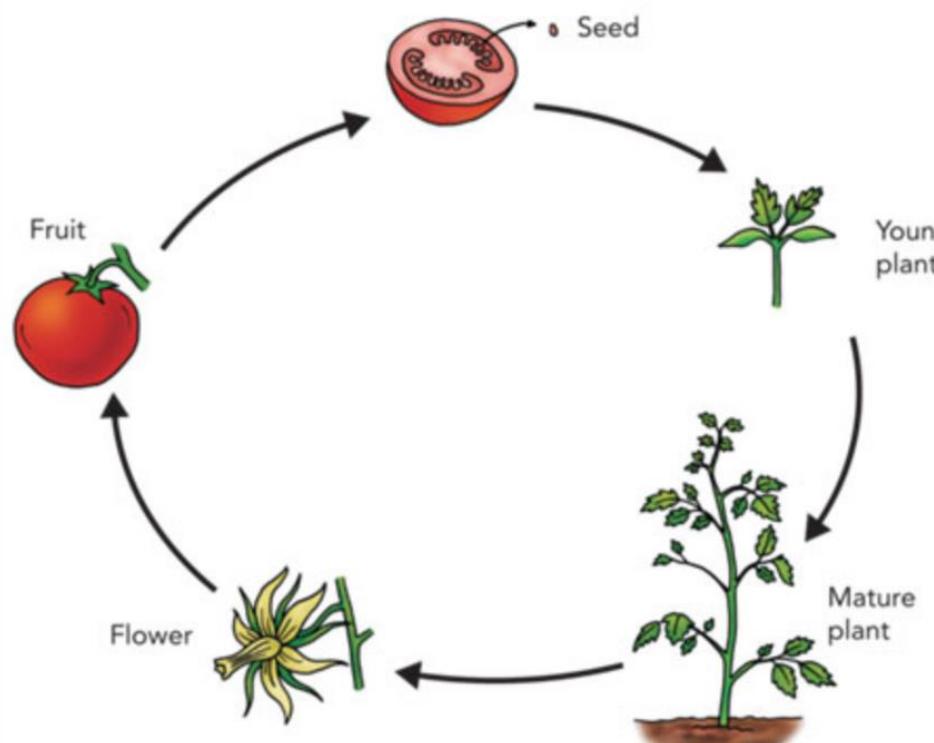
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Adults vs. Teens: Number of texts on a typical day

Based on cell phone users who text



The Life Cycle of a Tomato





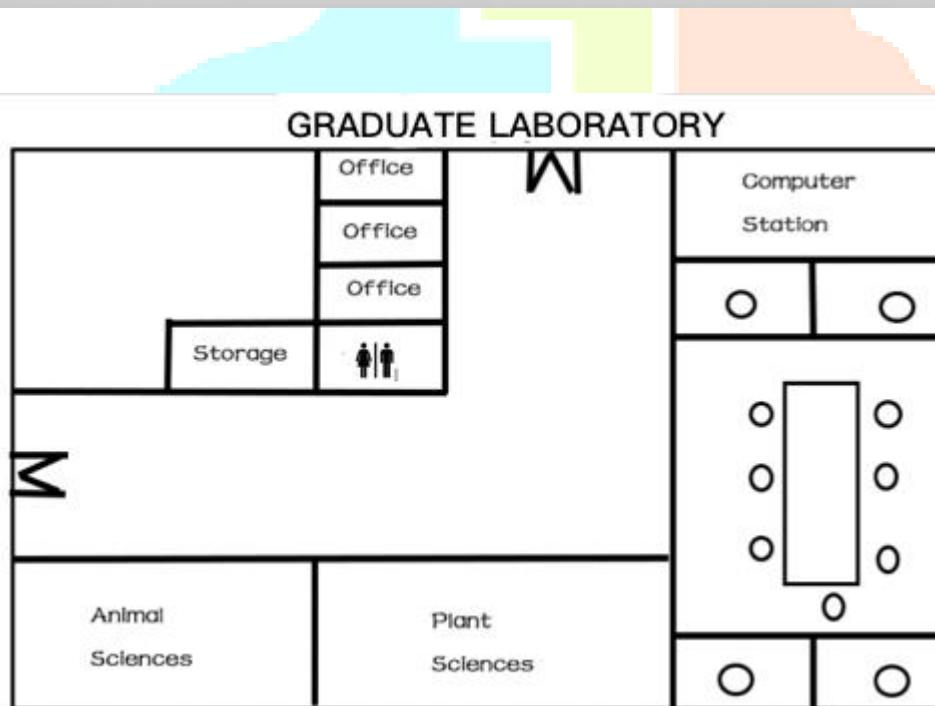
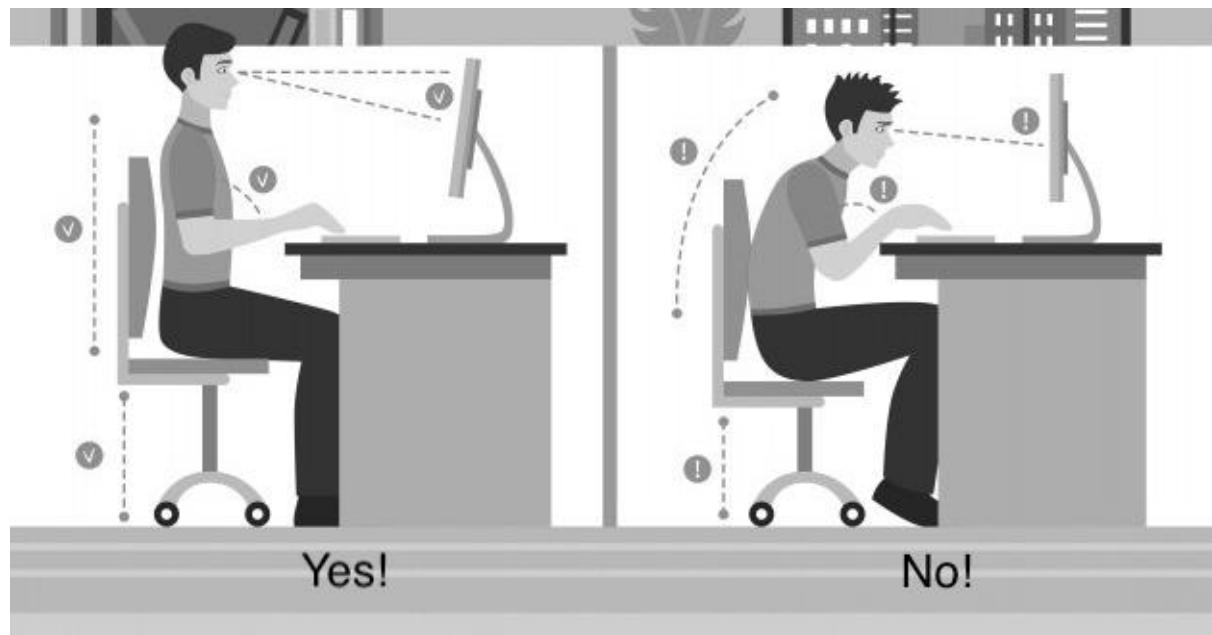
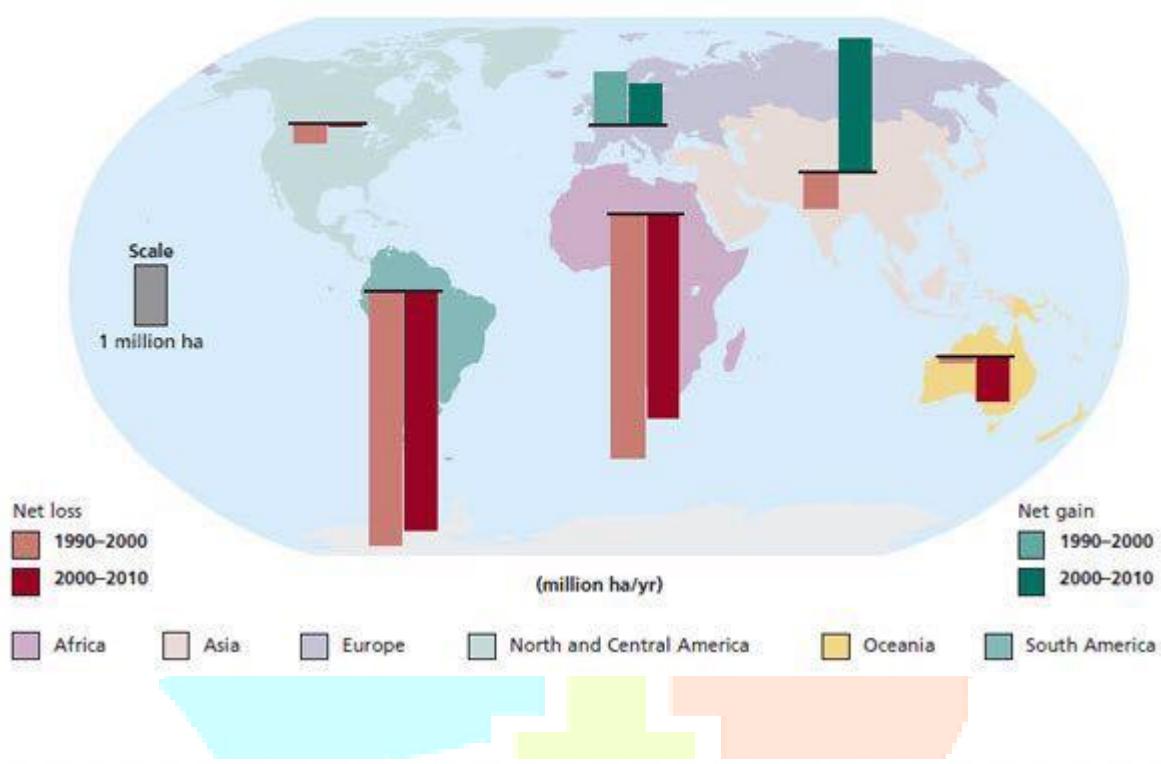
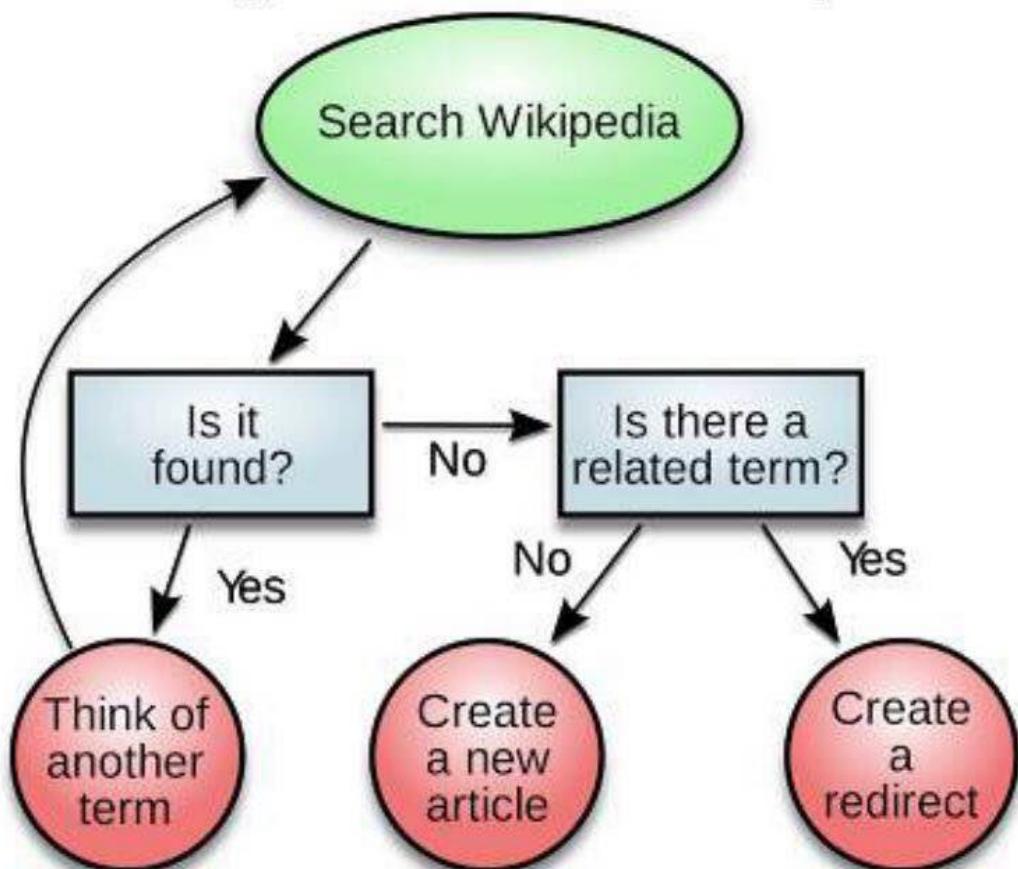


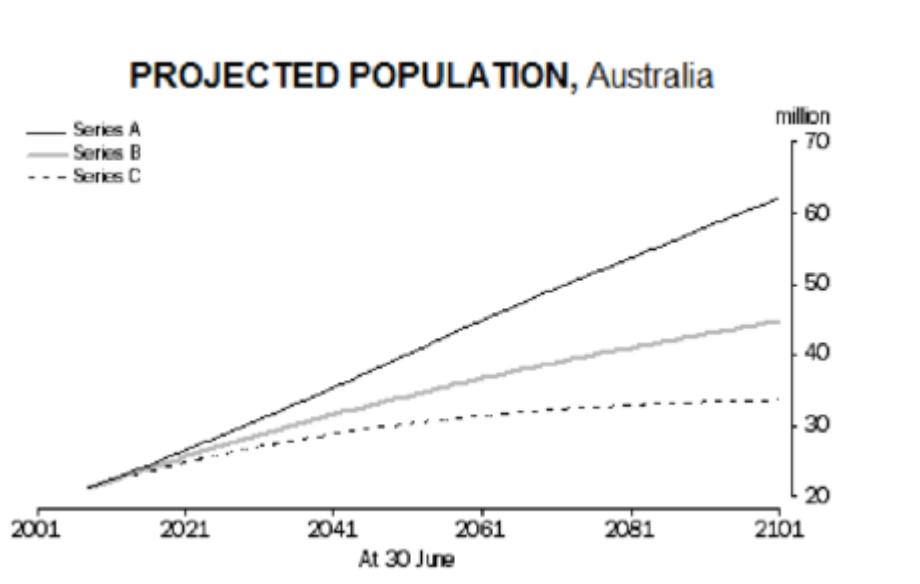
FIGURE 4
Annual change in forest area by region, 1990–2010



Adding an article to Wikipedia

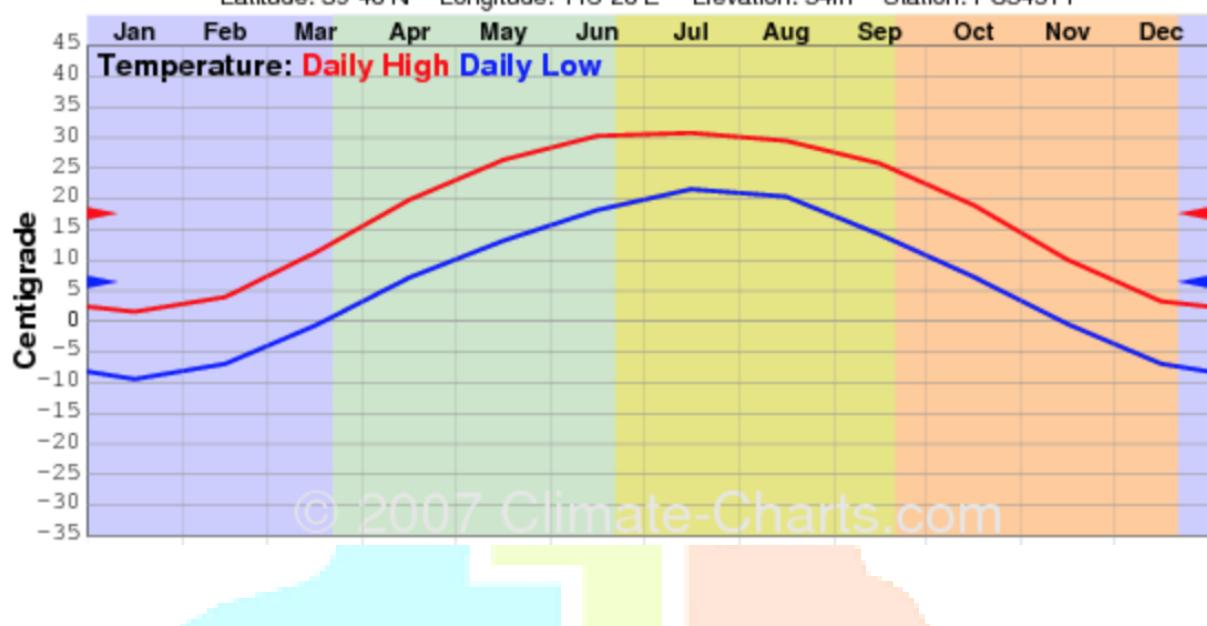


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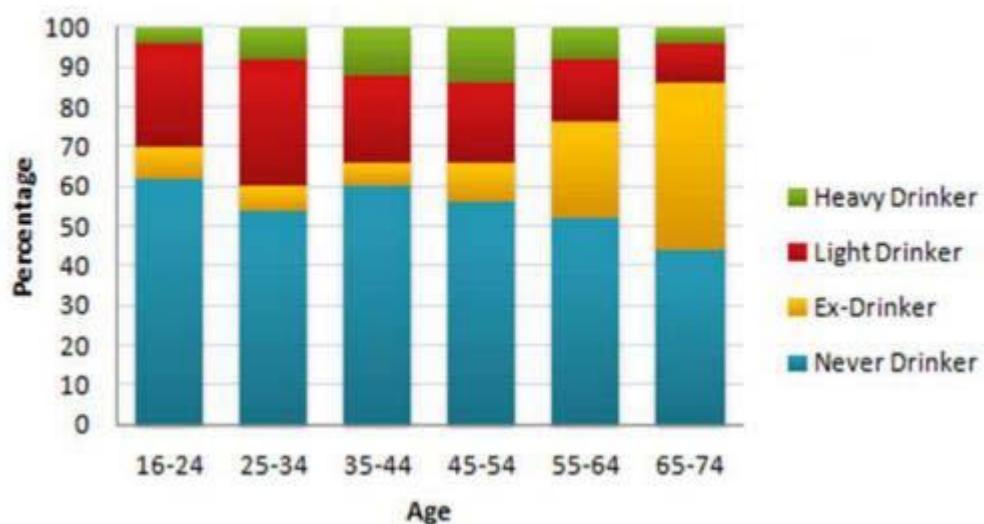


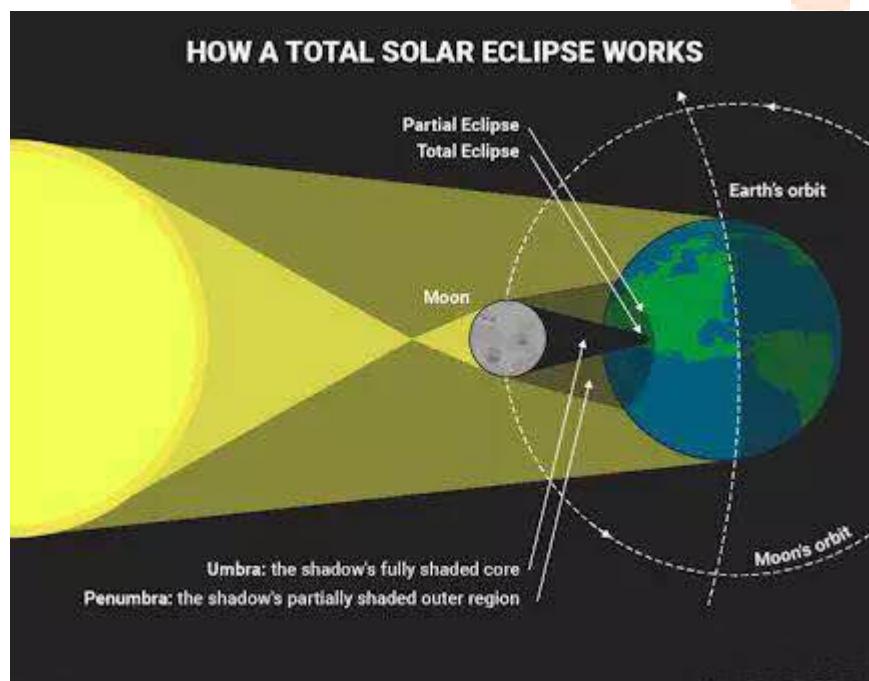
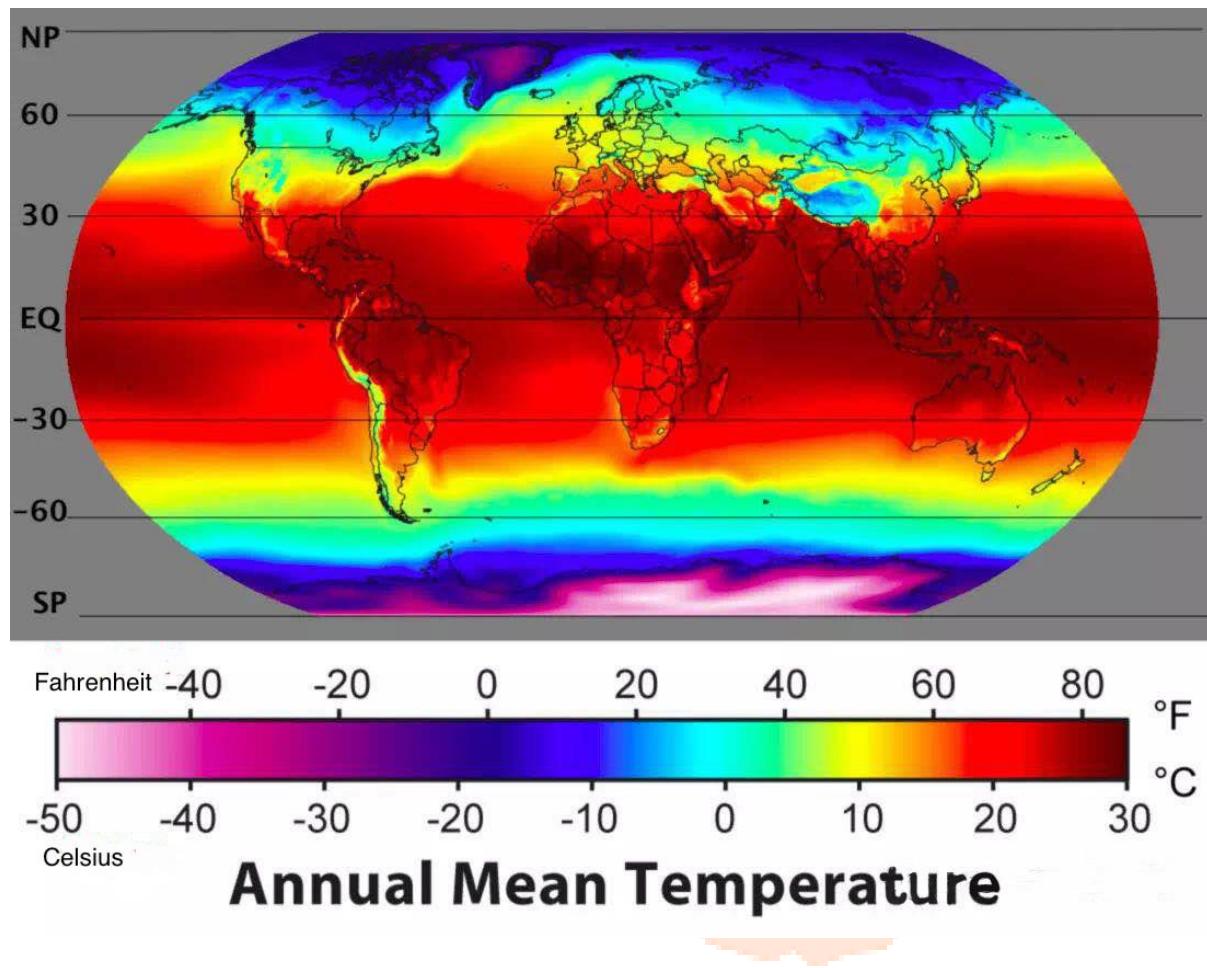
Beijing, China

Latitude: 39°48'N Longitude: 116°28'E Elevation: 54m Station: PC54511



Drinking habits by age (US)





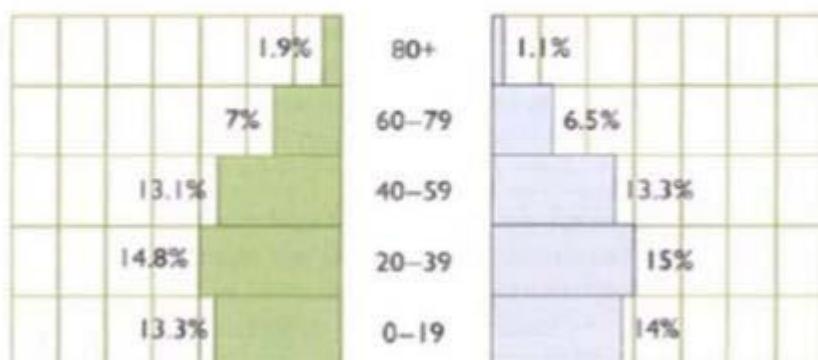


Population age groups in Australia

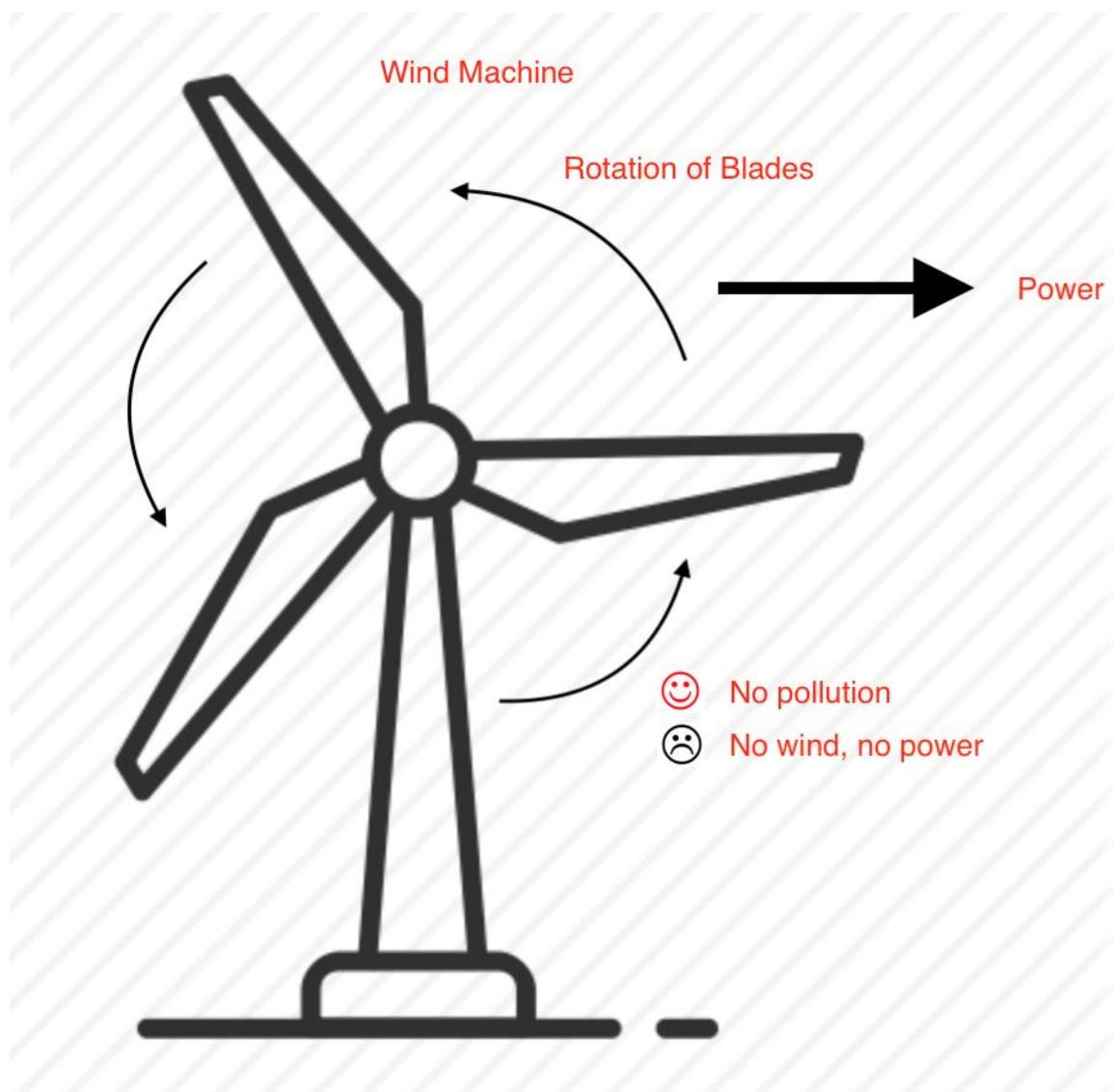
Female

Age

Male



A



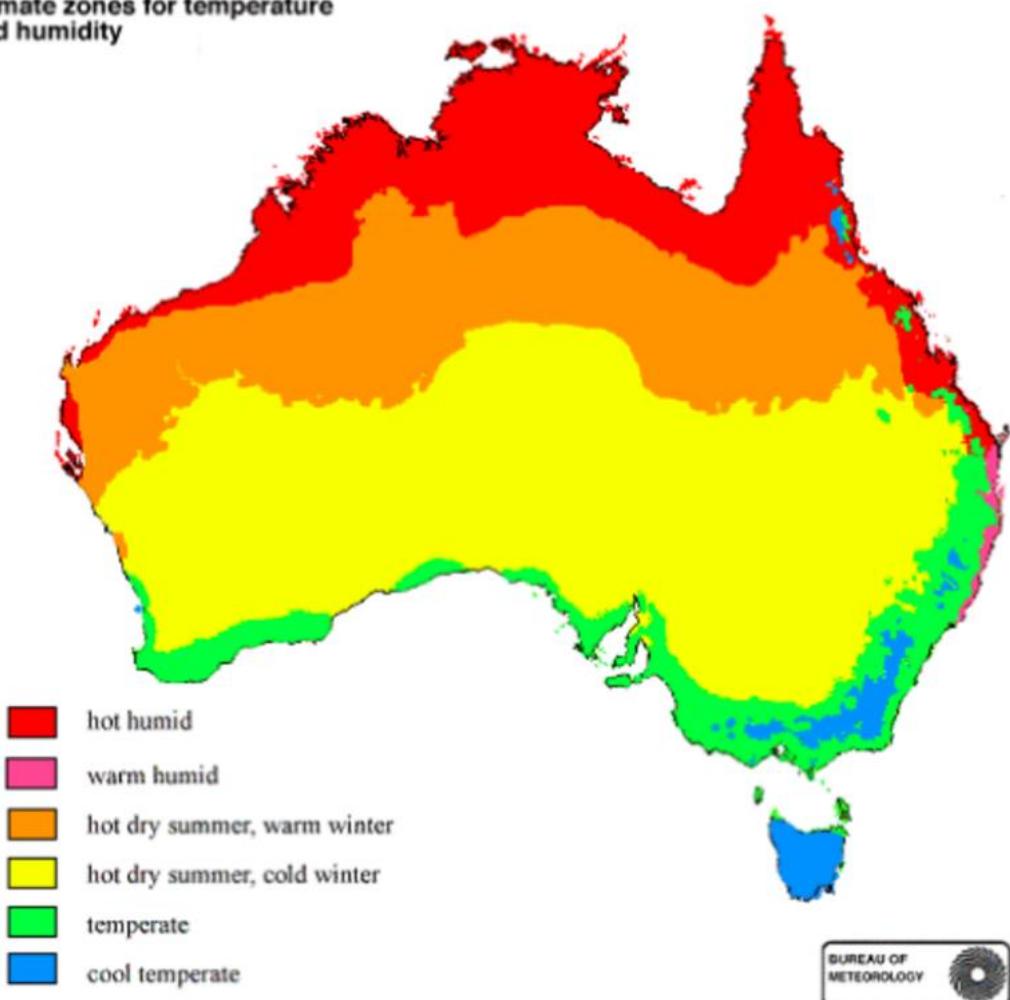
The eatwell plate

Food Standards Agency
eatwell.gov.uk



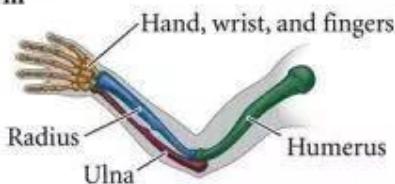
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Climate zones for temperature and humidity



Homologies of structure among human arm, seal forelimb, bird wing, and bat wing

Human arm



Seal limb



Bird wing



Bat wing

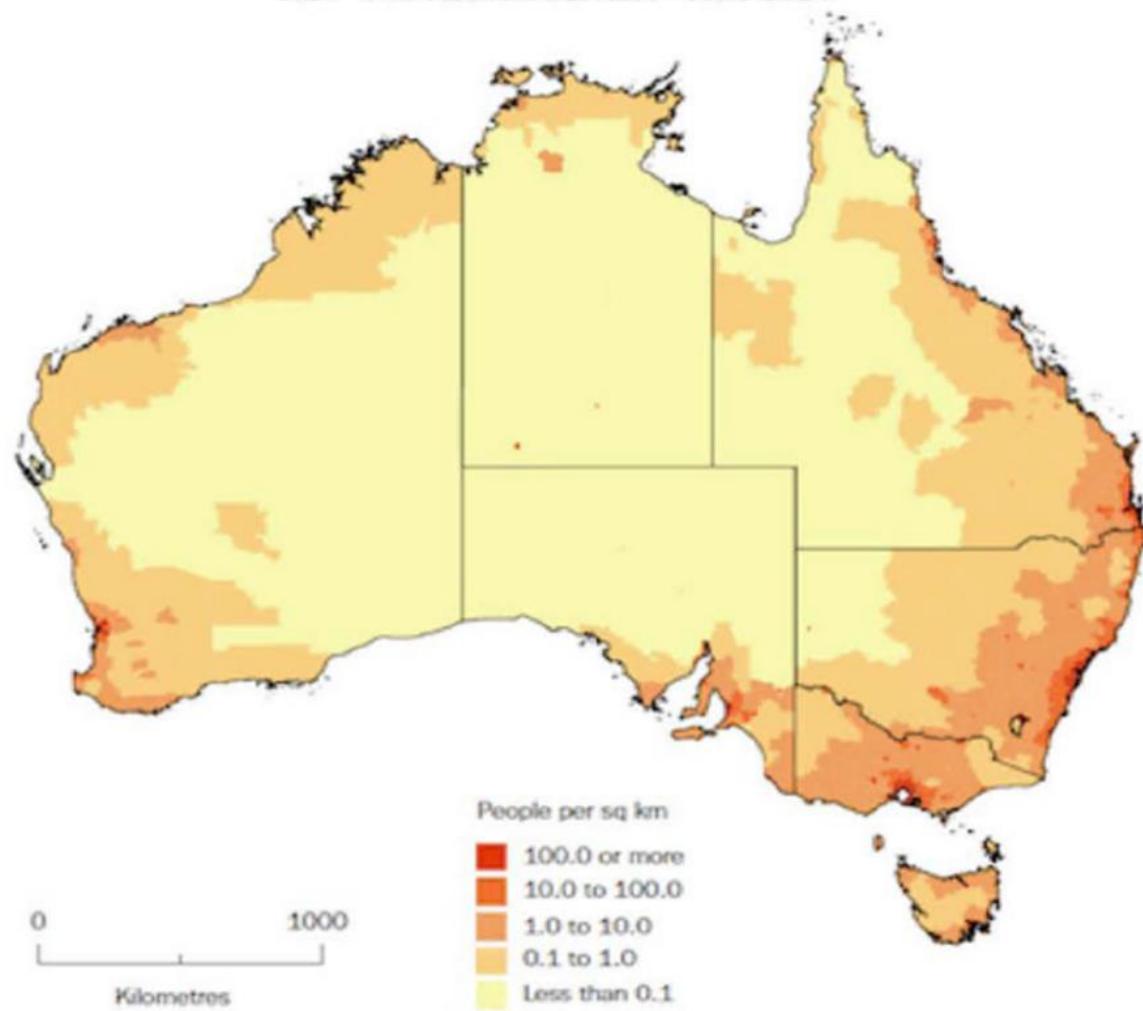


DEVELOPMENTAL BIOLOGY, 9e, Figure 1.19

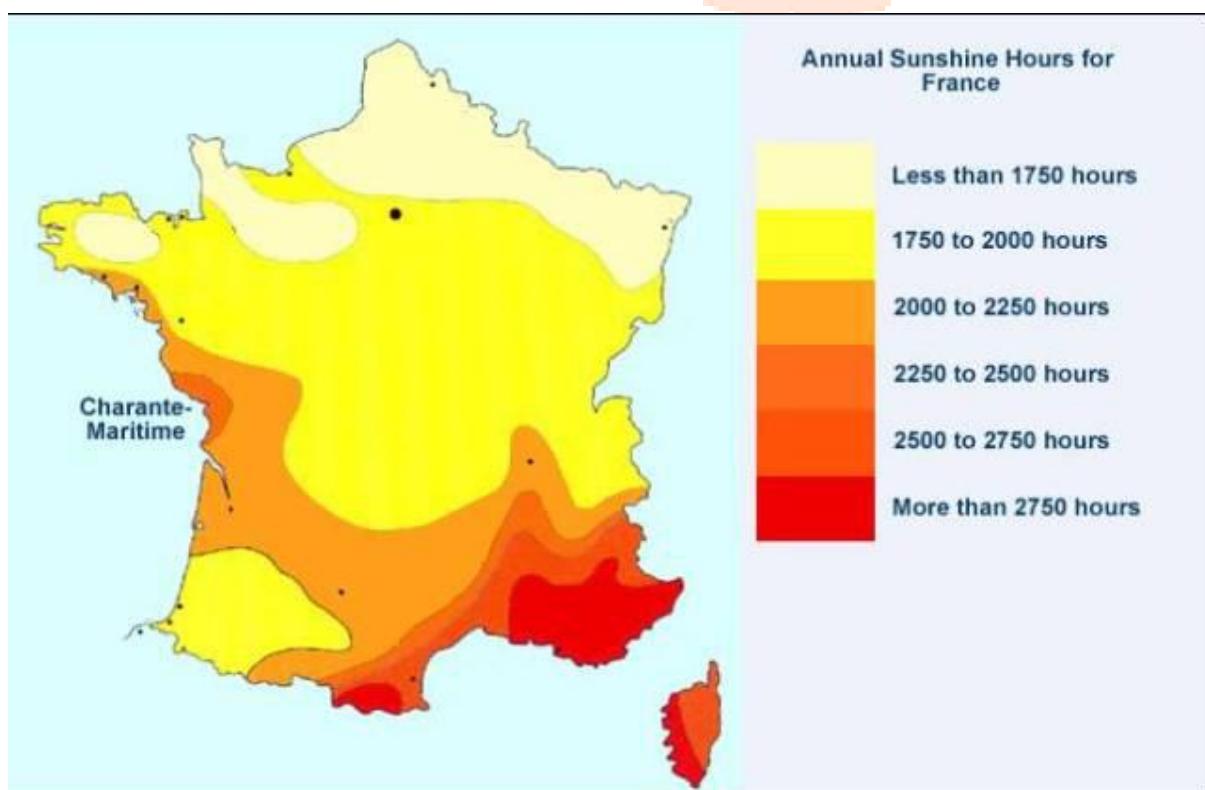
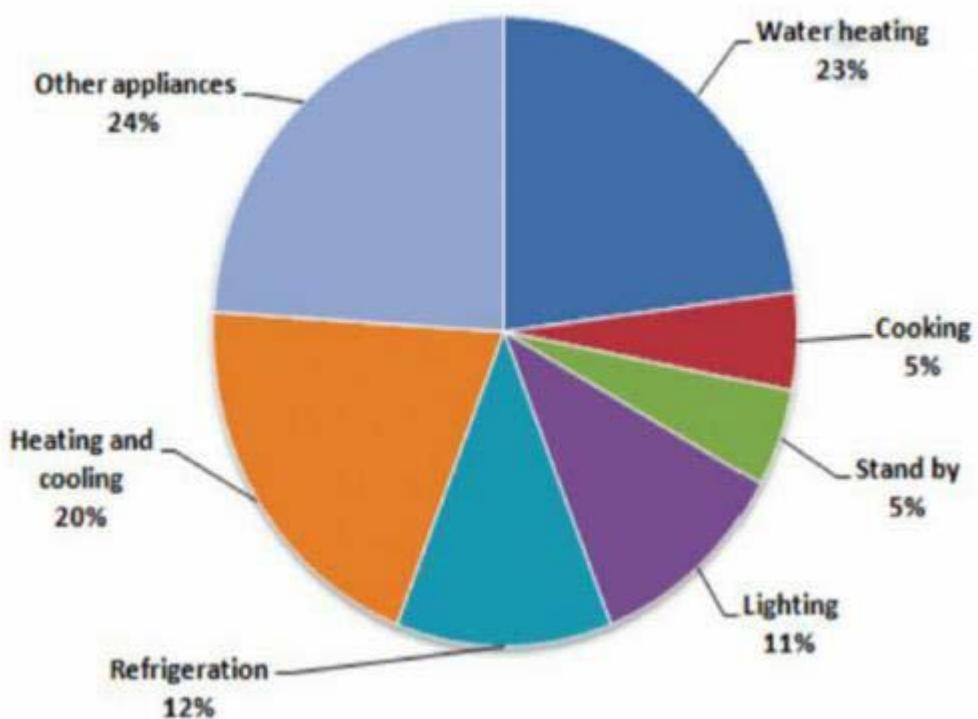
© 2010 Sinauer Associates, Inc.

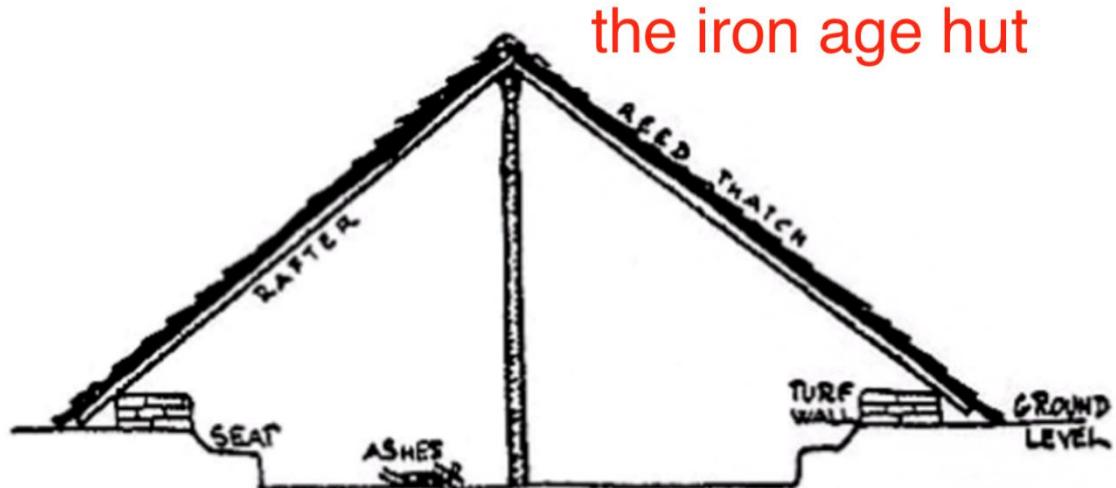
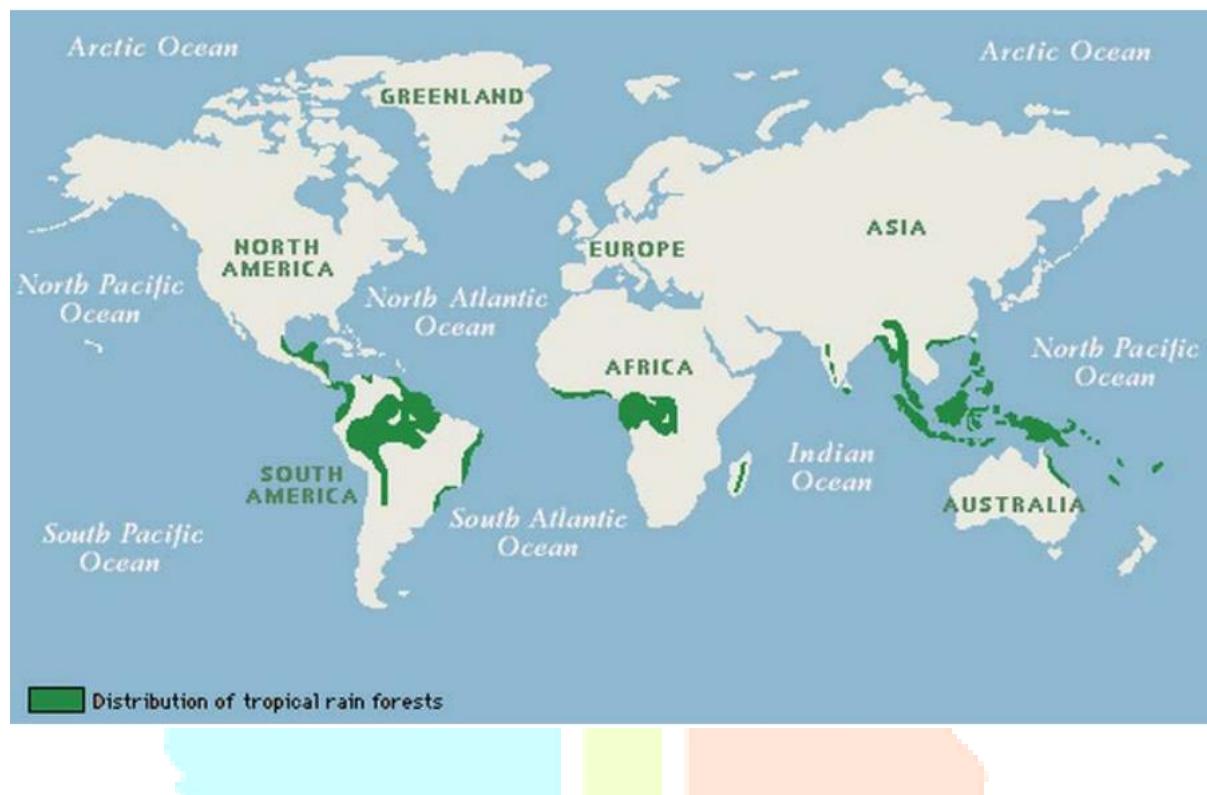
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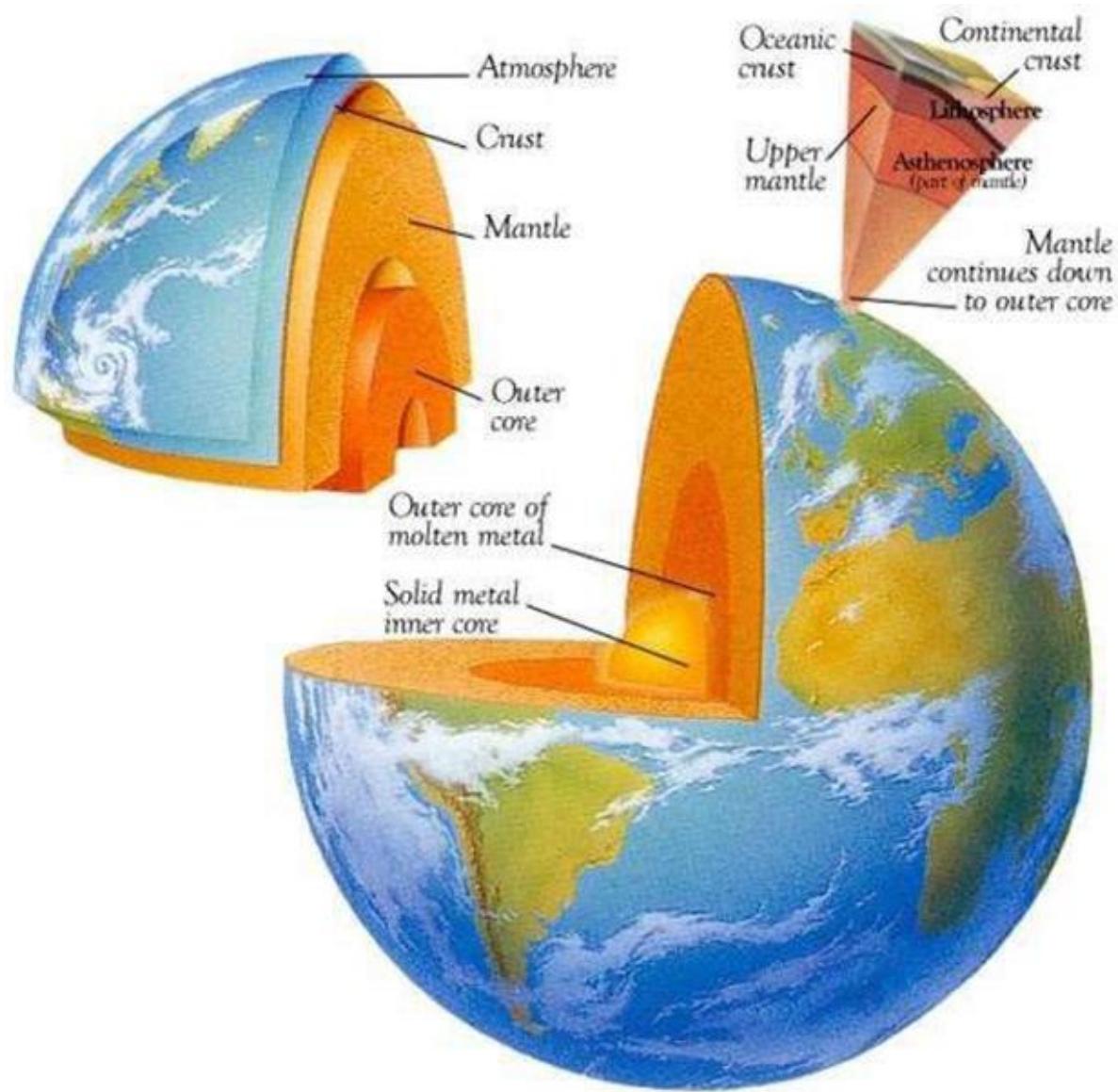
7.14 POPULATION DENSITY—June 2010



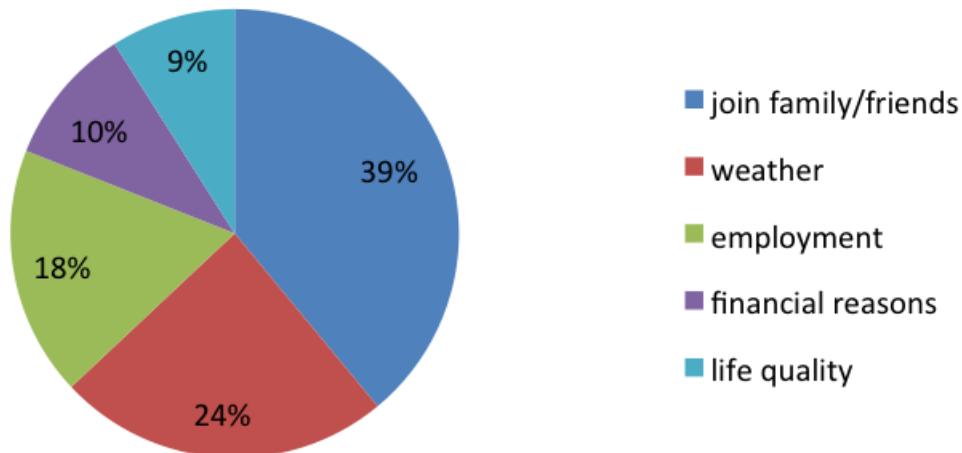
The Average Household Energy Consumption



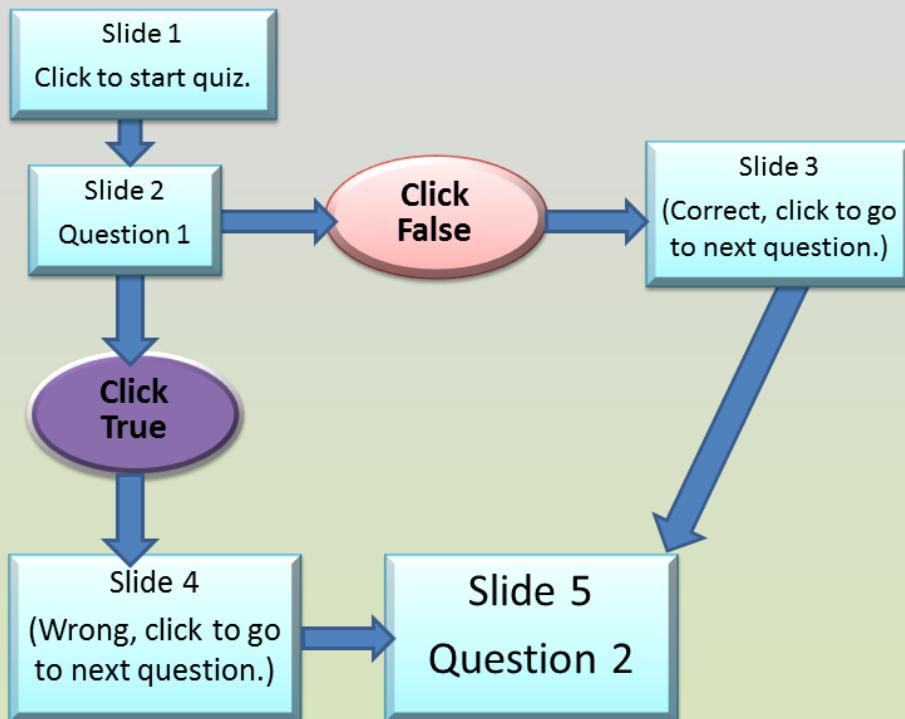




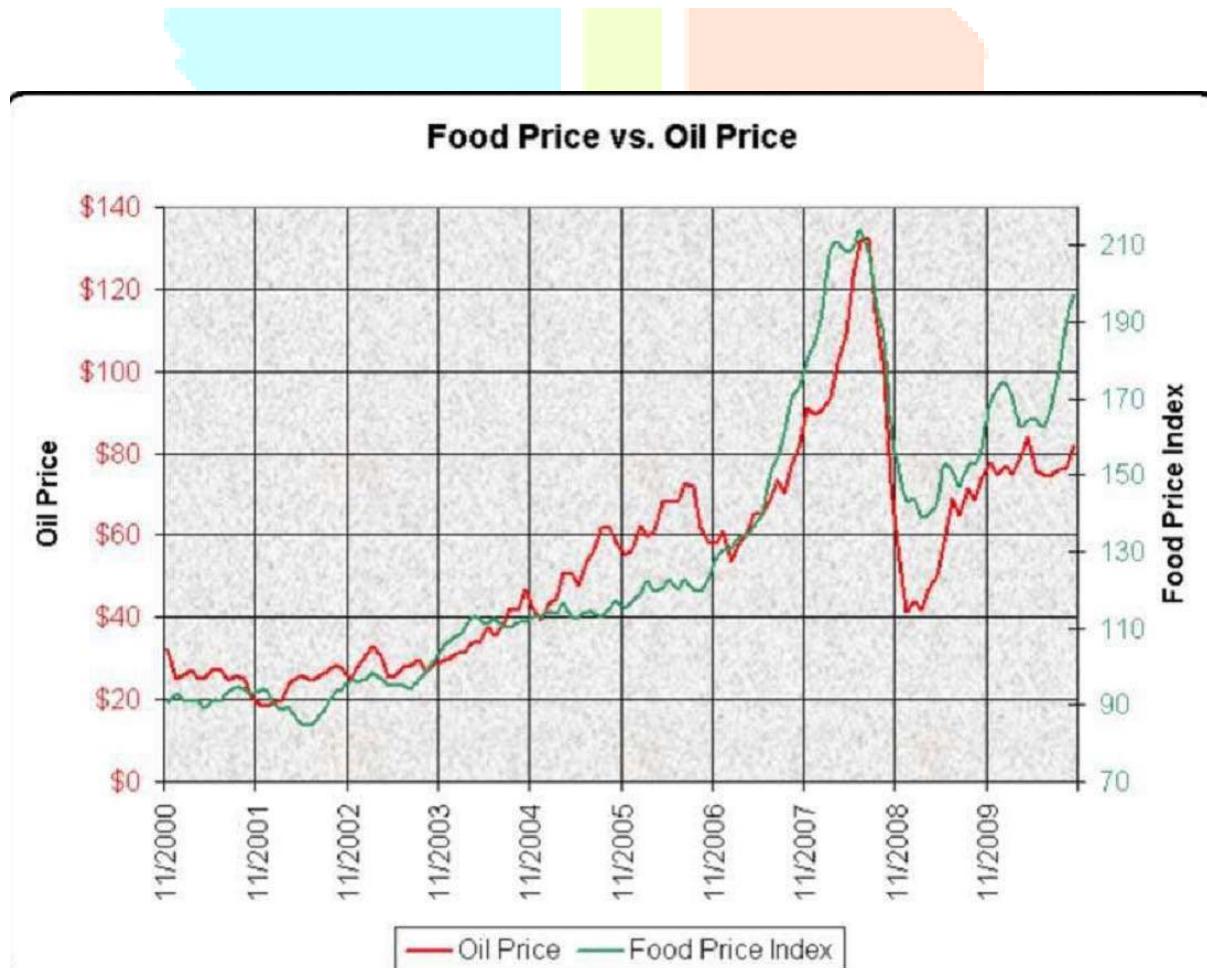
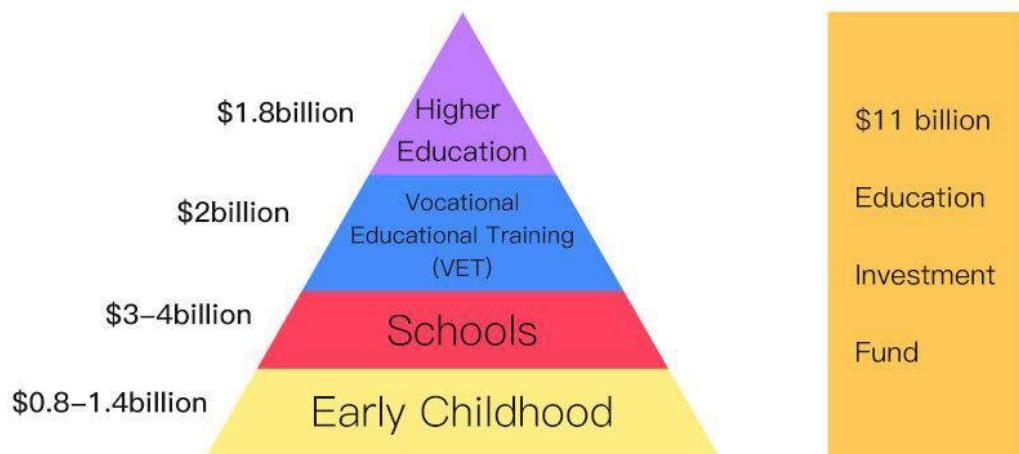
reasons why people left the UK



Beginning of flow chart for quiz.

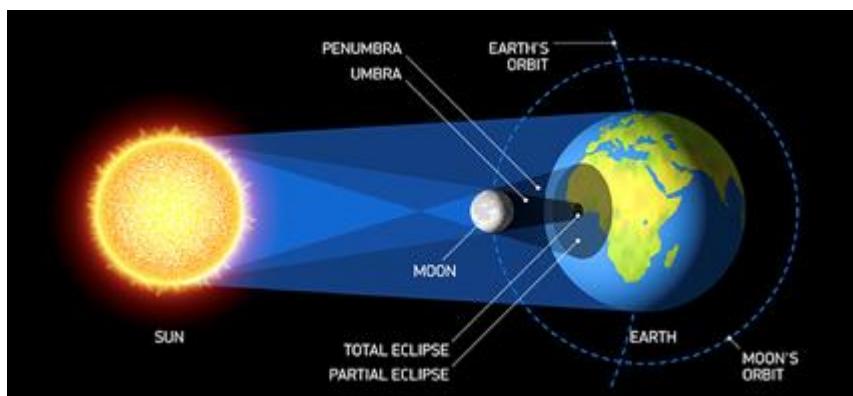


Government Expenditure: Education – all sectors





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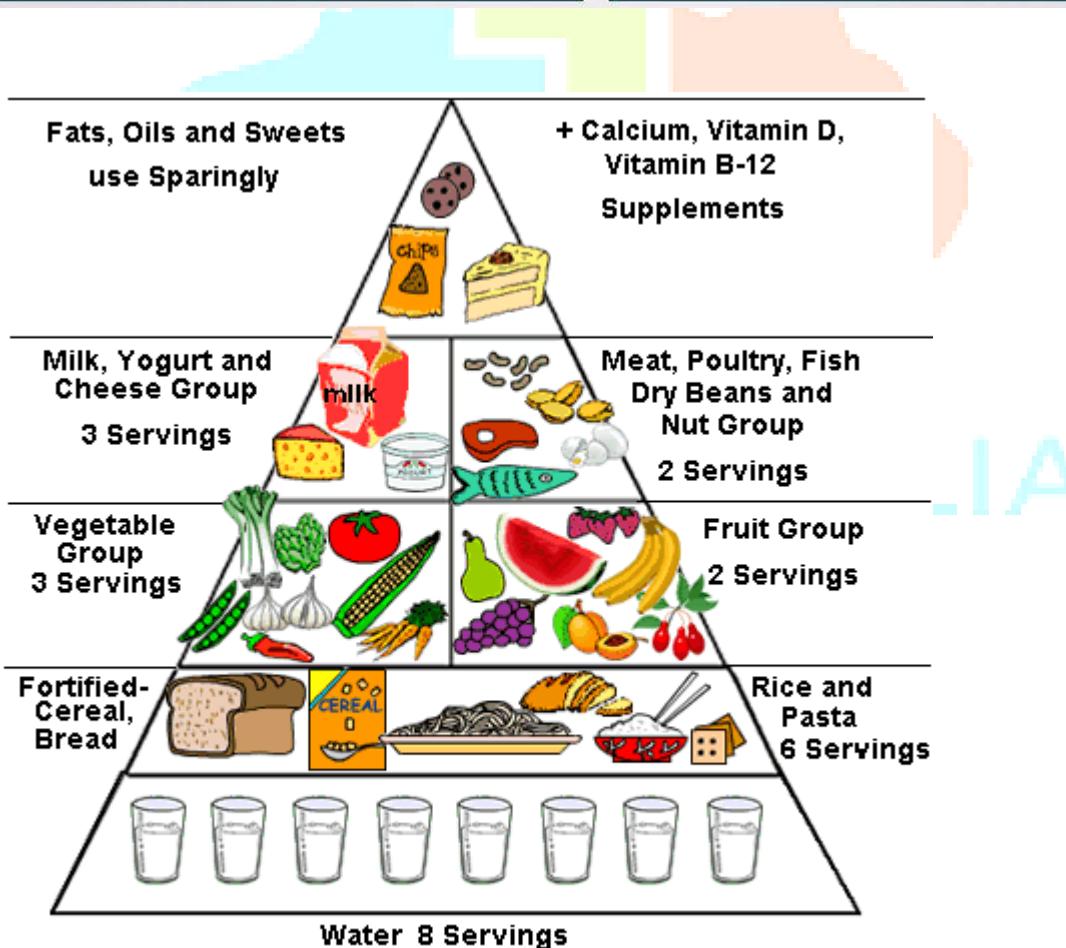
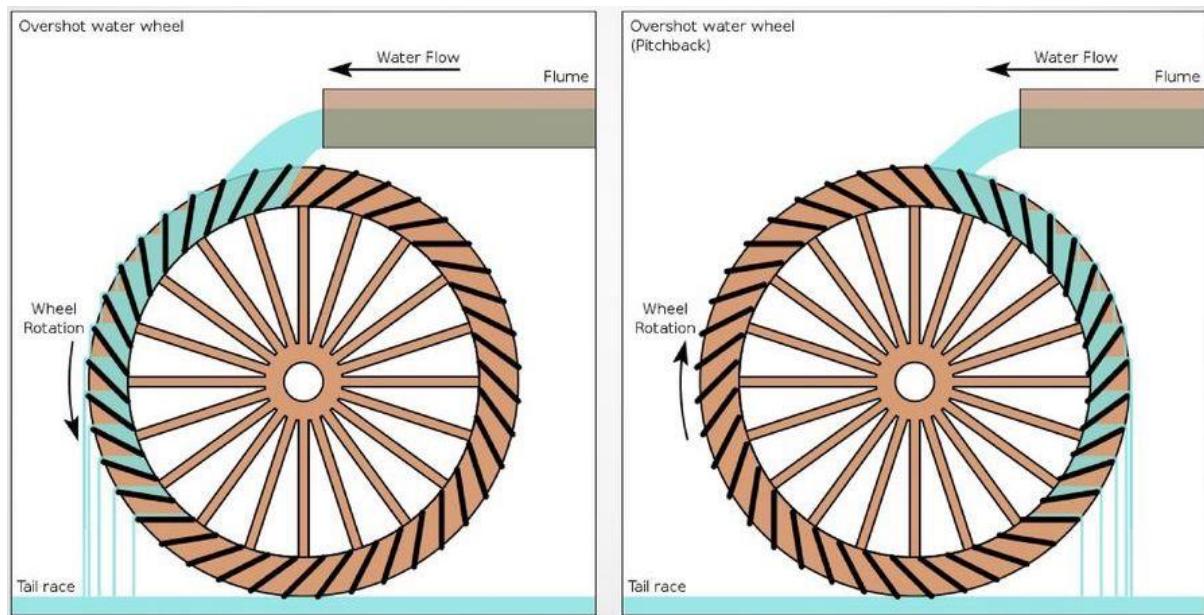
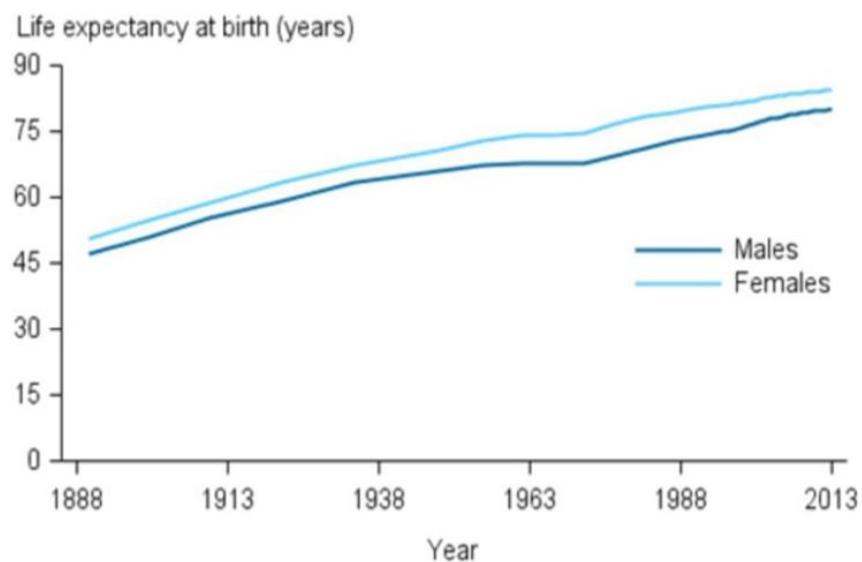


Figure 1: Life expectancy (years) at birth by sex, 1881–1890 to 2011–2013

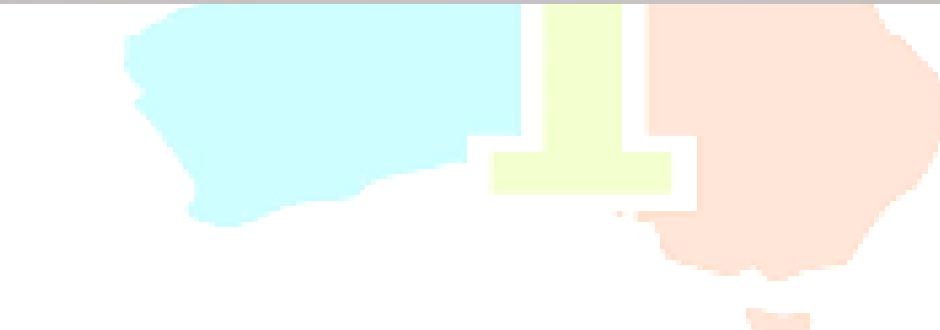
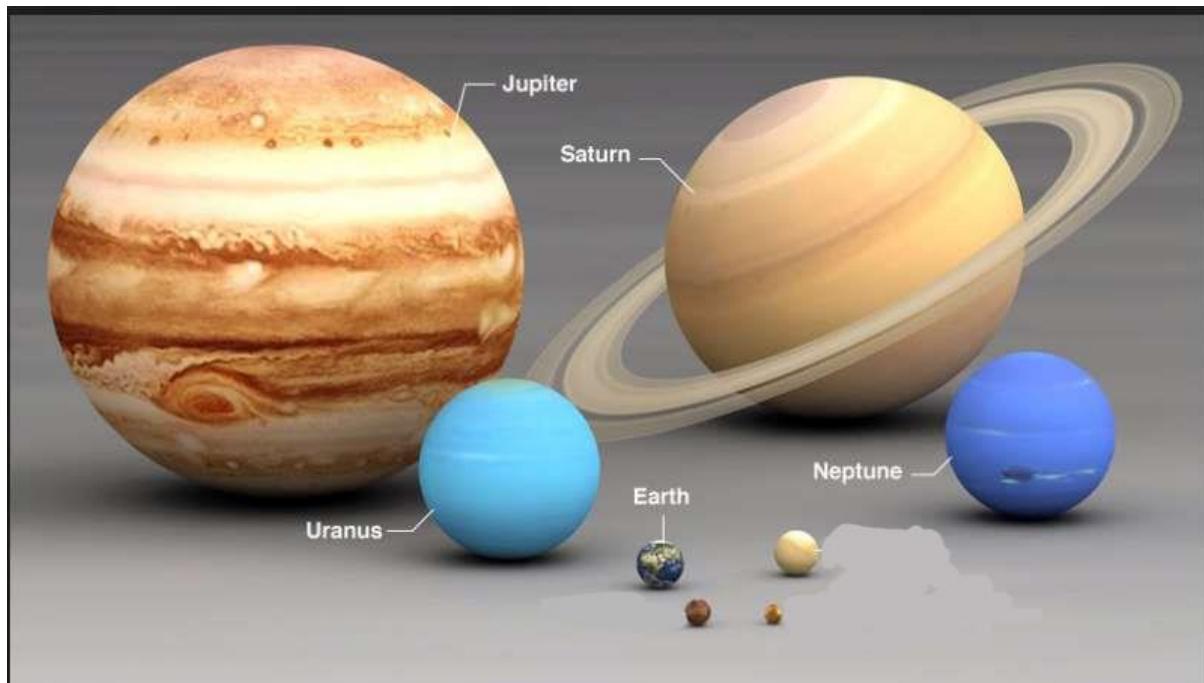


Map of Azerbaijan

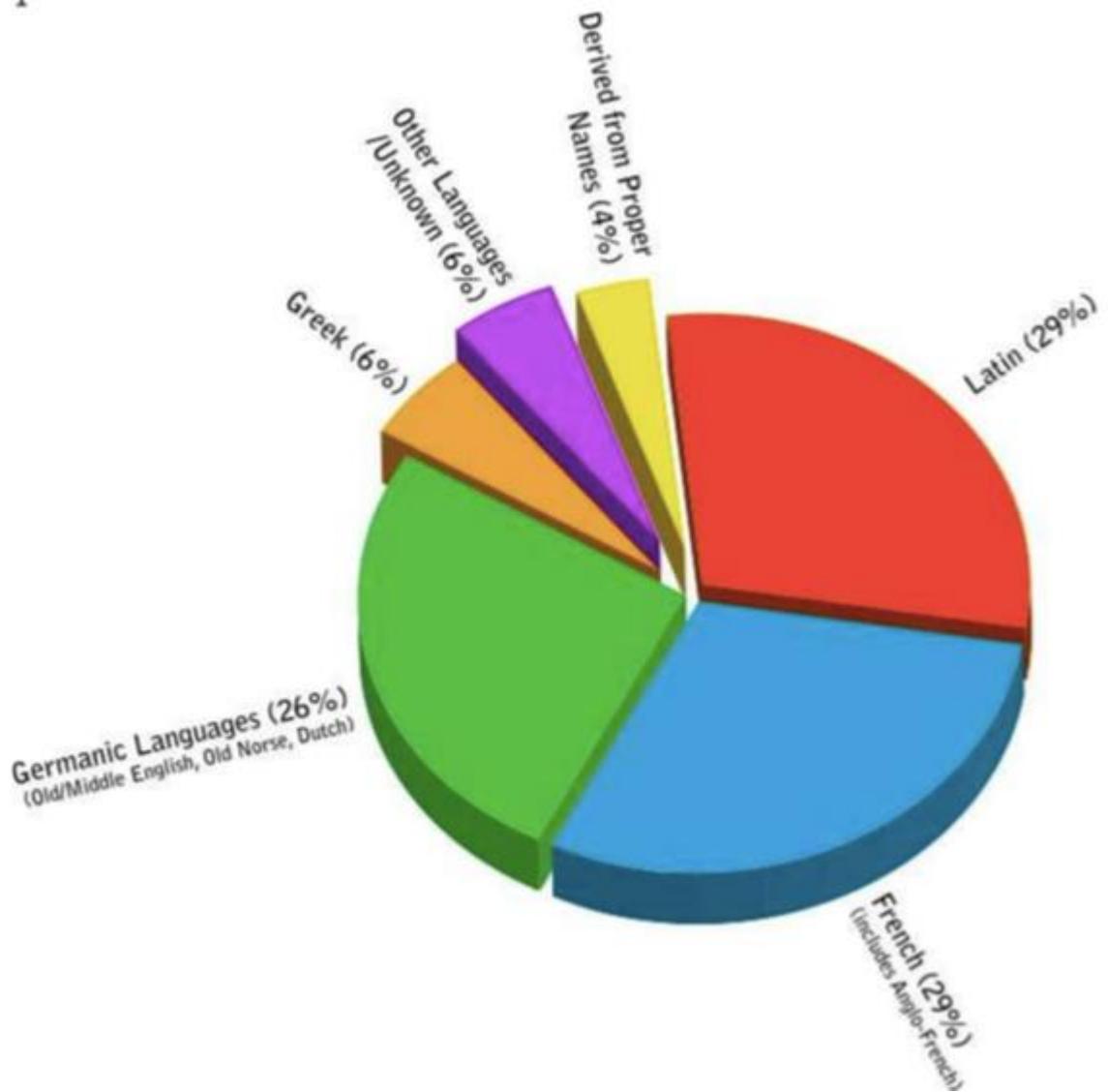


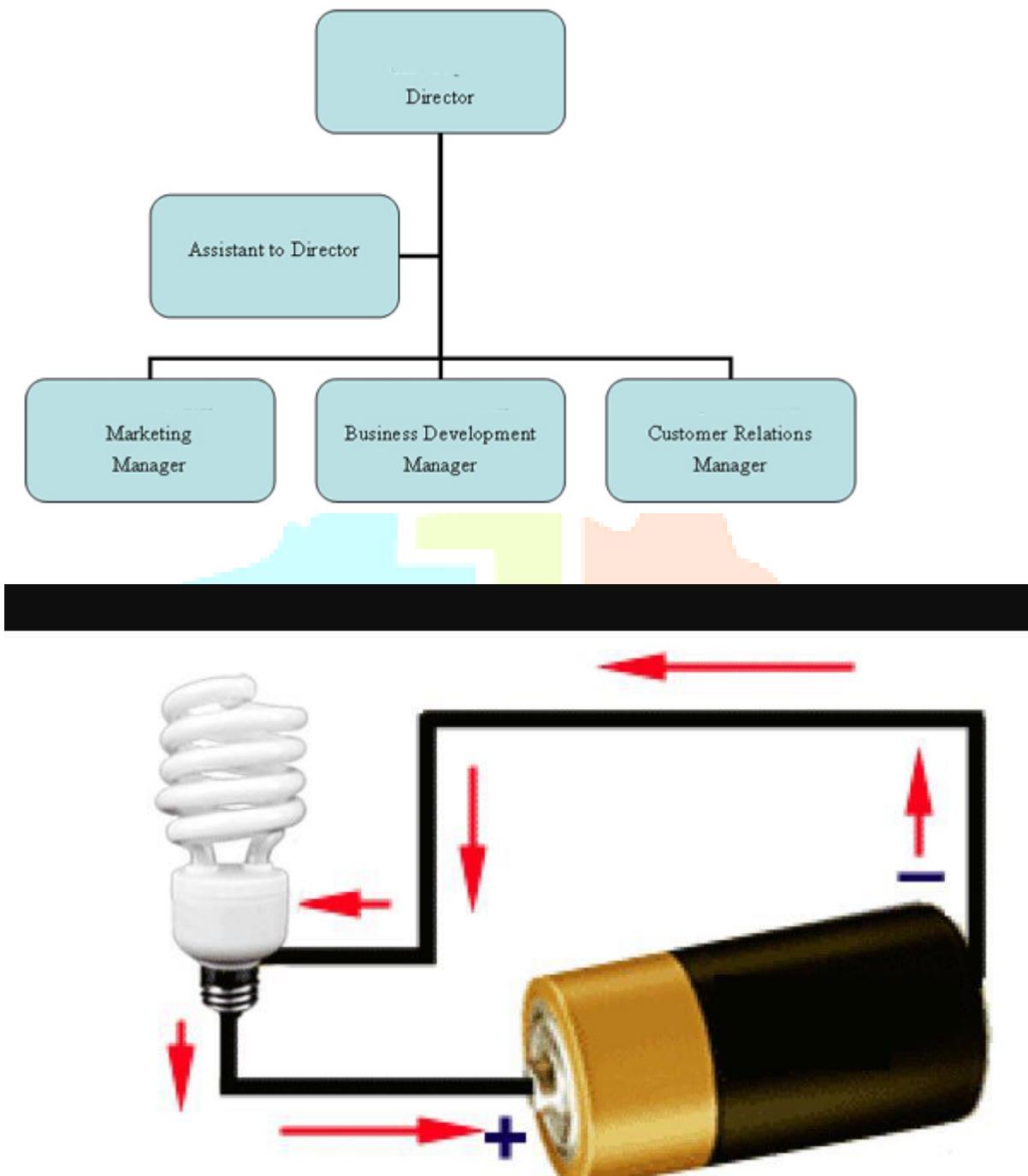
Dormitory in the University of Southampton self-catered one bedroom





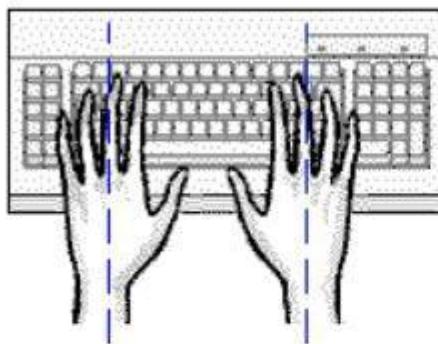
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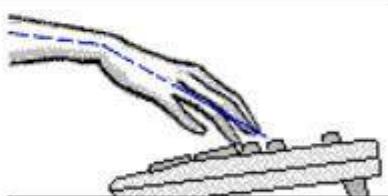
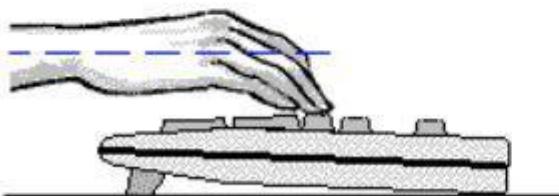
Simple circuit with light

RIGHT!



WRONG!

RIGHT!



WRONG!

ONE AUSTRALIA



Light up the world, after witnessing the violent rage shown by babies whenever deprived of an item they considered their own, Jean Piaget, a founding father of child psychology, observed something profound about human nature. Our sense of ownership emerges incredibly early. Why are we so clingy? There's a well-established phenomenon in psychology known as the endowment effect. Although feelings of ownership emerge early in life, culture also plays a part. For example, it was recently discovered that Hadza people of northern Tanzania who are isolated from modern culture don't exhibit the endowment effect. That's possibly because they live in an egalitarian society where almost everything is shared. At the other extreme, sometimes our attachment to our things can go too far. Part of the cause of hoarding disorder is an exaggerated sense of responsibility and protectiveness toward one's belongings. That's why people with this condition find it so difficult to throw anything away.

Sunscreen as we know it today didn't exist 50,000 years ago. So how did our ancestors cope with this onslaught of UV? The key to survival lay in their own personal sunscreen manufactured beneath the skin: melanin. The type and amount of melanin in your skin determines whether you'll be more or less protected from the sun. This comes down to the skin's response as sunlight strikes it. When it's exposed to UV light, that triggers special light-sensitive receptors called rhodopsin, which stimulate the production of melanin to shield cells from damage. For light-skin people, that extra melanin darkens their skin and produces a tan. Over the course of generations, humans living at the Sun-saturated latitudes in Africa adapted to have a higher melanin production threshold and more eumelanin, giving skin a darker tone. This built-in sun shield helped protect them from melanoma, likely making them evolutionarily fitter and capable of passing this useful trait on to new generations.

In the late 17th century, a medical student named Johannes Hofer noticed a strange illness affecting Swiss mercenaries serving abroad. Its symptoms, including fatigue, insomnia, irregular heartbeat, indigestion, and fever were so strong, the soldiers often had to be discharged. As Hofer discovered, the cause was not some physical disturbance, but an intense yearning for their mountain homeland. He dubbed the condition nostalgia, from the Greek "nostos" "for homecoming and "algos" for pain or longing. At first, nostalgia was considered a particularly Swiss affliction. Some doctors proposed that the constant sound of cowbells in the Alps caused trauma to the ear drums and brain. Commanders even forbade their soldiers from singing traditional Swiss songs for fear that they'd lead to desertion or suicide. But as migration increased worldwide, nostalgia was observed in various groups. It turned out that anyone separated from their native place for a long time was vulnerable to nostalgia. And by the early 20th century, professionals no longer viewed it as a neurological disease, but as a mental condition similar to depression.

Reliability and validity are two critical ideas for understanding standardized tests. To understand the difference between them, we can use the metaphor of two broken thermometers. An unreliable thermometer gives you a different reading each time you take your temperature, and the reliable but invalid thermometer is consistently ten degrees too hot. Validity also depends on accurate interpretations of results. If people say results of a test mean something they don't, that test may have a validity problem. Just as we wouldn't expect a ruler to tell us how much an elephant weighs, or what it had for breakfast, we can't expect standardized tests alone to reliably tell us how smart

someone is, how diplomats will handle a tough situation, or how brave a firefighter might turn out to be. So standardized tests may help us learn a little about a lot of people in a short time, but they usually can't tell us a lot about a single person. Many social scientists worry about test scores resulting in sweeping and often negative changes for test takers, sometimes with long-term life consequences. We can't blame the tests, though. It's up to us to use the right tests for the right jobs, and to interpret results appropriately.

The benefits of being left-handed are clearest in activities involving an opponent, like combat or competitive sports. For example, about 50% of top hitters in baseball have been left-handed. Why? Think of it as a surprise advantage. Because lefties are a minority to begin with, both right-handed and left-handed competitors will spend most of their time encountering and practicing against righties. So when the two face each other, the left-hander will be better prepared against this right-handed opponent, while the righty will be thrown off. This fighting hypothesis, where an imbalance in the population results in an advantage for left-handed fighters or athletes, is an example of negative frequency-dependent selection. But according to the principles of evolution, groups that have a relative advantage tend to grow until that advantage disappears. If people were only fighting and competing throughout human evolution, natural selection would lead to more lefties being the ones that made it until there were so many of them, that it was no longer a rare asset. So in a purely competitive world, 50% of the population would be left-handed.

Ocean currents are driven by a range of sources: the wind, tides, changes in water density, and the rotation of the Earth. The topography of the ocean floor and the shoreline modifies those motions, causing currents to speed up, slow down, or change direction. Ocean currents fall into two main categories: surface currents and deep ocean currents. Surface currents control the motion of the top 10 percent of the ocean's water, while deep-ocean currents mobilize the other 90 percent. Though they have different causes, surface and deep ocean currents influence each other in an intricate dance that keeps the entire ocean moving. Near the shore, surface currents are driven by both the wind and tides, which draw water back and forth as the water level falls and rises. Meanwhile, in the open ocean, wind is the major force behind surface currents. As wind blows over the ocean, it drags the top layers of water along with it. That moving water pulls on the layers underneath, and those pull on the ones beneath them.

As early as 8000 BCE, the earliest Neolithic farmers living in the Fertile Crescent began a legacy of cheese-making almost as old as civilization itself. The rise of agriculture led to domesticated sheep and goats, which ancient farmers harvested for milk. But when left in warm conditions for several hours, that fresh milk began to sour. Its lactic acids caused proteins to coagulate, binding into soft clumps. Upon discovering this strange transformation, the farmers drained the remaining liquid - later named whey - and found the yellowish globs could be eaten fresh as a soft, spreadable meal. These clumps, or curds, became the building blocks of cheese, which would eventually be aged, pressed, ripened, and whizzed into a diverse cornucopia of dairy delights. The discovery of cheese gave Neolithic people an enormous survival advantage. Milk was rich with essential proteins, fats, and minerals. But it also contained high quantities of lactose - a sugar which is difficult to process for many ancient and modern stomachs. Cheese however, could provide all of milk's advantages with

much less lactose. And since it could be preserved and stockpiled, these essential nutrients could be eaten throughout scarce famines and long winters.

The elephant boasts the largest brain of any land mammal, as well as an impressive encephalization quotient. This is the size of the brain relative to what we'd expect for an animal's body size, and the elephant's EQ is nearly as high as a chimpanzee's. And despite the distant relation, convergent evolution has made it remarkably similar to the human brain, with as many neurons and synapses and a highly developed hippocampus and cerebral cortex. It is the hippocampus, strongly associated with emotion, that aids recollection by encoding important experiences into long-term memories. The ability to distinguish this importance makes elephant memory a complex and adaptable faculty beyond rote memorization. It's what allows elephants who survived a drought in their youth to recognize its warning signs in adulthood, which is why clans with older matriarchs have higher survival rates. Unfortunately, it's also what makes elephants one of the few non-human animals to suffer from post-traumatic stress disorder. The cerebral cortex, on the other hand, enables problem solving, which elephants display in many creative ways. They also tackle problems cooperatively, sometimes even outwitting the researchers and manipulating their partners. And they've grasped basic arithmetic, keeping track of the relative amounts of fruit in two baskets after multiple changes.

Many patients acquire the allergy label as children, when a rash appears after they're treated for an infection with penicillin or closely related drugs. The rash is often blamed on penicillin, while the more likely culprit is the original infection, or a reaction between the infection and the antibiotic. However, genuine penicillin allergies, where our immune systems mistake penicillin for an attacker, do occur rarely and can be very dangerous. So if you think you're allergic but don't know for sure, your best bet is to visit an allergist. They'll complete an evaluation that'll confirm whether or not you have the allergy. Even if you do have a penicillin allergy, your immune cells that react to the drug may lose their ability to recognize it. In fact, about 80% of people who are allergic to penicillin outgrow their allergy within ten years. This is great news for people who currently identify as allergic to penicillin; the drug may one day save their lives, as it has done for so many others.

Although modern money laundering methods vary greatly, most share three basic steps: placement, layering, and integration. Placement is where illegally obtained money is converted into assets that seem legitimate. That's often done by depositing funds into a bank account registered to an anonymous corporation or a professional middleman. This step is where criminals are often most vulnerable to detection since they introduce massive wealth into the financial system seemingly out of nowhere. The second step, layering, involves using multiple transactions to further distance the funds from their origin. This can take the form of transfers between multiple accounts, or the purchase of tradable property, like expensive cars, artwork, and real estate. Casinos, where large sums of money change hands every second, are also popular venues for layering. A money launderer may have their gambling balance made available at a casino chain's locations in other countries, or work with employees to rig games. The last step, integration, allows clean money to re-enter the mainstream economy and to benefit the original criminal. They might invest it into a legal business claiming payment by producing fake invoices, or even start a bogus charity, placing themselves on the board of directors with an exorbitant salary.

Nobody knows exactly when humans began to create fermented beverages. The earliest known evidence comes from 7,000 BCE in China, where residue in clay pots has revealed that people were making an alcoholic beverage from fermented rice, millet, grapes, and honey. Within a few thousand years, cultures all over the world were fermenting their own drinks. Ancient Mesopotamians and Egyptians made beer throughout the year from stored cereal grains. This beer was available to all social classes, and workers even received it in their daily rations. They also made wine, but because the climate wasn't ideal for growing grapes, it was a rare and expensive delicacy. By contrast, in Greece and Rome, where grapes grew more easily, wine was as readily available as beer was in Egypt and Mesopotamia. Because yeasts will ferment basically any plant sugars, ancient peoples made alcohol from whatever crops and plants grew where they lived. In South America, people made chicha from grains, sometimes adding hallucinogenic herbs. In what's now Mexico, pulque, made from cactus sap, was the drink of choice, while East Africans made banana and palm beer. And in the area that's now Japan, people made sake from rice.

Drug interactions happen when the combination of a drug with another substance causes different effects than either would individually. Foods, herbal supplements, legal drugs, and illicit substances can all cause drug interactions. Most drug interactions fall into two categories. Some take place when two substances' effects influence each other directly. In other cases, one substance affects how the body processes another, like how it is absorbed, metabolized or transported around the body. Blood thinners and aspirin, for example, have similar effects that become dangerous when combined. Both prevent blood clots from forming—blood thinners by preventing the formation of the clotting factors that hold clots together, and aspirin by preventing blood cells from clumping into groups that become clots. Individually, these effects are usually safe, but taken together, they can prevent blood clotting to a dangerous extent, possibly causing internal bleeding. While blood thinners and aspirin are generally harmless when taken individually, interactions where one substance exacerbates the effects of another can also take place between drugs that are independently harmful.

Nearly 9,000 years ago, corn, also called maize, was first domesticated from teosinte, a grass native to Mesoamerica. Teosinte's rock-hard seeds were barely edible, but its fibrous husk could be turned into a versatile material. Over the next 4,700 years, farmers bred the plant into a staple crop, with larger cobs and edible kernels. As maize spread throughout the Americas, it took on an important role, with multiple indigenous societies revering a "Corn Mother" as the goddess who created agriculture. When Europeans first arrived in America, they shunned the strange plant. Many even believed it was the source of physical and cultural differences between them and the Mesoamericans. However, their attempts to cultivate European crops in American soil quickly failed, and the settlers were forced to expand their diet. Finding the crop to their taste, maize soon crossed the Atlantic, where its ability to grow in diverse climates made it a popular grain in many European countries. But the newly established United States was still the corn capital of the world.

We may think of nature as being unconnected to our urban spaces, but trees have always been an essential part of successful cities. Trees act like a natural sponge, absorbing storm water runoff before releasing it back into the atmosphere. The webs of their roots protect against mudslides while

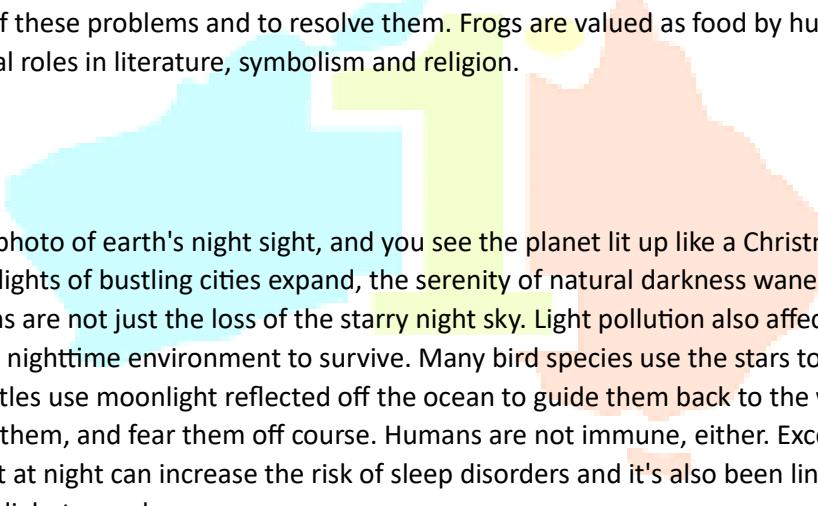
allowing soil to retain water and filter out toxins. Roots help prevent floods, while reducing the need for storm drains and water treatment plants. Their porous leaves purify the air by trapping carbon and other pollutants, making them essential in the fight against climate change. Humanity has been uncovering these arboreal benefits for centuries. But trees aren't just crucial to the health of a city's infrastructure; they play a vital role in the health of its citizens as well. In the 1870's, Manhattan had few trees outside the island's parks. Without trees to provide shade, buildings absorbed up to nine times more solar radiation during deadly summer heat waves. Combined with the period's poor sanitation standards, the oppressive heat made the city a breeding ground for bacteria like cholera.

If you have an old phone, you might want to consider your options before throwing it away. To minimize waste, you could donate it to a charity for reuse, take it to an e-waste recycling facility, or look for a company that refurbishes old models. However, even recycling companies need our scrutiny. Just as the production of smartphones comes with social and environmental problems, dismantling them does too. E-waste is sometimes intentionally exported to countries where labor is cheap but working conditions are poor. Vast workforces, often made up of women and children, may be underpaid, lack the training to safely disassemble phones, and be exposed to elements like lead and mercury, which can permanently damage their nervous systems. Phone waste can also end up in huge dump sites, leaching toxic chemicals into the soil and water, mirroring the problems of the mines where the elements originated. A phone is much more than it appears to be on the surface. It's an assemblage of elements from multiple countries, linked to impacts that are unfolding on a global scale. So, until someone invents a completely sustainable smartphone, we'll need to come to terms with how this technology affects widespread places and people.

There is a picture, sort of artist's impression, before the space age of what Venus might be like on its surface and so this was looking at the planet Venus, it was science fiction and science fact all the way up to 56 before the start of the space age but it wasn't completely disproved, this idea of a really sort of lush environment on Venus until 1967, which is when the first measurements in detail were done at Venus. So Mariner four and Mariner five confirmed the feeling from an earlier space mission that in fact the surface of Venus was not like this at all, but extremely hot and, and also that the clouds were made of sulfuric acid so there wasn't a nice water cycle like is going on in this picture and so, that it had to wait for these in situ measurements by space craft to actually do that and so Venus turned out not to be quite as Earth like as we thought and I'll sort of tell you about some of the latest results from Venus Express, which, which they actually there are some Earth like features, but to a large extent, it's not like the Earth.

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 feed 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.



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.

ONE AUSTRALIA

Mars is the fourth planet from the sun and the second smallest planet in the solar system after Mercury, named after the Roman god of the war. It is often referred to as a red planet because the iron oxide prevalent on its surface gives it a reddish appearance. Mars is a terrestrial planet with a thin atmosphere, having surface features reminiscent of both the impact crater of the moon, and the volcanoes, valleys, deserts, and polar ice caps of the earth. The rotational period and the season cycles of the Mars are likewise similar of those of earth, as it was the tilt that produced the seasons. Mars is the site of the Olympus Mons, the largest volcano and the second largest known mountain in the solar system, and the Valles Marineris, one of the largest canyon in the solar system. Until the first successful Mars flyby in 1965 by Mariner 4, many speculated about the presence of the liquid water on the planet surface. This was based on observed periodic variation in the light and the dark patches, particularly in the polar latitude, which appeared to be seas and continents. Geological evidence gathered by the unmanned mission suggested that Mars once had a large scale of water coverage on the surface at some earlier stages of existence.

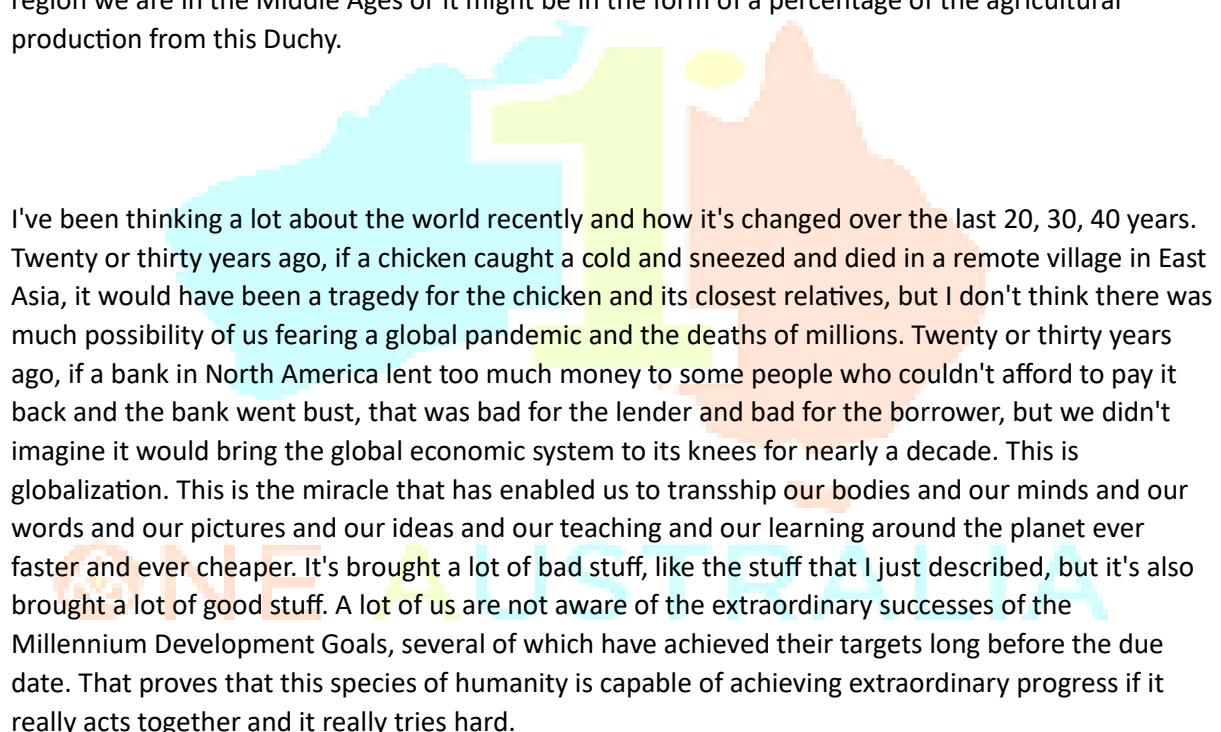
Many parents communicate and educate their children with two languages, probably because they both know more than one language, or they come from different countries. Most of these parents think this can benefit their children's language learning. But actually kids will get confused when their parents 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.

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.



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.

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.



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.

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 nutrient. 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.

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

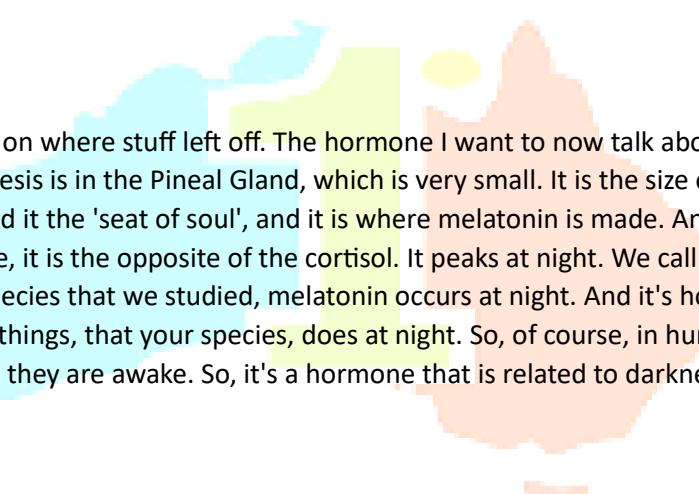
unprecedented growth in aquaculture production, more than 300% since 1984, which has increased the importance of the modern food supply. It's the world's fastest growing food production activity. And globally, more than 25% of the odd fishing and shellfish production in 1999 was attributable to aquaculture. 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.

The biotech engineering has undergone three phases. In the first phase, people designed and made some simple machines, which aimed to help people understand ourselves. And first group of people that realized we could learn from ourselves were engineers. And then, based on the studies, people began to make complicated devices, in order to cure wounds, like the practice of suture, and to study physiology. This is the second phase. Later, since we went into the third phase, more complicated machines have been developed, like ECG (electrocardiography), able to have an insight of your internal body without intruding it, which can show the human brain's functions. X-ray is a good example. In an X-ray picture, you can see the bright area is the heart with some vessels around, and the dark area is the lungs. These devices benefit humans greatly in solving health problems, such as diseases.

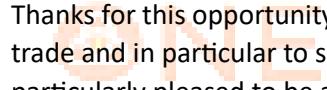
Morton Prince was an American physician and psychologist, his book 'Dissociation of a Personality' was the best-seller at that time. It tells a story of Miss Christine Beauchamp, who was suffering from MPD (Multiple Personality Disorder). Miss Christine Beauchamp has several types of personalities, namely B1, B2 and B3. There was hidden memory in these three personalities, with hallucination among them. Miss Beauchamp was B2. B2 knows about B1, B3 knows both B1 & B2, but B1 knows nothing about B2 or B3. The strongest personality accounts for most of the time and it will take over the others and become the main personality at the end. This case and theory gives great help to crime investigation.

Over the past five years, the wage growth is about five percent, which is very weak. Meanwhile consumption has grown by about fifteen percent, which seems decent. However, housing debt has increased by about forty percent, which is unusual, but can be understandable after the wage and consumption increase. The increase in wages is far from sufficient to cover the increase in consumption. The increase in consumption is not because of the increase in income, but because people are borrowing more money to buy homes. Although people's wages increase, most of the money will go against paying household debt, because people spend a lot of money at home.

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.

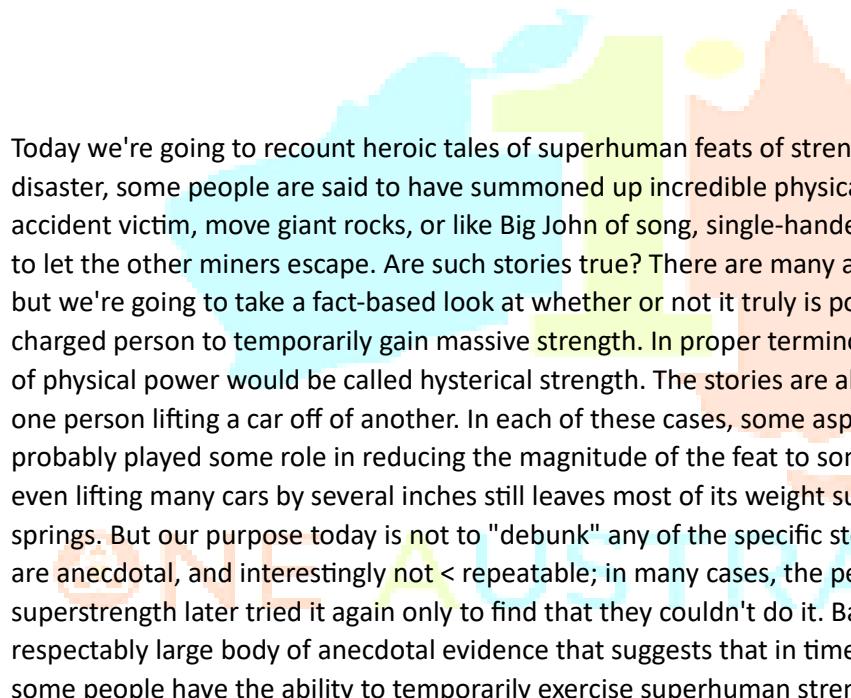


I'm just going to take on where stuff left off. The hormone I want to now talk about it's called melatonin. The synthesis is in the Pineal Gland, which is very small. It is the size of a pea in your brain. Descartes called it the 'seat of soul', and it is where melatonin is made. And it has a rhythm 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 it's 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.



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.

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 are feeling about eating lunch today.



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 superstrength 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.

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 stimulating and motivating to students. I'll also uncover many interesting research problems in the course of teaching assumption. It is this unity of research and teaching their close connection and the benefits garnered by exercising and the interplay that to me characterizes the successful professor.

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 ffrench-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.

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.

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."

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.

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 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 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.

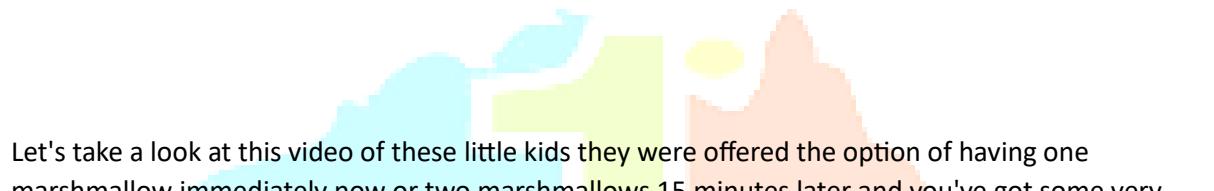
This is a kind of object that you're probably all familiar with when you had the term robot, but I'm gonna show you the very, very first robots. These were the very first robots. They were characters in a play in the 1920s called Rossum's Universal Robots and they, the play was written by Czech writer 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.

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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 these 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.

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.



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 or four it's not ever too late and any child can learn the many adult can teach them and it's never too late.

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 adults 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.

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, it'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 trillion trillion years to type just that phrase and a DNA string 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 favor of the Christian story in which God creating life, simply a question of saying let that be and there was.



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.

When this dog approaches some food, another dog's playful snarls are played back the dog seems curious, but the sound doesn't stop it from taking the bone. Here a dog hears the growls of a dog being approached by a stranger, but these don't deter it from grabbing the bone either. In another

scenario the sound of a dog protecting its food is played back. This time the dog backs off. These experiments suggest the dogs can distinguish between different types of growls.





ANSWER SHORT QUESTIONS



What do we call the clothes that need washing?

Answer: Laundry

What do we call the state of believing in oneself?

Answer: Confidence / confident / self-confidence / self-confident

How do dumb people communicate with others?

Answer: Body language / sign language

What are breakfast, lunch, and dinner examples of?

Answer: Meal

What do we call a collection of large quantity ?

Answer: Bulk

How many days does it take for a full moon to occur?

Answer: Thirty

What do you use in a nonverbal communication with expressions to convey a message effectively?

Answer: Body language / sign language

What do we call the behavior of not buying products from an exact company as a way of protesting?

Answer: Boycott

What do we call a small soft creature with a hard round shell on its back that moves very slowly?

Answer: Snail

What is full of water and separates continents?

Answer: Ocean

What will ice do when it is heated?

Answer: Melt

When you accelerate a car, what does your foot step on?

Answer: Gas pedal / accelerator / acceleration pedal / throttle

What do we call the money banks charge customers?

Answer: Interest

What do we call the sound or movement of the heart?

Answer: Beat / heartbeat

If you have an appointment on Wednesday, and today is Thursday, you will have the appointment 'yesterday' or 'tomorrow'?

Answer: Yesterday

What is the three-dimensional shape of circle?

Answer: Sphere / globe



What is the generic term for gold, silver and copper?

Answer: Metal

What is the colorful sticker that is attached to an envelope?

Answer: Stamp

What is the summary at the beginning of an academic paper called?

Answer: Abstract

What is the famous canal linking the Mediterranean Sea with the Indian Ocean?

Answer: Suez

What is the generic term for a person who once had the same title as you have now?

Answer: Predecessor

What type of body covering helps to insulate burns?

Answer: Dressing / bandage

What do we say if we call brothers and sisters in a same way?

Answer: Siblings

What is the portable breathing apparatus for divers?

Answer: Aqualung

If a driver drives the car, what does a pilot do to the plane?

Answer: Fly / flies

What type of work is a sabbatical a lengthy time away from?

Answer: Teaching

What do we call a statement presented in court by a defendant or a lawyer?

Answer: Plea

What is the straight line between the center of a circle and any point on its outer edge?

Answer: Radius

What geometric shape are circumference, diameter and radius related with?

Answer: Circle

What does the color green help for?

Answer: Sight / eyesight

Where do we try on a piece of clothing in a cloths shop?

Answer: Fitting room / changing room

What do you call the medicine that is used against headache?

Answer: Pain killer / painkiller

What do you eat when you are sick?

Answer: Medicine / pill / medication / tablet / drug

What do you call the brother of your father or mother?

Answer: Uncle

What do we call someone who travels and works in a spacecraft?

Answer: Astronaut / spaceman

What is the top surface inside the room?

Answer: Ceiling

What do you call your cousin's father?

Answer: Uncle

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

Answer: Graffiti

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

Answer: Elephant

What do we call the lenses which people use instead of glasses?

Answer: Contact lenses

What do we call the people who move from one country to another country, usually for work or a better life?

Answer: Migrants

What is a person called whose job is to write news for newspapers?

Answer: Journalist

If someone tells you the truth, what is the opposite?

Answer: Falsity / falseness / untruth

How do we describe the food that is not cooked?

Answer: Raw / uncooked

What do we call the line between a sunset and the sea?

Answer: Sea-sky-line / horizon

Which part of our body is related to the word "optical"?

Answer: Eye

 ONE AUSTRALIA

When we say someone is doing the B.A. in history or literature in the university, what does B.A. stand for?

Answer: Bachelor of arts

When you bake a cake, what do you put the cake into?

Answer: Oven

What is the barrier that can prevent floods from damaging our home?

Answer: Dam

What is the antonym of 'entrance'?

Answer: Exit

What includes everything in the world such as stars and planets?

Answer: Universe / cosmos

What does the word 'T V' stand for?

Answer: Television

Who flies an airplane?

Answer: Pilot

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

Answer: Dropout

What do we call a political institution or body that is responsible for a country?

Answer: Government

What is 'BA' for, such as history and literature?

Answer: Bachelor of arts



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

Answer: Abstract / summary

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

Answer: Chairman / chairwoman / chairperson

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

Answer: Unicorn

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

Answer: Storeroom

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

Answer: Key

What is the verb that describes traveling on boat?

Answer: Cruise / voyage / sail

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

Answer: Platform

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

Answer: Election

What is the opposite of horizontal?

Answer: Vertical

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

Answer: Tandem

 ONE AUSTRALIA

What fruit category includes orange, mandarin and lemon?

Answer: Citrus

What do we call a person who pays rent to the landlord?

Answer: Lessee / tenant





SUMMARIZE WRITTEN TEXT

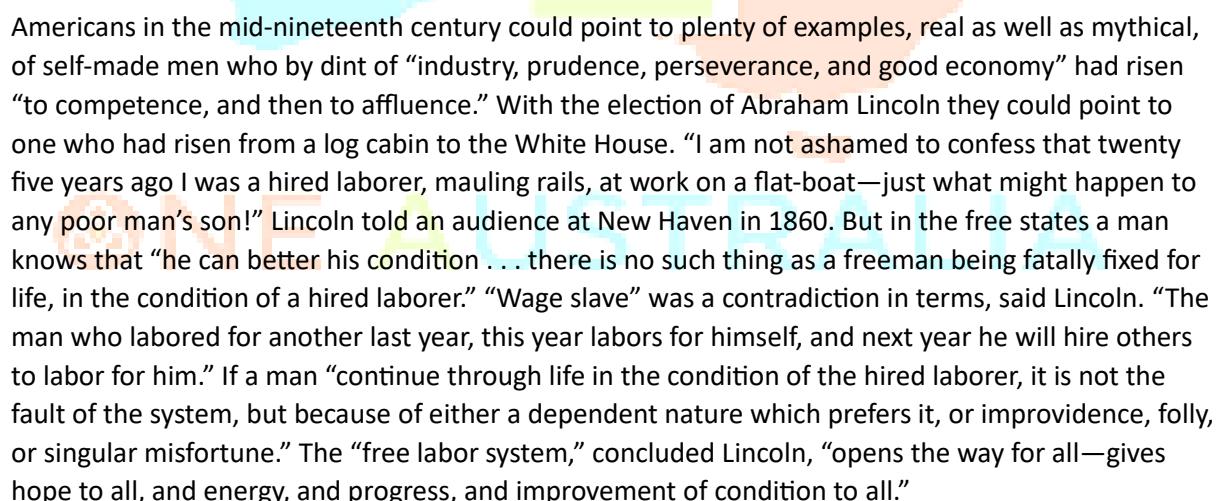
 **ONE AUSTRALIA**

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 A's in school as those who ate dinner with their families fewer than two times a week.



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.”

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 A.D. The Sotho-Tswana and Nguni peoples arrived in this region around 1,200 A.D. 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.

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.

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 archaeabacteria, which are also prokaryotes and which resemble true bacteria, represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria.

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.

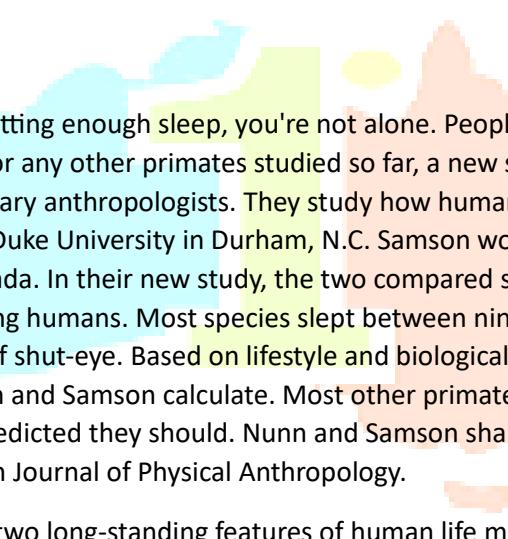
As a philosopher, mathematician, educator, social critic and political activist, Bertrand Russell authored over 70 books and thousands of essays and letters addressing a myriad of topics. Awarded the Nobel Prize in Literature in 1950, Russell was a fine literary stylist, one of the foremost logicians ever, and a gadfly for improving the lives of men and women.

He was arguably the greatest philosopher of the 20th century and the greatest logician since Aristotle. Analytic philosophy, the dominant philosophy of the twentieth century, owes its existence more to Russell than to any other philosopher. And the system of logic developed by Russell and A.N.

Whitehead, based on earlier work by Dedekind, Cantor, Frege, and Peano, broke logic out of its Aristotelian straitjacket. He was also one of the century's leading public intellectuals and won the Nobel Prize for Literature in 1950 "in recognition of his varied and significant writings in which he champions humanitarian ideals and freedom of thought."

Russell was involved, often passionately, in numerous social and political controversies of his time. For example, he supported suffragists, free thought in religion and morals, and world government; he opposed World War I and the Vietnam War, nationalism, and political persecution. He was jailed in 1918 for anti-war views and in 1961 for his anti-nuclear weapons stance.

He was married 4 times and had 3 children. With Dora Russell, he founded the experimental Beacon Hill School. He knew or worked with many of the most prominent figures in late 19th and 20th century philosophy, mathematics, science, literature, and politics.



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."

Banks provide short-term finance to companies in the form of an overdraft on a current account. The advantage of an overdraft is its flexibility. When the cash needs of the company increase with seasonal factors, the company can continue to write cheques and watch the overdraft increase. When the goods and services are sold and cash begins to flow in, the company should be able to watch the overdraft decrease again. The most obvious example of a business which operates in this pattern is farming. The farmer uses the overdraft to finance the acquisition of seed for arable

farming, or feed through the winter for stock farming and to cover the period when the crops or animals are growing and maturing. The overdraft is reduced when the crops or the animals are sold.

The main disadvantage of an overdraft is that it is repayable on demand. The farmer whose crop fails because of bad weather knows the problem of being unable to repay the overdraft. Having overdraft financing increases the worries of those who manage the company. The other disadvantage is that the interest payable on overdrafts is variable. When interest rates increase, the cost of the overdraft increases. Furthermore, for small companies there are often complaints that the rate of interest charged is high compared with that available to larger companies. The banks answer that the rates charged reflect relative risk and it is their experience that small companies are more risky.

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.

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.

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.

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.

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.

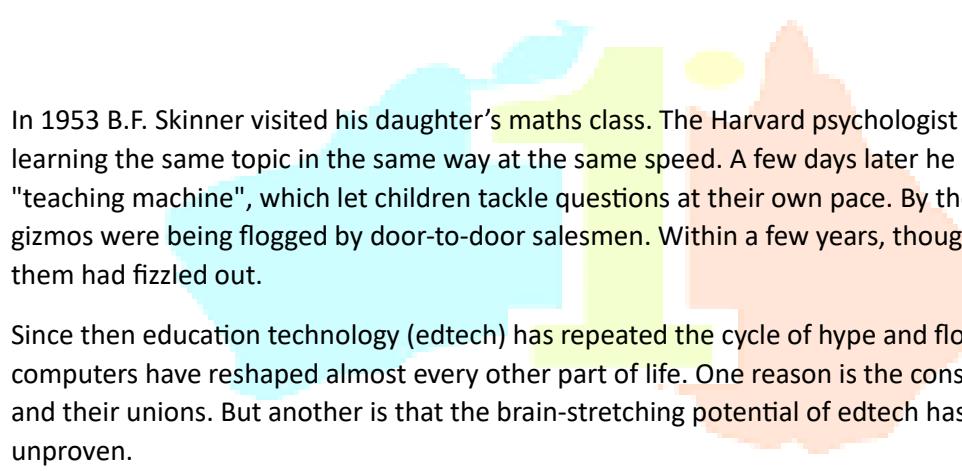
Of course, assessment is also used for other purposes in education, which makes the picture much more complicated. In all countries, assessments of the performance of individual students are used to determine which students are, and which students are not, qualified for subsequent phases of education, and also to decide which kinds of education students should receive.

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.

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.



In 1953 B.F. Skinner visited his daughter's maths class. The Harvard psychologist found every pupil learning the same topic in the same way at the same speed. A few days later he built his first "teaching machine", which let children tackle questions at their own pace. By the mid-1960s similar gizmos were being flogged by door-to-door salesmen. Within a few years, though, enthusiasm for them had fizzled out.

Since then education technology (edtech) has repeated the cycle of hype and flop, even as computers have reshaped almost every other part of life. One reason is the conservatism of teachers and their unions. But another is that the brain-stretching potential of edtech has remained unproven.

Today, however, Skinner's heirs are forcing the sceptics to think again (see article). Backed by billionaire techies such as Mark Zuckerberg and Bill Gates, schools around the world are using new software to "personalize" learning. This could help hundreds of millions of children stuck in dismal classes—but only if edtech boosters can resist the temptation to revive harmful ideas about how children learn. To succeed, edtech must be at the service of teaching, not the other way around.

The conventional model of schooling emerged in Prussia in the 18th century. Alternatives have so far failed to teach as many children as efficiently. Classrooms, hierarchical year-groups, standardized curriculums and fixed timetables are still the norm for most of the world's nearly 1.5bn schoolchildren.

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.

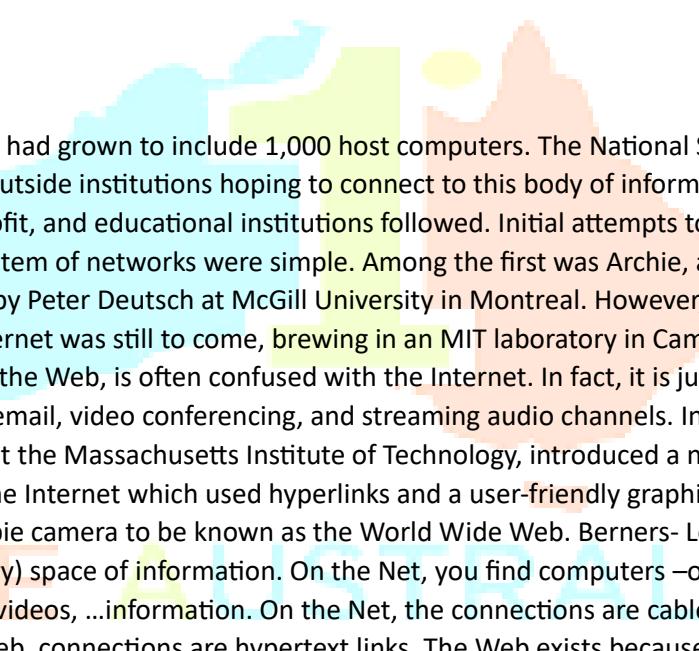
In some families, complaining is the only way to get attention. When one person says, I had a bad day; the other person has to top it, "You think you had a tough day. I had to do three TPS reports!" The same thing happens at work and social settings. "Your child didn't sleep through the night until 6

months? Mine was a full year old before she went over six hours." It's a race to the bottom, and 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 why 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.



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 camera 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."

Vitamin D refers to a group of fat-soluble secosteroids responsible for enhancing intestinal absorption of calcium, iron, magnesium, phosphate and zinc. In humans, the most important compounds in this group are vitamin D3 and vitamin D2. Cholecalciferol and ergocalciferol can be ingested from the diet and from supplements. Very few foods contain vitamin D; synthesis of vitamin D (specifically cholecalciferol) in the skin is the major natural source of the vitamin. Dermal synthesis of vitamin D from cholesterol is dependent on sun exposure Vitamin D from the diet or dermal synthesis from sunlight is biologically inactive; activation requires enzymatic conversion (hydroxylation) in the liver and kidney. Evidence indicates the synthesis of vitamin D from sun exposure is regulated by a negative feedback loop that prevents toxicity, but because of uncertainty about the cancer risk from sunlight, no recommendations are issued by the Institute of Medicine

(US), for the amount of sun exposure required to meet vitamin D requirements. Accordingly, the Dietary Reference Intake for vitamin D assumes no synthesis occurs and all of a person's vitamin D is from food intake, although that will rarely occur in practice. As vitamin D is synthesized in adequate amounts by most mammals exposed to sunlight[citation needed], it is not strictly a vitamin, and may be considered a hormone as its synthesis and activity occur in different locations. Vitamin D has a significant role in calcium homeostasis and metabolism. Its discovery was due to effort to find the dietary substance lacking in rickets.

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.

When Tim Berners-Lee invented the world wide web, he surely didn't anticipate that children would end up becoming some of its main users. Most start using the internet at the average age of three – and as recent research shows, children now spend more time playing and socializing online than watching television programs. Given this change in habits, it is not surprising that a recent House of Lords report has raised online safety and behavior as an important issue. The report said that for children, learning to survive in a world dominated by the internet should be as important as reading and writing. The House of Lords Communications Committee also warned that children should not be leaving school without "a well-rounded understanding of the digital world". It also suggested that the government should think about implementing new legal requirements and a code of conduct companies would have to adhere to, which would help to bring the internet up to "child-friendly standards". Of course, trying to rectify this lack of child-centered design is not an easy task, but one that requires the cooperation and goodwill of many sectors. It will need to involve consultation with technology, education, legal and policy experts. And it would also be a good idea to make children and young people part of the process.

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.

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.

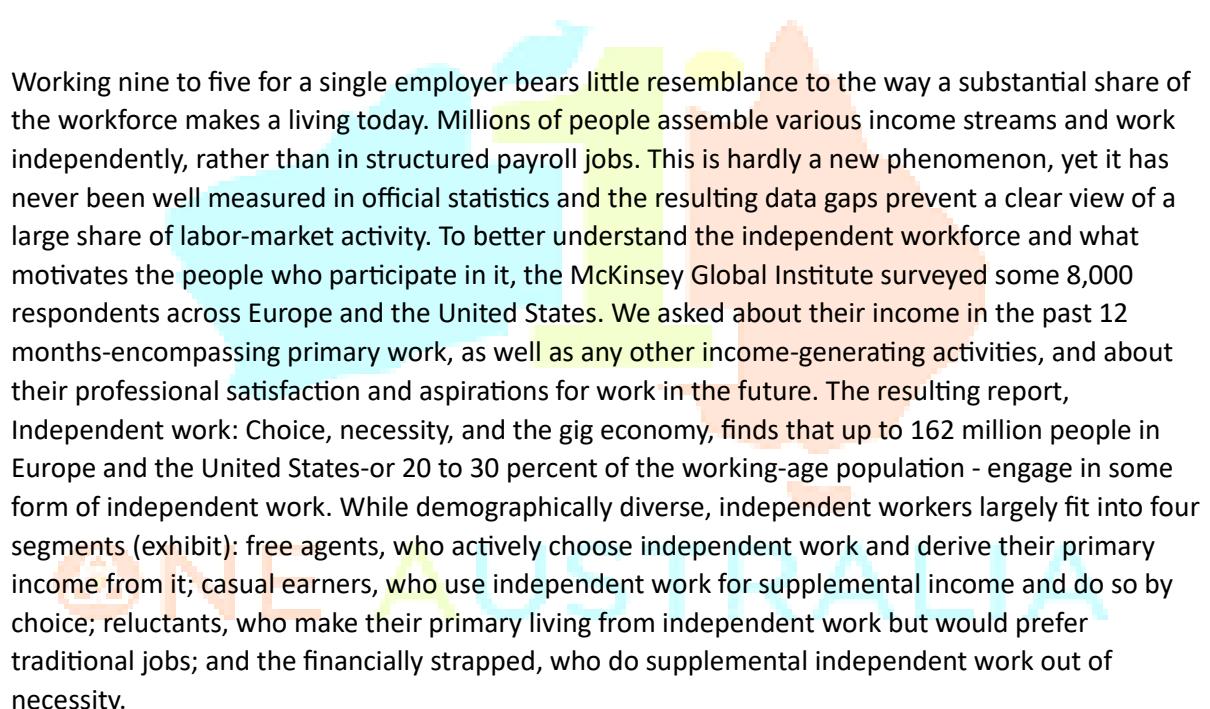
This rule applies to any area where you feel insecure. Read and research as much about the topic as possible. This will help increase your confidence enough to give the activity a try to see if you might be able to become better at it. And that initial confidence to take action is all you need to get the ball rolling and overcome your shyness.

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.

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.

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.



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; reluctants, 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.

"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.

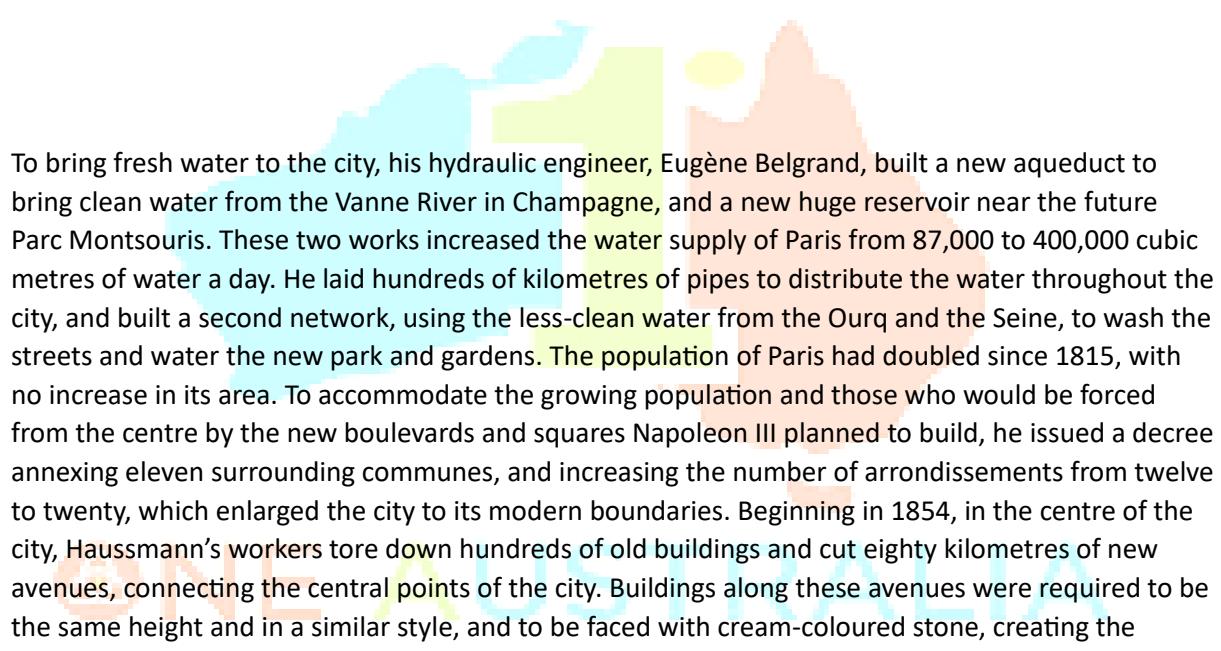
Ecology is the study of interactions of organisms among themselves and with their environment. It seeks to understand patterns in nature (e.g., the spatial and temporal distribution of organisms) and the processes governing those patterns. Climatology is the study of the physical state of the atmosphere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

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.

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.



To bring fresh water to the city, his hydraulic engineer, Eugène Belgrand, built a new aqueduct to bring clean water from the Vanne River in Champagne, and a new huge reservoir near the future Parc Montsouris. These two works increased the water supply of Paris from 87,000 to 400,000 cubic metres of water a day. He laid hundreds of kilometres of pipes to distribute the water throughout the city, and built a second network, using the less-clean water from the Ourq and the Seine, to wash the streets and water the new park and gardens. The population of Paris had doubled since 1815, with no increase in its area. To accommodate the growing population and those who would be forced from the centre by the new boulevards and squares Napoleon III planned to build, he issued a decree annexing eleven surrounding communes, and increasing the number of arrondissements from twelve to twenty, which enlarged the city to its modern boundaries. Beginning in 1854, in the centre of the city, Haussmann's workers tore down hundreds of old buildings and cut eighty kilometres of new avenues, connecting the central points of the city. Buildings along these avenues were required to be the same height and in a similar style, and to be faced with cream-coloured stone, creating the signature look of Paris boulevards. Napoleon III also wanted to build new parks and gardens for the recreation and relaxation of the Parisians, particularly those in the new neighbourhoods of the expanding city. Napoleon III's new parks were inspired by his memories of the parks in London, especially Hyde Park, where he had strolled and promenaded in a carriage while in exile; but he wanted to build on a much larger scale. Working with Haussmann and Jean-Charles Alphand, the engineer who headed the new Service of Promenades and Plantations, he laid out a plan for four major parks at the cardinal points of the compass around the city. Thousands of workers and gardeners began to dig lakes, build cascades, plant lawns, flowerbeds and trees, construct chalets and grottoes. Napoleon III created the Bois de Boulogne (1852-1858) to the west of Paris: the Bois de Vincennes (1860-1865) to the east; the Parc des Buttes-Chaumont (1865-1867) to the north, and Parc Montsouris (1865-1878) to the south.

The worldwide population of wild giant pandas increased by 268 over the last decade according to a new survey conducted by the government of China. The increase in population brings the total

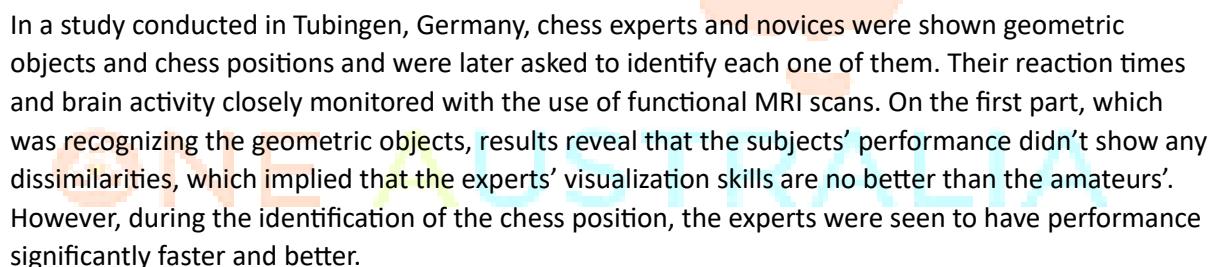
number of wild giant pandas to 1864. The population increase represents 16.8% rise compared to the last panda survey in 2003. Wild giant pandas, a global symbol of wildlife conservation, are found only in China's Sichuan, Shanxi and Gansu provinces.

According to the report, formally known as the Fourth National Giant Panda Survey, the geographic range of pandas throughout China also increased. The total area inhabited by wild giant pandas in China now equals 2,577,000 hectares, an expansion of 11.8% since 2003.

"These results are a testament to the conservation achievements of the Chinese government," said Xiaohai Liu, executive director of programs, WWF- China. "A lot of good work is being done around wild giant panda conservation, and the government has done well to integrate these efforts and partner with conservation organizations including WWF.

The report, the fourth in a series of decadal (10- year) surveys conducted by the State Forestry Administration of China, began in 2011 with financial and technical support from WWF. Much of the success in increasing the panda population comes as a result of conservation policies implemented by the Chinese government, including the Natural Forest Protection Project and Grain for Green.

The report found that 1,246 wild giant pandas live within nature reserves, accounting for 66.8% of the total wild population, and the habitat within nature reserves accounts for 53.8% of the total habitat area. There are currently 67 panda nature reserves in China, an increase of 27 since the last report.



In a study conducted in Tübingen, Germany, chess experts and novices were shown geometric objects and chess positions and were later asked to identify each one of them. Their reaction times and brain activity closely monitored with the use of functional MRI scans. On the first part, which was recognizing the geometric objects, results reveal that the subjects' performance didn't show any dissimilarities, which implied that the experts' visualization skills are no better than the amateurs'. However, during the identification of the chess position, the experts were seen to have performance significantly faster and better.

As the researchers geared toward an element of a study previously conducted on pattern and object recognition by the chess experts, they had anticipated to notice areas of the left hemisphere of the experts' brains (involved in object recognition) to be more reactive when they performed the tasks. However, the reaction times of the subjects were virtually identical. The very thing that sets the experts apart from the amateurs is that the former's right brain hemispheres (involved in pattern recognition) were seen to have also lit up during the activity. Therefore, both sides of the experts' brains were active, processing information in two places simultaneously. The researchers added that when they showed the chess diagrams to the subjects, they observed that the amateur relied on looking at the pieces intently to be able to recognize them, whereas the experts merely relied on their peripheral vision and looked across the boards.

Scientists have worked for many years to unravel the complex workings of the brain. Their research efforts have greatly improved our understanding of brain function. During the past decade alone,

scientific and technical progress in all fields of brain research has been astonishing. Using new imaging techniques, scientists can visualize the human brain in action. Images produced by these techniques have defined brain regions responsible for attention, memory, and emotion. A series of discoveries (in multiple fields of study) has displaced the long-standing assumption that brain cells are stable and unchanging. Amazingly, new findings show that some adult brain cells can divide and grow! In addition, advances in research are allowing scientists to analyze and make progress toward understanding the causes of inherited brain disorders such as Alzheimer's disease and Parkinson's disease. Taken together, these discoveries provide hope for the recovery of nervous system function lost through injury or disease. Despite these and other significant advances in the field of brain research, most of the processes responsible for the integrated functioning of billions of brain cells remain a mystery. Research on the brain in the new millennium is crucial to our effort to come to a complete understanding of this fascinating organ. In turn, improved understanding makes the development of new treatment options possible. Research continues to bring new insights into how the brain is put together, how it works, and whether damage to the brain can be reversed.

Their trade networks made the Phoenicians rich but also enabled cultural exchange and transfer between East and West in an unprecedented way: the most significant was the spread of the alphabetic script which was adopted all over the Mediterranean.

The Phoenician alphabet is a writing system consisting of only 22 signs representing exactly one sound (phoneme) each. The term "alphabet" derives from the names of the first two signs in the sequence, aleph ("cattle") and beit ("house"): these names also reflect the letters' shapes, each derived from the picture of an object whose name starts with the relevant sound.

The alphabetic script is simple enough to learn quickly, without the years of dedicated training required to master writing systems such as cuneiform or Egyptian hieroglyphs. Specialised schooling was unnecessary, and literacy was therefore disengaged from the institutional context of palaces and temples where the traditional scripts continued to be used. The alphabet suited the needs of long-distance merchants who needed to be able to record their business affairs on the go and who, for reasons of confidentiality and money, often preferred to write themselves rather than employ a specialist scribe. As the script could easily be used to record any language, it was, in the course of the first millennium BC, adapted for Aramaic, Hebrew, Greek, Phrygian, Lydian, Etruscan and Latin, to name but a few.

Coffee is enjoyed by millions of people every day and the 'coffee experience' has become a staple of our modern life and culture. While the current body of research related to the effects of coffee consumption 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 benefits of moderate coffee drinking outweigh the risks in adult consumers for the majority of major health outcomes considered. Researchers at Ulster University systematically reviewed 1,277 studies from 1970 to-date on coffee's effect on human health and found the general scientific consensus is that regular, moderate coffee drinking (defined as 3-4 cups

per day) essentially has a neutral effect on health, or can be mildly beneficial. The authors noted causality of risks and benefits cannot be established for either with the research currently available as they are largely based on observational data. Further research is needed to quantify the risk-benefit balance for coffee consumption, as well as identify which of coffee's many active ingredients, or indeed the combination of such, that could be inducing these health benefits.

Life expediencies have been rising by up to three months a year since 1840, and there is no sign of that flattening. Lynda Gratton 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, Gratton and Scott show that under the current system it is almost certain you wont 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 50percent of your final salary, and you save 10 percent of your earnings each year, they calculate that you wont be able to retire till your 80s. People with 100-year life expediencies must recognize they are in for the long haul, and make an early start arranging their lives accordingly. But how to go about this? Gratton 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.

The English have the reputation of being a nation of tea drinkers, but this wasn't always the case. By the end of the 17th century, the English were the biggest coffee drinkers in the Western world, and coffee houses became the places to be seen. As well as gossip, you could pick up talk of the latest intellectual developments in science, politics, and so on, in this age of scientific discovery and progress. At first coffee houses were very basic; a room with a bar at one end and a few plain tables and chairs. Customers paid a penny for a bowl -- not a cup -- of coffee. A polite young woman was usually in charge of the bar because it was thought her presence would ensure that the customers didn't use bad language or cause any trouble. An added attraction was that coffee houses provided free newspapers and journals.

But people didn't go to the coffee houses just to drink coffee. They went to talk. They soon developed from simple cafes, where anyone with a penny could go for a drink and a chat, into clubs. People started to go to coffee houses where they would find other people who had the same jobs or who shared their interests and ideas, to talk and conduct business.

The great popularity of coffee houses lasted about a hundred years. In the later 18th century, increased trade with other countries made such luxuries as coffee cheaper and more easily available to the ordinary person. As a result people started to drink it at home. Also at this time more tea was imported from abroad, and the century of the coffee house was replaced by the domestic tea-party as the typical English social occasion.

For those political analysts whose main interest remains class divisions in society the biggest split these days is that between those who control and work with informational technology (IT) and those we might still call blue-collar workers. The old divisions of class have become a lot more difficult to apply, if not completely outdated. There's no escaping the enormous impact of information technology in the late 20th and, even more, the early 21st centuries, both economically and socially.

During the scientific revolution of the 17th and 18th centuries, the spirit of experiment was in the air, and those involved were practical people working to practical ends — often on their own or with a small group of trusted friends. Secrecy was important as there was money to be made in new inventions.

What interested them were results, not theories. Most modern technological advances, however, were developed as theories first, and then made reality by large teams of scientists and experts in the field. What we have now is that more and more of this type of expertise is being used to analyse and find solutions to all kinds of business and social problems, thus creating — in the eyes of the political analysts mentioned above — a whole large new economic and social class.

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.

The saying "The camera never lies." has been with us almost since the beginning of photography — yet we all now know that it can, and does lie, and very convincingly. Yet most of us still seem to trust the truth of a photographic image — especially in our newspapers or on TV news reports — even though we may question its message. We think of photographs as an accurate reflection of unaltered reality. We're convinced of this when we take unposed snaps on our family holidays or of colleagues the worse for wear at the office party. It is this property of photography that makes it hard to question the evidence before our eyes.

Our holiday snaps, though, like photographs showing life ten, fifty, a hundred years ago, tend only to bring about at most a feeling of nostalgia — not always a negative emotion. Many people keep albums to relive the better moments of their lives — and their impact is reduced by the fact that what they show is over, part of history. News photos, on the other hand, in presenting moments of an event that is probably still going on somewhere, must provoke a more vivid, emotional response.

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.

Many people have problems with irony, both in their everyday lives and as it is used or deployed in literature. We learn early on at school about "dramatic irony", that is, we are told, when the audience of a play is aware of some situation or circumstance, or has information that one or more characters in the play do not. If you like, you are sharing a secret with the writer — you are in the know. Perhaps, as you go about your daily business, irony is not so clear-cut.

Here's an example: your neighbour draws your attention to how lovely the dandelions and daisies growing in your lawn are. Now, to someone not familiar with the care and attention many English people give to their gardens, this might need a bit of explanation. Lawns are grass, and are cut and rolled regularly so that a professional golfer could practice his putting on it. Daisies and dandelions are weeds. For a moment — but just for a moment — you wonder how serious your neighbour is being. Does he really think the weeds are lovely or is he telling you — in a rather superior way — that you're a lousy gardener?

Irony, however, usually needs an audience; and not only does it need some people to get the point, it also very much needs there to be people who don't. There is, it has to be said, a rather undemocratic air of superiority about it.

Irony is slippery, sometimes difficult to get a firm hold on, and can easily backfire, like a joke that falls flat. Those who don't like irony — usually those who don't get the point — argue that, in a world that is already difficult enough to deal with, why should we want to complicate things further? Why throw everything you say into doubt? Besides, there's an unpleasant air of intellectual snobbery about it, and that sort of thing doesn't go down well any more.

It wasn't until the 19th century that Britain had a police force as we know it today. In medieval times, the maintenance of law and order was in the hands of local nobles and lords who were expected to keep the peace in their own land, and they would often appoint "constables" to police it. For a long time policing remained an unpaid activity or was paid for privately, either by individuals or organizations. There were also people who made a living as "thief takers". They were not paid wages, but were rewarded by a proportion of the value of the stolen possessions they recovered. Later, in London, where the population was rapidly increasing crime was rising, night-watchmen — the first paid law enforcement body — were created and worked alongside the unpaid, part-time constables.

Britain, then, was slower to create and develop a police force than the rest of Europe: France had one long before — indeed, the word police is taken from the French. This fact was not unimportant, as the very idea of a police force was seen as foreign — that is, French — and particularly undesirable, and was generally regarded as a form of oppression.

It was not until Robert Peel set up his "new police" as a separate force in 1829 that policemen began to replace the old part-time constables. Sir Robert "Bobby" Peel's own name provided two common nicknames for the new force: "Peelers" or "Bobbies". These names seem mild, if not affectionate, and are possibly an interesting gauge of how the police were viewed by people at the time, in contrast with the kind of names they get called these days.

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. maths, 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 randomised 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 standardised and comparable tests; and some programmes 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 programmes have small, but beneficial, positive impacts on cognitive performance. However, this study concludes that as experimental rigour decreased, effect size increased. Further, generalisation 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.

Is the purpose of history to promote a strong national identity and support national myths? Certainly, it has been used in this way for centuries, and this is often reflected in the history curriculum. We can

all remember history at school as being a matter of learning lots of facts and dates, and long lists of kings and queens - a grand narrative of how we got from a not so civilized past to the great nation we are today. Putting aside the fact that national identity is a complex and divisive question - especially in countries like the UK, which is comprised of several nationalities - this approach to history emphasizes a broad understanding, rather than a detailed understanding.

Yet history is, or should be, a critical, skeptical discipline: some historians see their work as disproving myths, demolishing orthodoxies, and exposing politically-motivated narratives which claim to be objective. What students need to develop are more critical and analytical skills; in other words, to think for themselves. They can do this by studying certain historical problems in depth. This involves being critical of the narratives presented by historians and skeptical of the myths preserved in the national memory.

How do we measure efficiency? To economists - or to a certain type of economist - it is simply a question of profitability, even when it concerns what most people consider a social provision such as public transport. What is lost when railway lines and bus routes to small, out-of-the-way communities are cut in the name of efficiency? After all, if a line or a route is only used occasionally by a few people, it would be much cheaper to rip up the lines and let everyone use their cars.

For many governments, the way to turn inefficient national services into profitable businesses has been to sell off these services - and their responsibilities - to private enterprises. Cost, in terms of profit and loss, is of course an important factor, but other factors need to be considered when dealing with the livelihoods of whole communities, however small. Among these are the social, environmental, human and cultural costs incurred by cutting off more remote communities from greater opportunities, including economic activities that benefit society as a whole.

Taking away such links - the usual result of privatization - may well lead to economic benefits in the short term, but, as the last twenty to thirty years have shown, also leads to long-term social and cultural damage. Of course, no business with its eye on profits is going to "waste" money supporting underused services. Only large collective bodies such as national and local governments can do that. These services are, after all, a social provision, not businesses.

Humans have been cultivating chilies as food for 6,000 years, but we are still learning new things about the science behind their heat and how it reacts with our body. In the late 1900's, scientists identified the pain nerves that detect capsaicin: the chemical in chillies responsible for most of the burning sensation in our mouth. But it's only during the last few years that scientists have also learnt why chillies evolved to be spicy in the first place, and they have managed to cultivate new varieties that are up to 300 times hotter than the common Jalapeno.

The hottest part of a chili is not the seeds, as many people think, but the white flesh that houses the seeds, known as the placenta. But why did chillies evolve to be hot in the first place? Most scientists believe capsaicin acts mainly as a deterrent against would-be mammal predators such as rodents. But recent research suggests this may not be the whole story. US scientists working in Bolivia have

studied how hot and mild chillies differ in their susceptibility to a certain harmful fungus. It turns out that the hotter the chilli, the better its defences against the fungus, leading the researchers to propose that heat may have evolved to help chillies deal with harmful microbes, as well as hungry mammals.

We know that Shakespeare took whole chunks of Plutarch word for word to use in his Roman plays — though, of course, in doing so he turned them into great poetry. Does this make Shakespeare a plagiarist? Was he a word thief?

In its legal definition, plagiarism includes "both the theft or misrepresentation of intellectual property and the substantial textual copying of another's work". But it is also considered to be a factor of a particular culture or time — that is, in some cultures and in some periods the idea was undefined — which makes it harder to identify precisely. However, the main problem these days is plagiarism in academic writing, which is becoming increasingly common, due to the vast amount of material that has been published which can be accessed via the Internet. This easy access, coupled with the increasing pressure put on students, has led to a rapid rise in incidents of plagiarism. It comes down to who owns the intellectual property in question, and with the advent of the Internet this has become less clearly defined.

By far the most popular and most consumed drink in the world is water, but it may come as no surprise that the second most popular beverage is tea. Although tea was originally grown only in certain parts of Asia — in countries such as China, Burma and India — it is now a key export product in more than 50 countries around the globe. Countries that grow tea, however, need to have the right tropical climate, which includes up to 200 centimeters of rainfall per year to encourage fast growth, and temperatures that range from ten to 35 degrees centigrade. They also need to have quite specific geographical features, such as high altitudes to promote the flavor and taste of the tea, and land that can offer plenty of shade in the form of other trees and vegetation to keep the plants cool and fresh. Together these conditions contribute to the production of the wide range of high-quality teas that are in such huge demand among the world's consumers. There is green tea, jasmine tea, earl grey tea, pepper mint tea, tea to help you sleep, tea to promote healing and tea to relieve stress; but above all, tea is a social drink that seems to suit the palates and consumption habits of human beings in general.

A company in the USA is paying its employees to sleep more. Staff at the insurance company Aetna will get \$300 a year added to their salary if they get at least seven hours of sleep a night. That works out to just over an extra dollar for each night the employee sleeps over seven hours. The idea behind this scheme is employee performance. Human resources officials say employees will work better if they have slept well. They add that a workforce that is more awake and alert will mean the company

will perform better. Staff can either record their sleep automatically using a wrist monitor that connects to Aetna's computers, or manually record how long they have slept every night.

There are a number of studies that warn that not sleeping enough can affect our ability to do our job. The American Academy of Sleep Medicine said that the average worker in the USA loses 11.3 working days of productivity a year because of not getting enough sleep. This costs companies about \$2,280 for one worker. It estimates that the US economy loses \$63.2 billion a year because workers do not sleep more than seven hours a night. A 2015 study in Europe by the Rand Corporation found that staff who slept less than seven hours per night were far less productive than workers who had eight or more hours of sleep. The staff at Aetna also receive extra cash if they do exercise.

Twin studies have been very useful in giving us information about whether our genes or our environment makes us who we are. A surprising result is the way that genes influence our work. At a basic level, our genes affect how we look and so they influence whether we can become a basketball player or a supermodel, for example. However, there is evidence that genes influence our job choice in much greater ways.

Research shows that identical twins choose more similar jobs than non-identical twins. In fact, identical twins who have grown up apart choose more similar jobs than non-identical twins who have grown up together. Studies also show that identical twins suggest that our genes affect both the satisfaction that comes from doing a job and satisfaction that comes from working conditions such as a person's pay or their manager.

So what does this mean? It means that from birth, you are more likely to prefer one occupation to another and find certain jobs more satisfying than others. However, genes are not the only factor. Other things in your life, such as family background and education, will also be influential in your career choices.

A large new study has found that people who regularly took a siesta were significantly less likely to die of heart disease.

"Taking a nap could turn out to be an important weapon in the fight against coronary mortality," said Dimitrios Trichopoulos of the Harvard School of Public Health in Boston, who led the study published yesterday in the Archives of Internal Medicine.

The study of more than 23,000 Greek adults -- the biggest and best examination of the subject to date found that those who regularly took a midday siesta were more than 30 percent less likely to die of heart disease.

Other experts said the results are intriguing. Heart disease kills more than 650,000 Americans each year, making it the nation's No. 1 cause of death.

"It's interesting. A little siesta, a little snooze may be beneficial," said Gerald Fletcher, a cardiologist at the Mayo Clinic in Jacksonville, Fla., speaking on behalf of the American Heart Association. "It's simple, but it has a lot of promise."

While more research is needed to confirm and explore the findings, there are several ways napping could reduce the risk of heart attacks, experts said.

"Napping may help deal with the stress of daily living," said Michael Twery, who directs the National Heart Lung and Blood Institute's National Center on Sleep Disorders Research. "Another possibility is that it is part of the normal biological rhythm of daily living. The biological clock that drives sleep and wakefulness has two cycles each day, and one of them dips usually in the early afternoon. It's possible that not engaging in napping for some people might disrupt these processes."

Researchers have long known that countries such as Greece, Italy and Spain, where people commonly take siestas, have lower rates of heart disease than would be expected. But previous studies that attempted to study the relationship between naps and heart disease have produced mixed results. The new study is first to try to fully account for factors that might confuse the findings, such as physical activity, diet and other illnesses.

"This study has a number of advantages," Trichopoulos said. He and colleagues at the University of Athens examined 23,681 Greek men and women ages 20 to 86 who had no history of heart disease or any other serious health problem when they enrolled in the study between 1994 and 1999. The researchers asked the participants whether they took midday naps and, if so, how often and for how long. They also asked detailed questions about their health and lifestyles, such as whether they had any illnesses that might make them sleep more, how much exercise they got and what they ate.

After an average of more than six years of follow-up, 792 of the study subjects died, including 133 who died of heart disease. Of that group, 94 were nappers. After the researchers accounted for factors that could confuse the issue, they found that those who took naps frequently were 34 percent less likely to die of heart disease than those who did not. The biggest nappers-79 people who took a siesta for 30 minutes or more at least three times a week-had a 37 percent lower risk.

Naps appeared to offer the most protection to working men: Those who took midday siestas either occasionally or systematically had a 64 percent lower risk of death from heart disease. Non-working men had a 36 percent reduction in risk. A similar analysis could not be done in women because too few died of heart disease.

Getting to know fellow academics, especially more senior ones, can be very daunting. Lecturers and researchers are used to spending a lot of time in isolation working independently. The thought of going public and 'selling yourself' does not seem enticing. However, it is easier than you think to begin to develop your own career-enhancing networks. Your PhD supervisor and examiners or if you are already in post, your mentor, are a great place to start. They will have been chosen to guide you because they are more experienced and in most cases they will work close to your field of interest. Ask their advice for ways of building up your own network of contacts. Also it is easier to approach someone unknown to you if you can mention the name of a mutual acquaintance.

If you are a postgraduate who is serious about a career in academia, or a more senior scholar wanting to develop one, you will surely be attending conferences on a fairly regular basis. There is no right or wrong number of these, some scholars stick to one or two a year, others seem to attend one a month! Conferences are the main way that academics network with each other, so do not miss out on these opportunities. If you are presenting a paper it gives others a chance to see what you are

working on, and the informal sections of the programme (such as food and drink breaks) encourage mingling and further discussion.

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. Holly 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 a 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."

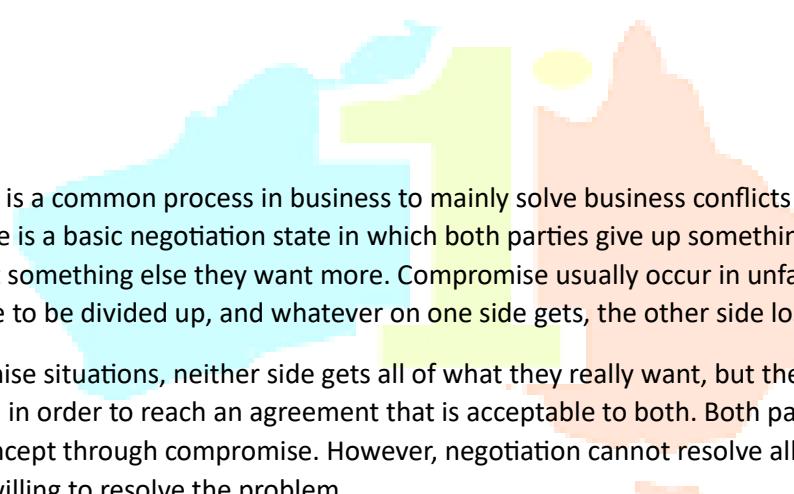
Sleeping in on the Weekend

Sleeping in on the weekend is a common activity for many people, but it can have negative effects on your health and well-being. When you sleep in on the weekend, you are likely to sleep longer than you do during the week. This can lead to a disruption in your sleep patterns, which can affect your energy levels, mood, and cognitive function. Additionally, sleeping in on the weekend can lead to a decrease in physical activity, which can contribute to weight gain and other health problems. It is important to maintain a consistent sleep schedule, even on weekends, to ensure that you are getting enough sleep and maintaining good health.

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-Burgeson recommends choosing a cereal that's low in sugar — less than five grams per serving — and using nonfat or one percent milk. Frederick Hirshburg, 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, Hirshburg says.

It's important to realise 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 colours — 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 colours (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 colour image). However, unlike magazine images, the image that we see with our eyes is broken down not only into separate colour 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.



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 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.

ONE AUSTRALIA

The shipping container is one of the mainstays of international trade. The globalised modern economy depends on the rapid and efficient movement of goods that containerisation allows. In many ways it was the advent of the container that allowed this globalised economy to develop.

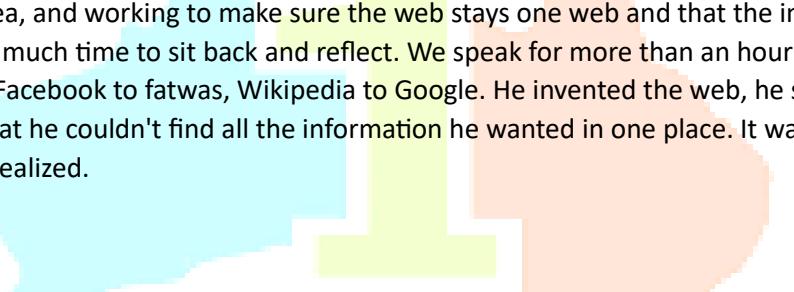
Invented during World War two as an efficient method of moving equipment to the front lines, there are now at any one time up to 15 million containers being used to transport goods on land and sea or waiting to be filled at factories and ports. They are vital in the supply chain and have allowed the added efficiency of "just in time" inventory management, where companies no longer keep large warehouses of stock or parts, but rely on the ability to quickly order what they want from their suppliers. It is estimated that since the 1980s the ratio of inventory to GDP in American business has fallen from 25% to 15%. Altogether total business inventory in the US is estimated at \$1.5 trillion, without "just in time" management methods this might be as much as \$2.5 trillion.

This means that companies rely more and more on the prompt delivery of parts from their suppliers to fulfill orders. This is particularly true of industries such as computer manufacture, which no longer make all the parts of the products that bear their names, but instead outsource, often to suppliers half way around the world. American computer manufacturers are, for example, increasingly dependent on Asian microchip manufacturers in countries such as Taiwan and Thailand.

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.

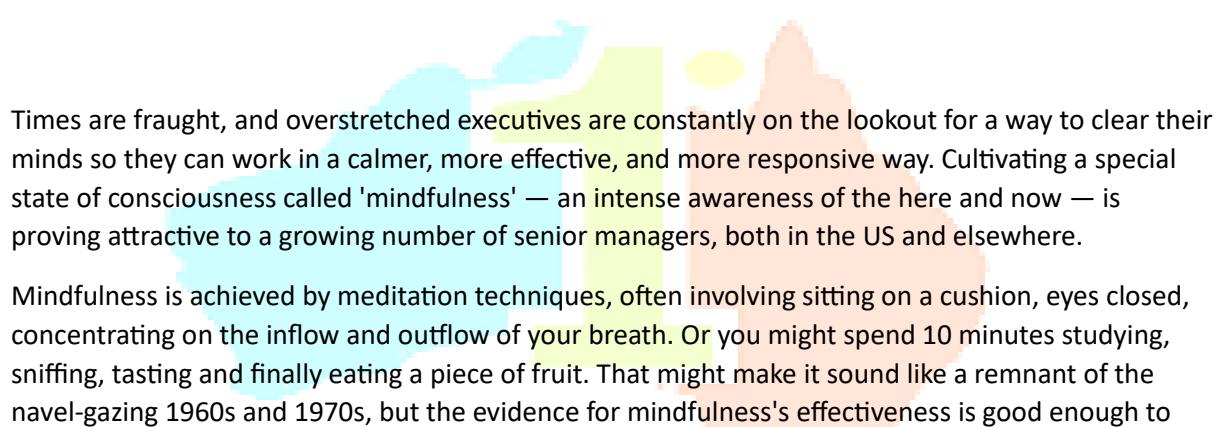


The suburbs of Las Vegas do not look like the cradle of a revolution. Golden stucco-clad houses stretch for street after identical street, interspersed with gated communities with names such as Spanish Oaks and Rancho Bel Air. The sky is the deepest blue, the desert air is clear and the distant mountains are beautiful. The only sounds are the buzz of a gardener's hedge trimmer and a squeaking baby buggy pushed by a power-walking mother. The bright lights of Sin City seem a very long way away. Yet these quiet streets are being changed by a movement that is gathering momentum across America and around the world, challenging one of the most fundamental of economic relationships: the way we use and pay for energy. There are now more than 7,000 homes in Nevada fitted with solar panels to generate their own electricity, and the number is rising fast. Just five years ago, residential solar power was still a niche product for the homeowner with a fat wallet and a bleeding heart. Not anymore. Technology, politics and finance have aligned to move it into the mainstream. Solar power has become the fastest-growing energy source in the US.

For decades the electricity industry has been a cautious and conservative business, but the plunging prices of solar panels, down by about two-thirds in the past six years, have woken it up with a bang. Dynamic rooftop solar power companies have entered the market, in the most radical change to electricity supplies since the industry was born in the 19th century. It has been described as the equivalent of the mobile revolution in telephony, or the PC in computing.

What killed off the dinosaurs? The end of the Cretaceous Period saw one of the most dramatic mass extinctions the Earth has ever seen. The fossil record shows that throughout their 160-million-year

existence, dinosaurs took on a huge variety of forms as the environment changed and new species evolved that were suited to these new conditions. Others that failed to adapt went extinct. But then 66 million years ago, over a relatively short time, dinosaurs disappeared completely (except for birds). Many other animals also died out, including pterosaurs, large marine reptiles, and other sea creatures such as ammonites. Although the number of dinosaur species was already declining, this suggests a sudden catastrophic event sealed their fate, causing unfavourable changes to the environment more quickly than dinosaurs and other creatures could adapt. The exact nature of this catastrophic event is still open to scientific debate. The catastrophe could have been an asteroid impact, volcanic eruptions or the effect of both, together with more gradual changes in the Earth's climate over millions of years. Whatever the causes, the huge extinction that ended the age of the dinosaur left gaps in the ecosystem that were subsequently filled by mammals and birds, allowing them to evolve rapidly.



Times are fraught, and overstretched executives are constantly on the lookout for a way to clear their minds so they can work in a calmer, more effective, and more responsive way. Cultivating a special state of consciousness called 'mindfulness' — an intense awareness of the here and now — is proving attractive to a growing number of senior managers, both in the US and elsewhere.

Mindfulness is achieved by meditation techniques, often involving sitting on a cushion, eyes closed, concentrating on the inflow and outflow of your breath. Or you might spend 10 minutes studying, sniffing, tasting and finally eating a piece of fruit. That might make it sound like a remnant of the navel-gazing 1960s and 1970s, but the evidence for mindfulness's effectiveness is good enough to have impressed hard-nosed companies such as Google (which has invited mindfulness gurus to speak at the Googleplex), General Mills, PricewaterhouseCoopers, Deutsche Bank, Procter & Gamble, AstraZeneca, Apple, Credit Suisse, KPMG, Innocent, Reuters and many more.



According to Don McCormick, assistant professor of management at California State University and a dedicated meditator, it 'can help individuals to manage workplace stress, perform tasks more effectively, enhance self-awareness and self-regulation, experience work as more meaningful, improve workplace relationships, increase ethical behavior, and make perception more accurate'. It is said to pay dividends for leaders and managers, by improving the quality of their listening and communicating.

Tradition and commerce often clash in many cultures. In Trinidad, it is the Carnival that is the cause of current friction. The complaint, as you would expect, is that traditional skills and creativity are being lost in the rush to make profits. And the profits are large: the two-day festival, which attracts up to 40,000 tourists each year, is estimated to generate somewhere between \$27 million and \$100 million.

A particular problem for the traditionalists is that the extravagant colorful costumes people wear in the bands or processions are now largely being imported, especially from China. These costumes are cheaper and more revealing (another cause of complaint) than those made locally. Critics say these imports are a threat to traditional creations and, worse, mean sending work elsewhere. Others see

turning the Carnival into a profitable and exportable industry as a progressive move, benefiting the country as a whole.

A large number of people are in two minds. On the one hand, the changes are a reflection of what people - mainly tourists - want, and bring in money. On the other, there is a desire to preserve traditions. The transformation of the bands and processions into businesses has disrupted the social order, which used to be made up of friends getting together to relax, eat and drink, and make costumes. Both sides agree, though, that the country needs to make better use of the skills of the people in the Carnival business and that the country's resources must appeal to a wider market.

Most sea creatures, from whales and dolphins to fish, sharks, shrimps and possibly even anemones respond to sound, and many can produce it. They use it to hunt and to hide, find mates and food, form and guide shoals, navigate 'blind', send messages and transmit warnings, establish territories, warn off competitors, stun prey, deceive predators, and sense changes in water and conditions.

Marine animals click bones and grind teeth; use drum-tight bladders and special sonic organs to chirp, grunt, and boom; belch gases; and vibrate special organs. Far from the 'silent deep', the oceans are a raucous babel.

Into this age-long tumult, in the blink of an evolutionary eye, has entered a new thunder: the throb of mighty engines as 46,220 large vessels plough the world's shipping lanes. Scientists say that background noise in the ocean has increased roughly by 15 decibels in the past 50 years. It may not sound like much in overall terms; but it is enough, according to many marine biologists, to mask the normal sounds of ocean life going about its business. At its most intense, some even say noise causes whales to become disoriented, dolphins to develop 'the bends', fish to go deaf, flee their breeding grounds or fail to form shoals - enough to disrupt the basic biology of two thirds of the planet.

'Undersea noise pollution is like the death of a thousand cuts', says Sylvia Earle, chief scientist of the US National Oceanic and Atmospheric Administration. 'Each sound in itself may not be a matter of critical concern, but taken all together, the noise from shipping, seismic surveys, and military activity is creating a totally different environment than existed even 50 years ago. That high level of noise is bound to have a hard, sweeping impact on life in the sea.'

What do great managers actually do? 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 a task. First, identifying and capitalizing on each person's uniqueness saves time. No employee, however talented, is perfectly

well-rounded. Michelle could have spent untold hours coaching Jeffrey and cajoling him into smiling at, making friends with, and remembering the names of customers, but she probably would have seen little result for her efforts. Her time was much better spent carving out a role that took advantage of Jeffrey's natural abilities. Second, capitalizing on uniqueness makes each person more accountable. Michelle didn't just praise Jeffrey for his ability to execute specific assignments. She challenged him to make this ability the cornerstone of his contribution to the store, to take ownership for this ability, to practice it, and to refine it. Third, capitalizing on what is unique about each person builds a stronger sense of team, because it creates interdependency. It helps people appreciate one another's particular skills and learn that their co-workers can fill in where they are lacking. In short, it makes people need one another. The old cliché is that there's no "I" in "team". But as Michael Jordan once said, there may be no "I" in "team", but there is in "win". Finally, when you capitalize on what is unique about each person, you introduce a healthy degree of disruption into your world. You shuffle existing hierarchies: If Jeffrey is in charge of all resets and revisions in the store, should he now command more or less respect than an assistant manager? You also shuffle existing assumptions about who is allowed to do what: If Jeffrey devises new methods of resetting an aisle, does he have to ask permission to try these out, or can he experiment on his own? And you shuffle existing beliefs about where the true expertise lies: If Genoa comes up with a way of arranging new merchandise that she thinks is more appealing than the method suggested by the "planogram" sent down from Walgreens headquarters, does her expertise trump the planners back at corporate? These questions will challenge Walgreens' orthodoxies and thus will help the company become more inquisitive, more intelligent, more vital, and, despite its size, more able to duck and weave into the future.

ONE AUSTRALIA



WRITE ESSAY

ONE AUSTRALIA

Among computer, aerospace, and manufacturing industries, which one has a more promising future? Please provide your reasons.

What can make learning a new foreign language unimportant? Give your example and explanation.

As the urban population grows, traffic is heavy and public areas such as parking lots are packed. What solutions do you think can address such problems?

Some people claim that competition improves the quality of our private and professional lives. Others believe that hyper competition is bad for individuals and for society in general. What is your opinion?

Some believe the value of travel is overrated. Some brilliant scholars never leave their home bases. People argue whether travel is or not an essential component of education. To what extent do you agree with it?

In some companies employers take workers' opinions into consideration of products and services. Discuss the advantages and disadvantages.

While artificial intelligence becomes so advanced, people can use computers to translate foreign languages. That makes learning a foreign language unnecessary. To what extent do you agree with it?

Some people prefer to live in cities, while some people prefer to live in the countryside. Which is better for you? Give your reasons or experience.

What are the advantages and the disadvantages of being over-competitive to individuals and society?

Some people say there should be a maximum wage for high-paying jobs. Do you support that? Can you give your point of view or your own experience?

It is harder for children growing up in the 21st century than it was in the past. How far do you agree with this statement? Give your opinions.

More and more countries spend large amounts of money on the restoration of historic buildings instead of on modern housing. To what extent do you agree or disagree with this analysis? What are advantages and disadvantages of this? Support your writing with your experience or examples.

Some people think learning a foreign language at school should be compulsory. To what extent do you agree with it? Use your experience or examples to support your viewpoint.

Unemployment among young people is a serious problem. One solution has been suggested is to shorten the working week. What do you think are the advantages and disadvantages? Do you think this policy should apply to just young workers or the whole workforce ?

People who are famous entertainers or sportspeople should give up the right to privacy as this is the price of fame. To what extent do you agree/disagree with this point of view? Give your opinion with your experiences.

“In the future, people will work fewer hours at their jobs than they do now.” To what extent do you agree with it? Please support your opinion with your own experience.

Television serves many useful functions. It helps people to relax. Besides, it can also be seen as a companion for lonely people. To what extent do you agree with this? Explain why with your own experience.



In our technological world, the number of new inventions has been evolving on a daily basis. Please describe a new invention and determine whether it brings beneficial or detrimental impact to society.

Nowadays, more and more people engage in dangerous activities, such as skydiving, skiing and extreme motorcycling. Are you in favor of such activities or not? Why?

For a less developed country, the disadvantages of tourism are as great as the advantages. What is your opinion?

Some people think human behavior can be changed by laws, while others think laws have little effect. What is your opinion?

Experience is the best teacher. Some people believe it is more effective than formal school study and books, what do you think?

Should marketing in companies which produce consumer goods, like food and clothing, place emphasis on the reputation of the company or short-term strategies like the discounts and special offers? Why?

Imagine you have been assigned on the study of climate change. Which area of climate change will you choose and why? Use examples.

It is often argued that studying overseas is overrated. There are many scholars who study locally. To what extent do you agree with this?

There are many global problems. What is the most pressing problem? What solutions would you suggest?

What are the advantages and problems of cheaper public transportation? Give your opinion from your own experience.

Effective study requires time, comfort and peace. It is impossible to study with employment because one may distract the other. To what extent do you think the statements are realistic? Give your opinion with examples.

Experience is the best teacher. Some people think life experiences teach people more effectively than books or formal education can. How far do you agree with this statement? Give your reason or provide your personal experience.

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 or problems of this phenomenon?

Age restrictions can be seen everywhere. It is believed that people should not do things until they reach the right ages, such as marriage, driving, voting, buying particular products, and doing particular things. Select one activity and state the minimum age that you think. Support with your own experiences.

Tourism is good for some less developed countries, but also has some disadvantages. Discuss.

With the increase of new digital media available online, the role of the library has become obsolete. Therefore universities should only procure digital materials rather than constantly update textbooks. Discuss both the advantages and disadvantages of this position and give your own point of view.

Do you think the design of buildings affects positively or negatively where people live and work?

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?

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?

In your opinion, what are the advantages and disadvantages of extreme or adventure sports?

Many education systems assess students using formal written examinations. Those kinds of exams are a valid method. To what extent do you agree or disagree? Give examples with your own experience.



ONE AUSTRALIA

Employers involve workers in decision-making process about products and services. What are the advantages and disadvantages of such a policy?

Climate change is a concerning global issue, and many people hold a negative attitude towards it. Who should take the main action to solve this problem, governments, big companies or individuals?

Nowadays, work leaves little time to people's personal life. How widespread do you think it is? How can we solve the problems caused by the shortage of time?

The world's governments and international organizations confront a multitude of global problems. Which do you think is the most pressing problem for the inhabitants of our planet and give the solution?

It is argued that getting married before finishing studying or getting established in a good job is foolish. To what extent do you agree or disagree?

Should marketing for consumer goods companies like clothing and food emphasize reputation or short-term strategies like discounts and special offers?

Nowadays, it is increasingly more difficult to maintain the right balance between work and the other aspects of one's life, such as leisure pursuits with family members. How important do you think this balance is? What are the reasons that make some people think that this is hard to achieve?

Medical technology is responsible for increasing the average life expectancy. Do you think it is a blessing or a curse?

The mass media, such as TV, radio and newspapers, have an influence on people, particularly on younger generations. It plays a pivotal role in shaping the opinions of people, especially teenagers and young people. To what extent do you agree with this? Please give examples.

The information revolution brought about by modern mass communications has both positive and negative consequences for individuals and society. To what extent do you agree with this statement? Give the reason with your own experience.

As cities expand, governments should look forward to creating better networks of public transport available for everyone rather than building more roads for vehicle owning population. To what extent do you agree or disagree?

Should parents be held legally responsible for the actions of their children? Support your opinion from your study, observations or experiences.

Nowadays, people who devote too much time to their job leave very little time for their personal and private life. How widespread is the problem? What problem will this shortage of time cause?

In many towns and cities, large shopping malls are replacing small local shops. Do you think this is a positive development? Give your reasons and examples.

In the past 100 years, there have been many inventions such as antibiotics, airplanes and computers. What do you think is the most important one? Why?

What are the problems and the benefits for high school students of studying plays and other works for theater that were written centuries ago? Do you agree with it? Use your own experience to discuss it.

In many countries, the birth rates are lowering, and the problems of an ageing population are serious. What are the causes and the effects of this phenomenon? what should we do to address these issues?

Some universities deduct marks from students' work if it is given in late. What is your opinion? Suggest some alternative actions.







R/W FILL IN THE BLANKS

ONE AUSTRALIA

You may have heard that humans only use 10 percent of their brain power, and that if you could (Answer: unleash) the rest of your brainpower, you could do so much more. You could become a super genius, or acquire psychic powers like mind reading and telekinesis. However, there is a powerful body of evidence (Answer: debunking) the 10 percent myth. Scientists have consistently shown that humans use their entire brain throughout each day. Despite the evidence, the 10 percent myth has inspired many references in the cultural imagination. Films like "Limitless" and "Lucy" (Answer: depict) protagonists who develop godlike powers thanks to drugs that unlock the previously (Answer: inaccessible) 90 percent of the brain. A 2013 study showed that about 65 percent of Americans believe the trope, and a 1998 study showed that a full third of psychology majors, who focus on the workings of the brain, fell for it.

Choices:

- 1.unnerve, unleash, underlie, uncover
- 2.debunking, diluting, colliding, swerving
- 3.convict, depict, constrict, restrict
- 4.inaccessible, insusceptible, insupportable, interpersonal

Volcanic eruptions provide routes for material deep beneath Earth's surface to escape to the surface. They also allow a world to (Answer: vent) its heat. Active volcanoes on Earth and Venus are fed by subsurface molten rock. On Earth, the lava comes up from the mantle (which is the layer under the surface). Once there's enough molten rock — called magma — and enough pressure on it, a volcanic eruption (Answer: occurs). In many volcanoes, the magma rises up through a central tube or "throat," and (Answer: emerges) out the top of the mountain. Volcanic activity can be fairly quiet, or it can be quite (Answer: explosive). In a very active flow, clouds of gas may come rolling out of the volcanic caldera. These are quite deadly because they're hot and moving fast, and the heat and gas can kill someone very quickly.

Choices:

- 1.invent, dent, prevent, vent
- 2.occurs, concurs, recurs, incurs
- 3.merges, converges, submerges, emerges
- 4.qualified, equivalent, explosive, tranquil

Acid deposition can be caused by natural sources such as volcanoes, but it is mainly caused by the (Answer: release) of sulfur dioxide and nitrogen oxide during fossil fuel combustion. When these gases are discharged into the atmosphere, they react with the water, oxygen, and other gases already present there to form sulfuric acid, ammonium nitrate, and nitric acid. These acids then (Answer: disperse) over large areas because of wind patterns and fall back to the ground as acid rain or other forms of precipitation. The gases most responsible for acid deposition are a byproduct of electric power generation and the burning of coal. As (Answer: such), man-made acid deposition began becoming a significant issue during the Industrial Revolution. Although it was discovered in

the 1800s, acid deposition did not gain significant public attention until the 1960s, and the term "acid rain" was coined in 1972. Public attention (Answer: further) increased in the 1970s when the "New York Times" published reports about problems occurring in the Hubbard Brook Experimental Forest in New Hampshire.

Choices:

- 1.release, lease, tease, cease
- 2.dispose, disapprove, disperse, disposition
- 3.saying, part, evidence, such
- 4.inadvertently, geometrically, comprehensively, further

Periods of extremely hot weather cost the global economy an estimated \$16 trillion between 1992 and 2013, while (Answer: hitting) the poorest countries four times as hard as the richest ones. "Our work reveals that we have (Answer: underestimated) both the costs of climate change so far and how sensitive our economy is at present to climate variations," says Justin Mankin at Dartmouth University in New Hampshire. Previous studies have shown that climate change hits the poorest nations hardest, despite them (Answer: contributing) the least to climate change. This is partly because many low-income countries are in the tropics and have a hotter climate to begin with. New data on economic growth allowed Mankin and Christopher Callahan, also at Dartmouth College, to look at the impact of extreme heat at a regional level and use models to fill in the data in parts of Africa and Asia where figures were missing. Their analysis reveals that short (Answer: spells) of extreme heat were significant enough to lower a region's economic output for the entire year.

Choices:

- 1.defeated, hitting, hit, defeating
- 2.underutilized, underpinned, underestimated, underexposed
- 3.contributing, permeating, accommodating, computing
- 4.spells, effects, lacks, qualities

Playing a rhythm-based game for eight weeks helps non-musicians become better at remembering recently seen faces. This suggests that learning to play an instrument could (Answer: improve) short-term memory for non-musical tasks. There have been several studies showing that musicians tend to have better short-term memory than non-musicians when it comes to music-related tasks, such as remembering musical (Answer: sequences). It is less clear whether these benefits carry over to non-musical tasks or to non-musicians who are learning to play an instrument, and how these changes might actually be seen in the brain. Theodore Zanto at the University of California, San Francisco, and his colleagues, randomly (Answer: assigned) a group of 47 non-musicians, aged between 60 and 79, to play either a tablet-based musical rhythm training game, which (Answer: emulates) learning to hit a drum in time with a teacher, or a word search game for eight weeks. At the start and end of the eight weeks, participants took a short-term memory test to measure their ability to remember a face

they saw seconds before. Only the group who played the rhythm training game showed an improvement on their initial scores – of around 4 per cent.

Choices:

1. disapprove, approve, improve, reprove
2. consequences, prescience, sequences, existences
3. assigned, resigned, designed, cosigned
4. formulates, regulates, saturates, emulates

Roman concrete, in many cases, has proven to be longer-lasting than its modern (Answer: equivalent), which can deteriorate within decades. Now, scientists behind a new study say they have uncovered the mystery ingredient that allowed the Romans to make their construction material so durable and build (Answer: elaborate) structures in challenging places such as docks, sewers and earthquake zones. They found that white chunks in the concrete, referred to as lime clasts, gave the concrete the ability to heal cracks that formed over time. The white chunks previously had been (Answer: overlooked) as evidence of sloppy mixing or poor-quality raw material. With further study, the researchers concluded that lime clasts arose because of the use of quicklime (calcium oxide) – the most reactive, and dangerous, dry form of limestone – when mixing the concrete, rather than or in addition to slaked lime. Additional analysis of the concrete showed that the lime clasts formed (Answer: at) extreme temperatures expected from the use of quicklime, and “hot mixing” was key to the concrete’s durable nature.

Choices:

1. flocculent, equivalent, ambivalent, rambunctious
2. amplified, evasive, elaborate, equivocal
3. overlooked, overdeveloped, oversaw, overrefined
4. in, within, off, at

The world is set to (Answer: emit) enough carbon to exceed the 1.5°C global warming target within the next 10 years, according to a new analysis from the United Nations. National climate plans submitted to the UN outlining emissions cuts between now and 2030 are (Answer: nowhere) near ambitious enough to limit warming to 1.5°C, the UN’s climate change secretariat warned. On the current (Answer: trajectory), the planet’s average temperature will reach 2.5°C above pre-industrial levels by the end of the century, (Answer: blasting) through even the upper threshold of 2°C of warming set by the Paris Agreement. Scientists warn that this level of warming could (Answer: trigger) tipping points that would spark runaway climate change. The latest synthesis report from the UN assesses the impact of climate plans submitted under the UN process. Since last year’s analysis, some progress has been made, with global emissions now set to peak by the end of the decade.

Choices:

1. summit, emit, admit, commit

- 2.elsewhere, anywhere, everywhere, nowhere
- 3.introductory, intimidatory, trajectory, articulatory
- 4.broadcasting, blasting, nominating, differentiating
- 5.elate, trigger, oversize, downsize

Fear that makes you vomit, the sting of a rejection, paralyzing grief – emotional pain can (Answer: manifest) in many physical symptoms. And while writers and musicians have spun tales and crafted songs intertwining physical and emotional pain for centuries, scientists have found it more difficult to describe the relationship between the two. Now, recent breakthroughs are shedding (Answer: light) on the shared mechanisms that underlie both kinds of pain, offering an explanation as to why one leads to the other and providing (Answer: avenues) for treating some of our most debilitating conditions. While senses like vision and hearing have nerve pathways that can be traced from the eyes and ears to a distinct brain region, brain activity in response to pain is more complex. It (Answer: incorporates) thoughts and emotions, which is why a good book can lessen a toothache, for instance, or the pain from a hot probe hurts more when you feel sad.

Choices:

- 1.manifest, infest, coerce, rifest
- 2.torchlight, lamp, light, beam
- 3.venues, retinues, revenues, avenues
- 4.incorporates, investigates, indict, intertwines

Your dog's behavior probably isn't due to its breed, according to a large-scale genetic analysis. The findings suggest that stereotypes (Answer: associated) with certain breeds have little basis. Kathleen Morrill at the University of Massachusetts and her colleagues studied the DNA of more than 2000 dogs using a genome-wide analysis. The team wanted to determine if any common genetic (Answer: variations) could be linked to behaviors typically associated with particular dog types. In other words, could genetics explain why Rottweilers often seem so aggressive or why Border collies are thought of as sociable? The researchers combined this analysis with survey responses from the owners of more than 18,000 dogs, mostly from the US, who had been asked to (Answer: detail) the behaviour of their pets. After collecting all this information, the team focused their analysis on the differences between pure-bred and cross-bred dogs.

Choices:

- 1.associated, appreciated, dissociated, indoctrinated
- 2.satisfactions, accommodations, variations, adjudications
- 3.entail, retail, detail, curtail

Laidre and her colleagues analyzed genetic samples from polar bears that they tracked from 2015 to 2019, which they combined with data from previous studies. In their first discovery, they found a few hundred polar bears in south-east Greenland are the most genetically (Answer: isolated) of their species. While tracking these animals, the team further discovered this genetically-isolated group hunts via floating blocks of freshwater ice, broken off from glaciers, for about 250 days of the year, when sea ice has (Answer: melted). This probably enables the bears to live in the area, which has no sea ice for considerably longer than other polar bear habitats. While this suggests all polar bears are more (Answer: resilient) than we previously thought, glacial ice is largely limited to the animals around Greenland and Svalbard. “Glacier ice may help small numbers of polar bears survive for longer periods under climate warming, and may be important to prevent extinction, but it is not available for the vast (Answer: majority) of polar bears,” says Laidre. “Climate action is the single most important thing for the future of polar bears. Most polar bears in the Arctic depend on sea ice.”

Choices:

- 1.articulated, correlated, isolated, overpopulated
- 2.pelted, belted, melted, felted
- 3.emollient, resilient, salient, redundant
- 4.minority, familiarity, singularity, majority

It is that time of year again. As the cold and flu season hits the northern hemisphere on top of the ongoing (Answer: ravages) of covid-19, many of us reach for something to give our body's defence a helping hand. There is no shortage of foods and drinks that claim to be able to help. Supermarket shelves are heaving with “immunity support” juices, yogurts and spice-infused teas. Comforting, yes, but can these foods really help (Answer: stave) off contagion? The impact of diet on our natural defence is a topic (Answer: rife) with claims that don't stand up to scrutiny, but we are finally developing a clearer (Answer: picture) of the powerful influence that food can have on our immunity. The surprising truth is that focusing on particular products or ingredients could be leading you down the wrong path. In fact, an immune “boost” might be the last thing you need.

Choices:

- 1.ravages, savages, stages, rages
- 2.crave, stave, save, wave
- 3.strife, afterlife, rife, highlife
- 4.sound, picture, speech, instruction

Winter may be seen as the time to fill up with comfort food, but in fact, the sunny summer months are when men eat more calories – unlike women. The effect may (Answer: occur) because sunlight makes the skin release an appetite-stimulating hormone called Ghrelin, says Carmit Levy at Tel Aviv University in Israel. Levy and her team noticed the unexpected effect in experiments in mice that investigated mechanisms behind skin cancer, in which male animals (Answer: exposed) to UV light ate more food. To see if humans do the same, the researchers used existing data on about 3000

people who had filled in detailed (Answer: dietary) questionnaires as part of the Israeli government's regular national health and nutrition survey. Between March and September, men consumed about 17 per cent more calories per day than they did during the rest of the year, while women's food (Answer: intake) stayed about the same.

Choices:

1. resurrect, replace, occur, surprise
2. exposing, disposed, exposed, expose
3. technical, minor, dietary, scientific
4. outtake, uptake, undertake, intake

I have seen my future and it is full of beans, both literally and (Answer: metaphorically). As well as upping my bean count, there will be a lot of vegetables, no meat, long periods of hunger and hardly any alcohol. But in return for this dietary discipline, my future will also be significantly longer and (Answer: sprightlier). I am 52 and, on my current diet, can expect to live another 29 years. But if I change now, I could gain an extra decade and live in good health into my 90s. This "longevity diet" isn't just the latest fad, it is the product of more than a human lifespan of scientific research. And it isn't merely designed to prevent illness, but to actually slow down the ageing process – that's the claim, anyway. Of course, it is a no-brainer to say that our diets can alter our lifespans. Worldwide, millions of people still die (Answer: prematurely) every year from lack of calories and nutrients. Meanwhile, an estimated 11 million die each year from too many calories and the wrong sort of nutrients.

Choices:

1. significantly, intriguingly, mentally, metaphorically
2. sightlier, ghastlier, sprightlier, motlier
3. prematurely, precisely, professionally, presumably

Our planet usually takes 24 hours to rotate on its (Answer: axis) but not anymore. On July 29, Earth's full spin was 1.50 milliseconds shorter than 24 hours, which means Earth experienced its shortest day ever. However, this wasn't just a one-time fluke. Earth has been in a hurry in recent years. As per International Earth Rotation and Reference Systems (IERS), in 2020, Earth recorded 28 shortest days. Earth's faster rotation could affect our clocks. The time that you and your mobile phone live by is (Answer: dictated) by Coordinated Universal Time (UTC). It is responsible for setting your time zone. This time, also known as astronomical time, is (Answer: dependent) on how long it takes for Earth to complete one rotation. As the rotation speed picks up, people who watch the Earth's rotation and world's clock for a living, will have to introduce a leap second to keep up with Earth's pace and synchronize clocks with it.

Choices:

1. axis, sundial, core, surface

- 2.delegated, addicted, dictated, rotated
- 3.dependent, focused, born, available

An ancient species of turtle whose remains have been discovered in Spain is the largest marine turtle (Answer: ever) found in Europe. The turtle, which has been named Leviathanochelys aenigmatica, was up to 3.74 meters long. It lived sometime between 72.1 million and 83.6 million years ago, around the same time as dinosaurs such as Velociraptor. Fragments of the fossil were first found by a hiker in 2016 in Coll de Nargó, a village in the Catalonia region. The remains were (Answer: dug) up and collected by local government and museum officials. In 2021, Àngel Luján at the Autonomous University of Barcelona and his colleagues (Answer: conducted) more excavations of the area and discovered that the fossil actually belonged to a new species of turtle. During this excavation, the team realized that the turtle's 90-centimetre-wide pelvis had two bone bulges on its front, unlike any other turtle pelvises previously (Answer: described). The turtle is the second-largest marine turtle ever discovered and the largest to have been found in Europe.

Choices:

- 1.ever, whatsoever, since, however
- 2.bug, dug, mug, tug
- 3.deduced, conducted, conduced, digested
- 4.described, proscribed, inscribed, subscribed

When physicist Lydéric Bocquet's 7-year-old son asked him why a good throw makes a stone skip on a lake instead of (Answer: sinking), Bocquet took the question as a challenge. He has now produced a set of equations explaining the physics underlying the popular pastime. Two key forces act on a skipping stone: gravity, which pulls it down, and lift, the reactive force of the water, which pushes the stone up each time it hits the (Answer: surface). If the lift force is greater than the force of gravity then the stone bounces up; otherwise it sinks. Bocquet's physical model (Answer: bears) out the conventional wisdom that the best skipping stones are flat and should be hurled nearly parallel to the water, fast and spinning. The stone's flatness maximizes the lift, as does its speed, which also provides energy to keep it bouncing along. These are the same factors that keep a water-skier from sinking, Bocquet says. Spin prevents the stone from tilting and hitting the water edge-first, just as fast rotations (Answer: stabilize) a bicycle or a spinning top.

Choices:

- 1.sinking, plunking, debunking, hiking
- 2.surface, efface, preface, boldface
- 3.hears, tears, fears, bears
- 4.commercialize, stabilize, nationalize, fertilize

Climate change is not only (Answer: driving) the extinction of many bird species, but it may also mean that the birds that survive will have less diverse physical features. In the last 50 years, the US and Canada have lost more than one-quarter of their birds – an estimated 3 billion animals – due to human activity. A study released last year found that there are now 600 million fewer birds in Europe than there were in 1980. Extinctions are (Answer: expected) to continue according to the latest State of the World's Birds report, which found that 48 percent of birds worldwide are known or suspected to be (Answer: undergoing) population declines. “We know we're going to lose species, but we don't know much about other aspects of diversity that are also super important,” says Emma Hughes at the University of Sheffield in the UK. As extinctions of some of the rarest and most (Answer: distinctive) birds continue, Hughes wanted to know if surviving species will become more alike over time – a process called “homogenization”.

Choices:

- 1.involving, misbehaving, observing, driving
- 2.decided, expected, expecting, projected
- 3.undermining, underlying, undergoing, undershooting
- 4.conductive, destructive, distinctive, restrictive

Not all of us have what it takes to be a dancing queen. But whether you are a politician with two left feet or a Strictly Come Dancing wannabe, if you like to dance you are in luck. Ballet, ballroom or break-dancing, it doesn't matter: getting into the groove does (Answer: wonders) for you. And it's not just the joy of moving to music. Dancing is good for the brain too. It can change the way you think and even keep your mind (Answer: sharp) as you age. “People are born to move. They are born to move rhythmically,” says dance psychologist Peter Lovatt at the University of Hertfordshire, UK. Admittedly, we are not all blessed with the same degree of (Answer: talent) for it, but dancing is ingrained in human nature. People across almost all cultures have done it for as long as we know. Indeed, a sense of rhythm seems to be (Answer: innate). Telltale brain activity in newborn babies reveals that even they can spot when a drummer skips a beat.

Choices:

- 1.wonders, businesses, researches, customers
- 2.closed, sharp, blank, clean
- 3.success, risk, uncertainty, talent
- 4.initiative, indicative, inmate, innate

On 7 December, representatives from nearly every country in the world will gather in Montreal for the United Nations' COP15 summit to (Answer: tackle) the world's biodiversity crisis. Delays to the meeting have (Answer: tempered) expectations for the outcome of the summit, but participants are holding out hope that the meeting could be as consequential for stemming biodiversity loss as the landmark 2015 Paris Agreement was for action on climate change. COP15 is the 15th Conference of the Parties to the UN Convention on Biological Diversity, a treaty (Answer: drafted) in 1992 to protect

the world's biodiversity. Parties to the treaty include the European Union and every country in the world except the US and Vatican City, though both will participate in the summit. Representatives from countries meeting in Montreal will (Answer: negotiate) an agreement to shape the next decade of action on biodiversity.

Choices:

- 1.work, tackle, figure, redress
- 2.tempered, coppered, whispered, coated
- 3.crafted, drifted, rafted, drafted
- 4.satiate, deprecate, dispassionate, negotiate

For most of our history, we have been hunter-gatherers, and patrilocal residence is not the norm among modern hunter-gatherer societies. Instead, either partner may move to live with the "in-laws", or a couple may (Answer: relocate) away from both their families. According to the scientist, a degree of egalitarianism is built into these systems. If they reflect what prehistoric hunter-gatherers did, women in those early societies would have had the choice of support from the group they grew up with, or the option to move away from (Answer: oppression). According to one school of thought, things changed around 12,000 years ago. With the (Answer: advent) of agriculture and homesteading, people began settling down. They acquired resources to defend, and power (Answer: shifted) to the physically stronger males. Fathers, sons, uncles and grandfathers began living near each other, property was passed down the male line, and female autonomy was eroded. As a result, the argument goes, patriarchy emerged.

Choices:

- 1.reform, resend, reload, relocate
- 2.compression, profession, depression, oppression
- 3.advent, solvent, convent, invent
- 4.shifted, deceived, removed, delegated

Fast-moving animals – especially small ones, creatures that fly and top ocean predators – (Answer: perceive) time more quickly than others. That is, they can process more frames per second than slow-moving animals lower in the food chain, such as starfish, according to a comparison of more than 100 species. "We already know that different animals perceive time differently from us," says Kevin Healy at the University of Galway in Ireland, who (Answer: presented) the results at a meeting of the British Ecological Society on 20 December. But he wanted to find out, "If you're a predator, do you have faster eyes than if you're an herbivore?" He and his colleagues began by reviewing previously published research on the flicker fusion test, a common measure of the rate at which animals perceive the (Answer: passage) of time. During the test, researchers increase the frequency of a flashing light until an animal sees it as a continuous glow, indicated by the reaction of light receptors in the animal's retina.

Choices:

- 1.deceive, perceive, conceive, receive
- 2.absented, presented, resented, assented
- 3.passage, massage, paragraph, message

Around 65 percent of Antarctic animals and plants could decline by the end of the century if conservation efforts aren't (Answer: ratcheted) up. Species expected to undergo the steepest population drops are emperor penguins, Adélie penguins, chinstrap penguins and soil nematodes. In a two-part analysis, Jasmine Lee at the British Antarctic Survey and her colleagues (Answer: compiled) scientific data to pinpoint which of the Antarctic's wildlife will be most at risk under moderate and severe warming scenarios. Then, they asked a group of 29 international experts on Antarctic biodiversity to assess the cost and effectiveness of different management strategies over the next century, like reducing tourism and the spread of (Answer: invasive) species. Under current management strategies and moderate warming, the team found 65 per cent of land plants and animals will decline by the end of the century. If warming is limited to below 2°C by 2100, the estimate drops to 31 percent. "Everyone tends to think of Antarctica as this remote and (Answer: untouched) wilderness that's free of these threats that are facing the rest of the world," says Lee, but the results suggest otherwise.

Choices:

- 1.detached, ratcheted, attached, stitched
- 2.defiled, compiled, stringers, refilled
- 3.inclusive, conclusive, invasive, compressive
- 4.unconventional, untouched, unpretentious, uncontroversial

ONE AUSTRALIA

The idea that Western power and influence is in gradual decline, perhaps as a prelude to a (Answer: precipitous) fall, has been around for a while. But it has gained a new urgency with recent political events, not least the election of US president Donald Trump. For some, his turning away from international commitments is part of fulfilling his promise to "make America great again" by (Answer: concentrating) on its own interests. For others, it's a dangerous move that threatens to undermine the whole world order. Meanwhile, over in the old world, Europe is (Answer: mired) in its own problems. Using science to predict the future isn't easy, not least because both "collapse" and "Western civilization" are difficult to define. We talk about the collapse of the Roman Empire in the middle of the first millennium, for example, but there is plenty of evidence that the empire existed in some form for centuries afterwards and that its influence (Answer: lingers) today. So, when we talk about collapse, do we mean that people lose everything and go back to the dark ages? Or that it's going to be socially and politically turbulent for a while?

Choices:

- 1.covetous, acetous, momentous, precipitous
- 2.concentrating, castrating, demonstrating, orchestrating
- 3.fired, wired, mired, sired

4.malingers, lingers, harbingers, mongers

You have been sitting at your desk for longer than you care to remember. Your head is fuzzy, your body is aching. You know it's not good for you, but you also need to get that work done. Yet skipping breaks is the best way not only to (Answer: deplete) energy reserves and increase stress, but also to depress productivity. When the Draugiem Group, an IT company based in Latvia, tracked the behaviour of its employees, the top 10 per cent most productive people worked the same hours as everyone else, (Answer: but) took more breaks – on average a 17-minute break after 52 minutes of work. Organizational psychologist John Trougakos at the University of Toronto, Canada, says we should ideally stand up and move around for 30 to 60 seconds every 20 to 30 minutes, and focus on something more than 6 meters away to (Answer: rest) our eyes. We should take an extended break of 10 or 15 minutes every hour or so, because we have only a limited (Answer: capacity) to concentrate for longer.

Choices:

- 1.complete, obsolete, deplete, delete
- 2.but, therefore, although, so
- 3.rest, function, arrest, operate
- 4.audacity, capacity, domesticity, authenticity

By the 1820s Bentham had become a well-known figure, both in Britain and in other parts of the world. His ideas were to (Answer: influence) the reforms of public administration made during the nineteenth century, and his writings are still at the centre of academic debate, especially regarding social policy, legal positivism, and welfare economics. Bentham died on 6 June 1832, a day before the first Reform Act was given Royal Assent. As per the (Answer: directions) in his will, Bentham's body was dissected by his friend, the surgeon Thomas Southwood Smith, and his skeleton preserved as the Auto-Icon. Research into Bentham's thought and life continues today at UCL's Bentham Project, set up in the early 1960s with the aim (Answer: of) producing the first scholarly edition of his works and correspondence. This edition is projected to (Answer: run) to some eighty volumes. Members of the public are invited to assist in this massive editorial task by helping to transcribe Bentham's manuscripts via Transcribe Bentham.

Choices:

- 1.influence, overcome, suggest, flourish
- 2.directions, parts, categories, levels
- 3.along, among, against, of
- 4.respond, stick, visualize, run

Willful blindness had started life as a legal concept in the nineteenth century. A judge in *Regina v. Sleep* ruled that an accused could not be convicted for possession of government property (Answer: unless) the jury found that he either knew the goods came from government stores or had "willfully shut his eyes to the fact." Thereafter, English judicial authorities referred to the state of mind that accompanied one who "willfully shut his eyes" as "connivance" or "constructive knowledge." Over time, lots of other phrases came into play—"deliberate or willful ignorance", "conscious avoidance," and "deliberate indifference." What they all have in (Answer: common) is the idea that there is an opportunity for knowledge and a responsibility to be informed, but it is shirked. Nowadays, the law is (Answer: most) often applied in cases of money laundering and drug trafficking: if you've been paid a large amount of money to carry a suitcase, then you are being willfully blind if you don't check what is inside.

Choices:

- 1.since, unless, although, thereby
- 2.contrast, total, relation, common
- 3.little, few, most, less

The aim of this book is to give the reader an overview of study and practice in the field of public archaeology. It offers a series of snapshots of important ideas and areas of work brought together as an introduction, (Answer: albeit) an inevitably brief and incomplete one, to one of the most challenging and rewarding parts of the wider archaeological discipline. Read the book from cover to cover and you will have a good working understanding of public archaeology as a complicated, rich and diverse field, as well as knowledge of some of the most significant and iconic examples of public archaeology in action. (Answer: Dip) into a specific chapter and you will find a concise and insightful introduction to one aspect of public archaeology with case studies and a list of readings to develop your understanding. (Answer: However) you use this book I am confident that you will emerge with a better understanding of what public archaeology is, why it matters and what you can do about it. First, it is necessary and useful, drawing on the quotes above, to ask what we mean by public archaeology, and to examine some of the different ways it has been defined.

Choices:

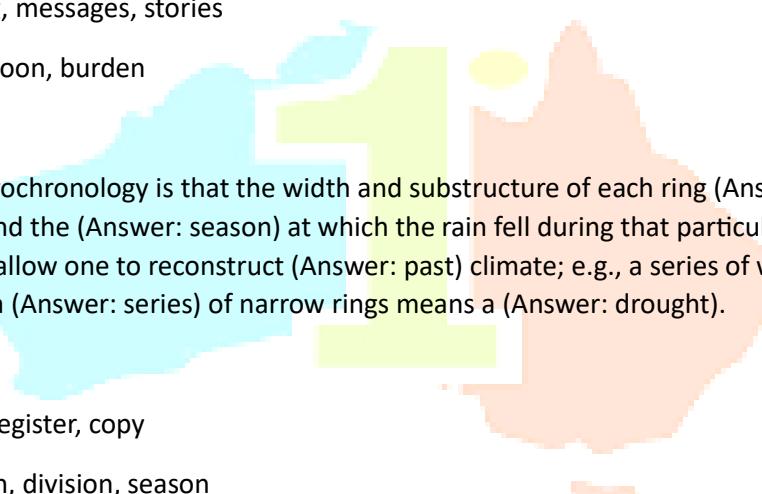
- 1.because, albeit, unless, despite
- 2.Tip, Give, Change, Dip
- 3.As, That, However, How

The six programs represented here report that word of mouth is by far their most effective recruitment tool, particularly because it typically yields candidates who are similar to previously successful candidates. Moreover, satisfied candidates and school systems are likely to (Answer: spread) the word without any special (Answer: effort) on the part of their program. Other less personal advertising approaches, such as radio and television spots and local newspaper advertisements, have also proven fruitful, (Answer: especially) for newer programs. New York uses a

print advertising campaign to inspire dissatisfied professionals to become teachers. Subway posters send provocative (Answer: messages) to burned-out or disillusioned professionals. "Tired of diminishing returns? Invest in NYC kids" was just one of many Madison Avenue-inspired invitations. News coverage has also proven to be a (Answer: boon) to alternative programs. When the New York Times, for example, ran a story about the district's alternative route program, 2,100 applications flooded in over the next six weeks.

Choices:

- 1.spread, deepen, unfold, splay
- 2.effect, errand, effort, emotion
- 3.rarely, totally, especially, likely
- 4.telling, warning, messages, stories
- 5.facet, charge, boon, burden



A bonus of dendrochronology is that the width and substructure of each ring (Answer: reflect) the amount of rain and the (Answer: season) at which the rain fell during that particular year. Thus, tree ring studies also allow one to reconstruct (Answer: past) climate; e.g., a series of wide rings means a wet period, and a (Answer: series) of narrow rings means a (Answer: drought).

Choices:

- 1.covet, reflect, register, copy
- 2.timing, duration, division, season
- 3.then, before, past, pass



Thus the environmental policy does not contribute to the profitability in any real sense at all. In practice it is companies that are well organized and efficient, or that are already comfortably profitable, that have time to (Answer: establish) and police environmental policies. However, if profitable companies are the ones most likely to establish 'environmental best (Answer: practice) this is confusing cause with effect. It is not that environmental best practice causes profitability, but that being profitable allows for (Answer: concern) for the environment.

Choices:

- 1.cater, enlist, enrol, establish
- 2.practice, vocation, code, revision
- 3.concern, level, effect, bother

Since the beginning of the financial crisis, there have been two principal (Answer: explanations) for why so many banks made such disastrous decisions. The first is structural. Regulators did not. Institutions failed to (Answer: function) as they should. Rules and guidelines were either inadequate

or ignored. The second explanation is that Wall Street was (Answer: incompetent), that the traders and investors didn't know enough, that they made extravagant bets without (Answer: understanding) the consequences.

Choices:

- 1.explanations, debates, excuses, examples
- 2.function, use, stabilize, maintain
- 3.rough, rampant, incompetent, irresponsible
- 4.counting, understanding, correcting, valuing

Crime prevention has a long history in Australia, and in other parts of the world. In all societies, people have tried to (Answer: protect) themselves and those close to them from assaults and other abuses. Every time someone locks the door to their house or their car, they practice (Answer: a form of) prevention. Most parents want their children to learn to be law abiding and not spend extended periods of their lives in prison. In this country, at least, most (Answer: succeed). Only a small minority of young people become recidivist offenders. In a functioning society, crime prevention is part of everyday life. While prevention can be all-pervasive at the grassroots, (Answer: it) is oddly neglected in mass media and political discourses. When politicians, talkback radio hosts and newspaper editorialists pontificate about crime and (Answer: possible) remedies, it is comparatively rare for them to mention prevention. Overwhelmingly, emphasis is on policing, sentencing and other 'law and order' responses.

Choices:

- 1.promote, respect, protect, enhance
- 2.a number of, a form of, relation to, addition to
- 3.success, had succeeded, succeed, succeeded
- 4.which, it, what, as
- 5.default, possible, articulate, absolute

International trade allows countries to expand their markets and access goods and services that (Answer: otherwise) may not have been available domestically. As a (Answer: result) of international trade, the market is more efficient. This ultimately leads to more competitive pricing and brings (Answer: cheaper) products to consumers.

Choices:

- 1.either, thus, otherwise, likely
- 2.result, prelude, degree, delegation
- 3.cheaper, newer, all, novel

Steven Pinker, a cognitive psychologist best known for his book "The Language Instinct", (Answer: has called) music "auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties." If it vanished from our species, he said, "the rest of our lifestyle would be (Answer: virtually) unchanged." Others have argued that, on the (Answer: contrary), 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 (Answer: avid) music enthusiast, comes down somewhere in the middle. He says that music is (Answer: ingrained) in our auditory, cognitive and motor functions. We have a music instinct as much as a language instinct, and could not rid ourselves of it if we tried.

Choices:

- 1.have called, calling, call, has called
- 2.rarely, cynically, nearing, virtually
- 3.end, contrary, whole, top
- 4.pretentious, presumptuous, ambitious, avid
- 5.enacted, installed, empowered, ingrained

"The Plains Indians were people who did not like to live in one place. They liked to travel around and moved camps (Answer: at least) three times a year. For this reason they lived in tepees. These were (Answer: like) big tents and were easy to put up and take down. These tepees were transported by horses." "Inside the tepee you would find all the items that people needed to live with. The Plains Indians would decorate the insides with pictures, and store their weapons and food. The Indians would also have a fire (Answer: in the middle) of the tepee to cook the food. The Sioux people (Answer: used to) put buffalo skins on the floor to use as carpets. You would also find their beds." "In the Indian camp everyone had a job to do. The men had to hunt for food, and keep the families safe. The women had to cook all the meals, make the clothes, look (Answer: after) the children and whenever the camp moved they had to take down and put up the tepees."

Choices:

- 1.at least, fewer than, at most, less than
- 2.both, alike, like, otherwise
- 3.On the top, In spite, in the middle, in terms
- 4.have used to, were used, used to, using to
- 5.at, up, after, around

Coral reefs (Answer: support) more marine life than any other ocean ecosystem and are, not (Answer: surprisingly), a favorite pursuit for many divers. But as well as being physically and biologically spectacular, coral reefs also sustain the livelihoods of over half a billion people. What is more, this number is expected to (Answer: double) in coming decades while the area of high-quality reef is expected to halve. In combination with the very real threat of climate change, which could

lead to increased seawater temperatures and ocean acidification, we start to arrive at some quite frightening scenarios.

Choices:

- 1.curb, harvest, support, cultivate
- 2.seemingly, specifically, demandingly, surprisingly
- 3.appear, double, countdown, unravel

There has been a great variety of critical approach to Shakespeare's work since his death. During the 17th (Answer: and) 18th centuries, Shakespeare was both admired and condemned. Since then, much of the adverse criticism (Answer: has not been) considered relevant, although certain issues have continued to interest critics throughout the years. For instance, charges against his moral propriety were made by Samuel Johnson in the 18th century and by George Bernard Shaw in the 20th. Early criticism was directed (Answer: primarily) at questions of form. Shakespeare was criticized for mixing comedy and tragedy and failing to observe the unities of time and place (Answer: prescribed) by the rules of classical drama. Dryden and Johnson were among the critics claiming that he had (Answer: corrupted) the language with false wit, puns, and ambiguity. (Answer: While) some of his early plays might justly be charged with a frivolous use of such devices, 20th-century criticism has tended to praise their use in later plays as adding depth and resonance of meaning.

Choices:

- 1.to, or, and, with
- 2.not being, should have not been, has not been, was not
- 3.consecutively, primarily, hardly, solely
- 4.subscribed, documented, described, prescribed
- 5.versed, referred, deteriorated, corrupted
- 6.Since, Because, That, While

Bhutan used to be one of the most isolated nations in the world. Developments including direct international flights, the Internet, mobile phone networks, and cable television have (Answer: increasingly) modernized the urban areas of the country. Bhutan has (Answer: balanced) modernization with its ancient culture and traditions under the guiding philosophy of Gross National Happiness (GNH). Rampant (Answer: destruction) of the environment has been avoided. The government takes great (Answer: measures) to preserve the nation's traditional culture, identity and the environment. In 2006, Business Week magazine rated Bhutan the happiest country in Asia and the eighth-happiest in the world, (Answer: citing) a global survey conducted by the University of Leicester in 2006 called the "World Map of Happiness".

Choices:

- 1.spontaneously, increasingly, contemporarily, mechanically

- 2.juggled, opted, balanced, altered
- 3.destruction, embodiment, vanity, execution
- 4.pride, measures, effects, allowance
- 5.submitting, citing, reviewing, proving

Spanish is spoken by more than 300 million people in over 20 countries and is rapidly becoming one of the most popular (Answer: choices) for language learners around the world. A popular course for beginners, Suenos World Spanish is designed to (Answer: meet) the varied needs of adult learners, (Answer: whether) learning at home or in a class. From the very beginning it encourages you to develop your listening and speaking skills with confidence and (Answer: provides) many opportunities to practice reading in Spanish. Using the extensive (Answer: range) of media available, from the course book to the audio CDs or cassettes, to the popular accompanying television series and free online (Answer: activities), Suenos World Spanish can help you reach the equivalent level of a first qualification, such as GCSE.

Choices:

- 1.commodities, choices, records, improvements
- 2.record, meet, choose, satisfies
- 3.as, whether, nor, not
- 4.applies, provides, encroaches, initiates
- 5.series, range, rate, wisdom
- 6.actions, activities, breaches, binge

ONE AUSTRALIA

An important corollary of this focus on language as the window to legal epistemology is the central role of (Answer: discourse) to law and other sociocultural processes. In particular, the (Answer: ideas) that people hold about how language works combine with (Answer: linguistic) structuring to create powerful, often unconscious effects. In recent years, linguistic anthropologists have made much progress in developing more precisely analytic tools for tracking those effects.

Choices:

- 1.discourse, epoch, dialect, acquaintance
- 2.deviation, besmirch, consent, ideas
- 3.mandatory, linguistic, legitimate, customary

The widespread use of artificial light in modern societies means that light pollution is an increasingly common feature of the environments humans inhabit. This type of pollution is (Answer: exceptionally) high in coastal regions of tropic and temperate zones, as these are areas of high rates of human population growth and settlement. Light pollution is a threat for many species that inhabit

these locations, particularly those whose ecology or behavior depends, (Answer: in some way), on natural cycles of light and dark. Artificial light is known to have detrimental effects on the ecology of sea turtles, particularly at the hatchling stage when they emerge from nests on natal beaches and head towards the sea. Under natural conditions, turtles hatch predominantly at night (although some early morning and late afternoon emergence occurs) and show an innate and well-directed orientation to the water, (Answer: relying) mostly on light cues that attract them toward the brighter horizon above the sea surface. Artificial lighting on beaches is strongly attractive to hatchlings and can cause (Answer: them to move) away from the sea and interfere with their ability to orient in a constant direction. Ultimately, this disorientation due to light pollution can lead to death of hatchlings from exhaustion, dehydration and predation.

Choices:

- 1.exceptionally, absolutely, completely, rarely
- 2.in no way, in some way, by the way, in some ways
- 3.imposing, figuring, relying, pouring
- 4.them to move, it to move, which to move, that to move

Kathryn Mewes does not meet bohemian, hippy parents in her line of work. Typically one, or both, of the parents she sees work in the City of London. "Professionals seek professionals," she says. Originally a nanny, Mewes is now a parenting consultant, advising couples privately on changing their child's behavior, (Answer: as well as) doing corporate seminars for working parents. Her clients find they are unprepared for the chaos and unpredictability that having a child can entail. "Parents are getting older, and they have been in control of their (Answer: whole) lives and been successful. Suddenly a baby turns up and life turns on its head." Nicknamed the "Three-Day Nanny" (Answer: because of) her pledge to fix behavioral problems in children under the age of 12 within three days, she is filming a new Channel 4 television series demonstrating her techniques. The (Answer: role) of the parenting consultant — distinct from that of a nanny — has developed, she says, as people are used to buying in expertise, such as personal trainers or, in her case, parenting advice.

Choices:

- 1.as long as, in order to, in spite of, as well as
- 2.whole, all, full, every
- 3.related with, together with, because of, according to
- 4.percentage, feature, role, part

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 (Answer: at the same time)? Easily, according to two physicians at Children's Hospital Boston and Harvard Medical School (HMS) who have been (Answer: exploring) the unique structure and chemistry of the adolescent brain."The teenage brain is not just an (Answer: adult) brain with fewer

miles on it," says Frances E. Jensen, a professor of neurology. "It's a paradoxical time of (Answer: development). These are people with very sharp brains, but they're not quite sure what to do with them." Research during the past 10 years, powered by technology such as functional magnetic resonance imaging, has revealed that young brains have (Answer: both) fast-growing synapses and sections that remain unconnected. This leaves teens easily influenced by their environment and more prone to impulsive behavior, even without the (Answer: impact) of souped-up hormones and any genetic or family predispositions.

Choices:

1. for the time being, at the same time, as ever, in good time
2. exposing, exploring, enumerating, explaining
3. ample, adult, adulthood, abundant
4. enrichment, development, adulthood, adoration
5. both, few, whole, either
6. impact, impress, impair, impose

Research demonstrates that facial appearance affects social perceptions. The current research investigates the reverse (Answer: possibility) : Can social perceptions influence facial appearance? We examine a social tag that is associated with us early in life — our given name. The hypothesis is that name stereotypes can be manifested in facial appearance, producing a face-name matching effect, (Answer: whereby) both a social perceiver and a computer are able to accurately match a person's name to his or her face. In 8 studies we demonstrate the (Answer: existence) of this effect, as participants examining an unfamiliar face accurately select the person's true name from a list of several names, significantly above chance level. We replicate the effect in 2 countries and find that it extends (Answer: beyond) the limits of socioeconomic cues. We also find the effect using a computer-based paradigm and 94,000 faces. In our exploration of the underlying mechanism, we show that existing name stereotypes produce the effect, as its occurrence is culture-dependent. A self-fulfilling (Answer: prophecy) seems to be at work, as initial evidence shows that facial appearance regions that are controlled by the individual (e.g., hairstyle) are (Answer: sufficient) to produce the effect, and socially using one's given name is necessary to generate the effect. Together, these studies suggest that facial appearance represents social expectations of how a person with a specific name should look. In this way a social tag may influence one's facial appearance.

Choices:

1. link, possibility, oddness, polarity
2. notwithstanding, ever, whereby, despite
3. indolence, evanescence, existence, transience
4. into, beyond, within, by
5. prophecy, observation, preference, stipulation
6. sufficient, proficient, efficient, scant

First, the scientific community that studies climate change is quietly panic-stricken, because things are moving (Answer: much) faster than they expected. Greenhouse gas emissions are going up faster than (Answer: predicted) both from industrializing countries in Asia and from melting permafrost in Siberia and Canada. The Arctic Sea ice is melting so fast that the whole ocean may be ice-free in late summer in five years' time. Most climate scientists now see last year's report of the Intergovernmental Panel on Climate Change, whose forecasts are used by most governments for planning purposes, as a (Answer: purely) historical document. Second, the biggest early impact of global warming will be on the food supply, both locally and globally. When the global average temperature hits one and a half degrees hotter - and it will; the carbon dioxide already in the atmosphere (Answer: commits) us to that much warming - some countries will no longer be able to feed their people. Others, further from the equator, will still have enough food for themselves, but none to (Answer: spare).

Choices:

- 1.few, same, much, most
- 2.anticipation, predictability, predicted, predicts
- 3.purely, evenly, disproportionately, firmly
- 4.commits, directs, allows, addresses
- 5.spare, dispense, apply, consume



As digitalization and smart automation progress, many will see their jobs altered. Advances in automation technologies will mean that people will (Answer: increasingly) work side by side with robots, smart automation and artificial intelligence. Businesses will look for employees who are good at the tasks that smart automation (Answer: struggles) to do and that add value to the use of smart automation. In the past, technological progress has had a positive impact on our society, increasing labour productivity, wages and prosperity. Right now, a new technological wave of digitalization and smart automation — (Answer: combinations) of artificial intelligence, robotics and other technologies — is fundamentally transforming the way we work, at an unprecedented pace. (Answer: For example) , data analytics, the Internet of Things and drones are already used in many industries to make production processes better, faster, and cheaper. We already see shifts in the structure of employment: in industries, tasks, educational levels and skills.

Choices:

- 1.increase, increasingly, increasing, increased
- 2.struggled, struggling, struggles, used to struggle
- 3.combinations, combines, combining, combine
- 4.Instead, Of course, No wonder, For example

Disadvantage in early childhood poses multiple risks to children's development. Factors such as low socioeconomic status, long-term unemployment of parents, and social isolation may have lasting (Answer: impacts) on a child's chance of reaching their full potential. Whilst not eliminating disadvantage, preschool education can help to (Answer: lessen) the effects of these risk factors and can provide children with a better start to school. However, some of these factors may also be (Answer: barriers) to preschool attendance for groups that would benefit most from preschool education. In Australia, the early years of children's education is the responsibility of many government and non-government agencies and it occurs in a range of settings. Preschool is aimed at children around four years of age to (Answer: prepare) them for compulsory schooling from the age of six years. In most states and territories, children can start full-time schooling at five years of age, when they enroll in a kindergarten or preparatory year. In 2001, just over half of five-year olds (57%) were at school with about a third (34%) attending preschool. While in some states and territories children can (Answer: commence) preschool before they turn four, participation rates for three-year olds are much lower than four-year olds (24% compared with 56% for four-year olds in 2001). The preschool participation rate of four-year olds in 2001 (56%) was similar to the rate in 1991 (58%).

Choices:

1. impressions, impacts, affects, variations
2. lessen, hold, hoist, promote
3. barriers, roundabouts, accesses, factors
4. undo, fix, tie, prepare
5. commence, alter, delay, escap

Over 800 Shakespeare scholars from almost fifty countries will gather at King's College London next week as the university co-hosts the 10th World Shakespeare Congress to explore and honor the Bard's life and work. Organized by the International Shakespeare Association, the World Congress (Answer: is) held every five years and 2016 is the first time it will be co-hosted in two locations that were integral to both the personal and working life of William Shakespeare. Delegates will arrive (Answer: in) London on Thursday following the start of the Congress on Sunday in Stratford-upon-Avon. (Answer: With) a main theme of 'Creating and Recreating Shakespeare', the Congress will look (Answer: at) the continuing global relevance of Shakespeare's work through a varied program of plenaries, panels, seminars and workshops.

Choices:

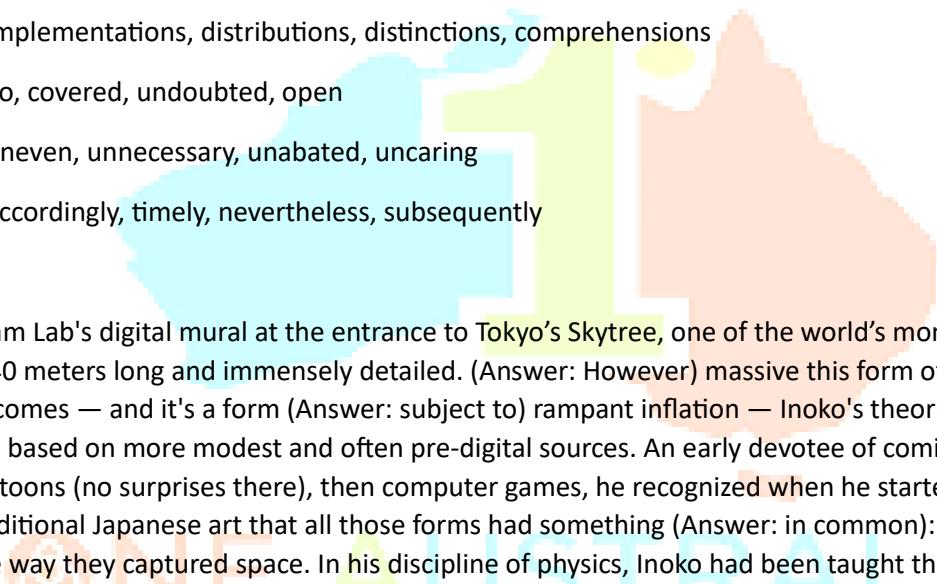
1. are, is, is being, will
2. in, at, on, to
3. Above, With, To, Beyond
4. in, at, over, up

I do not think I am twisting the usual meaning of drama if I define it as a presentation before spectators by performers who take on roles and who interact with each other to further a story or a

text intended for such presentations. This is intended as a (Answer: working) definition simple enough to be recalled easily. Indeed, it is so simple that I should point out that it makes one or two (Answer: distinctions) that are perhaps not immediately obvious. First, to say that performers "take on roles" leaves (Answer: open) the possibility that they are not within the roles to other performances as such alternative phrases as "performers in character" or "characters represented by actors" do not. To say that the performers "interact with each other" might seem (Answer: unnecessary), but is in fact important, for in traditional societies there are many performances in which different characters appear successively and simultaneously but, (Answer: nevertheless), do not interact. And I say "to further a story" because a progression of the story may not provide the structure of the performance.

Choices:

- 1.hanging, working, using, applying
- 2.implementations, distributions, distinctions, comprehensions
- 3.go, covered, undoubted, open
- 4.uneven, unnecessary, unabated, uncaring
- 5.accordingly, timely, nevertheless, subsequently



Team Lab's digital mural at the entrance to Tokyo's Skytree, one of the world's monster skyscrapers, is 40 meters long and immensely detailed. (Answer: However) massive this form of digital art becomes — and it's a form (Answer: subject to) rampant inflation — Inoko's theories about seeing are based on more modest and often pre-digital sources. An early devotee of comic books and cartoons (no surprises there), then computer games, he recognized when he started to look at traditional Japanese art that all those forms had something (Answer: in common): something about the way they captured space. In his discipline of physics, Inoko had been taught that photographic lenses, (Answer: along with) the conventions of western art, were the logical way of transforming three dimensions into two, conveying the real world onto a flat surface. (Answer: But) Japanese traditions employed 'a different spatial logic', as he said in an interview last year with j-collabo.org, that is 'uniquely Japanese'.

Choices:

- 1.However, Whereas, Whichever, Wherever
- 2.subject to, related with, apart from, based on
- 3.in fact, as whole, In common, in the same terms
- 4.apart from, further afield, along with, out of
- 5.Thus, So, Therefore, But

Academic writing is (Answer: expression) of logic that is the product of thinking. This (Answer: means) that the writing that you produce is a (Answer: reflection) of your intellectual abilities. It

(Answer: puts) into words your knowledge and your conceptual understanding and shows (Answer: evidence) of your ability to think critically.

Choices:

- 1.expectation, entitlement, expression, exchange
- 2.means, questions, stipulates, answers
- 3.redundancy, mission, credit, reflection
- 4.enriches, shows, allows, puts
- 5.hassle, excuse, capacity, evidence

In any given population, about ten percent of the people are left-handed and this figure remains (Answer: relatively) stable over time. So-called “handedness” runs in families, but what causes it and why the proportion of left-handed to right-handed people is a constant are still a mystery. One thing we do know is that hand (Answer: dominance) is related to brain asymmetry; and it seems to be generally agreed that the human brain is profoundly asymmetric, and that understanding how this works will tell us much about who we are and how our brains work. Brain (function) is (Answer: distributed) into the left and right hemispheres, and this is crucial for understanding language, thought, memory, and perhaps even creativity. For right-handed people, language activity is mainly on the left side. Many left-handers also have left-side language dominance, but a significant number may have language either more (Answer: evenly) distributed in both hemispheres or else predominantly on the right side of the brain. Because left-handedness is seen as a key to the complex anatomy of the brain, scientists are searching for links to other (Answer: conditions), including immune disorders, learning disabilities, and reduced life expectancy.

Choices:



- 1.relative, closely, thus, relatively
- 2.dominance, proportion, strength, balance
- 3.figured, changed, distributed, added
- 4.largely, mainly, barely, evenly
- 5.conclusions, roundabouts, preferences, conditions

The heart functions as a pump at the centre of the circulatory system. In humans it is located in the chest cavity, between the lungs, (Answer: a bit) to the left. The heart consists of four chambers surrounded by a very strong muscular wall, the myocardium. The upper chambers, the right and left atria, (Answer: receive) blood entering the heart, and the lower chambers, the right and left ventricles pump the blood out of the heart, via the pulmonary and the systemic circulatory systems. The two systems work as (Answer: follows). Blood from the body enters the right atrium, (Answer: is) passed into the right ventricle and from there is propelled through the pulmonary artery to the lungs. In the lungs the blood releases carbon dioxide and absorbs oxygen and is then (Answer:

transported) back to the heart into the left atrium. From here it passes into the left ventricle, which pumps the oxygenated blood around the body.

Choices:

- 1.compared, rather than, a bit, less than
- 2.lower, receive, repel, transfer
- 3.well, followed, follows, follow
- 4.being, is, has, had
- 5.transporting, transported, transport, having transported

The logic of the scientific method was set out by John Stuart Mill in 1843 and was (Answer: named) the method of difference. A simple example of what he (Answer: meant) by this is to take two glasses of water which are identical in every (Answer: respect). Introduce a few drops of ink into one of these glasses. The water changes color! (Answer: According) to Mill's method of difference it is safe to (Answer: assume) that the change in the color of the water is due to the (Answer: introduction) of a new factor — the independent variable — in this case, the ink.

Choices:

- 1.pointed, claimed, demanded, named
- 2.capped, charged, found, meant
- 3.measure, thought, identity, respect
- 4.Compared, According, Contrary, Sorted
- 5.assume, discuss, prefer, acclaim
- 6.introduction, magnitude, preparation, purification

Many people today think of culture in the way that it was thought of in Europe during the 18th and early 19th centuries. This (Answer: concept) of culture reflected inequalities within European societies and their colonies around the world. This understanding of culture equates culture with civilization and contrasts both with nature or non-civilization. According to this understanding of culture, some countries are more civilized than others, and some people are more cultured than others. Anything that doesn't (Answer: fit) into this category is labeled as chaos or anarchy. From this perspective, culture is closely tied to cultivation, which is the progressive refinement of human (Answer: behavior). In practice, culture referred to elite goods and activities such as haute cuisine, high fashion or haute couture, museum-caliber art and classical music. The word cultured referred to people who knew about and took part in these activities. For example, someone who used culture in this sense might (Answer: argue) that classical music is more refined than music by working-class people, such as jazz or the indigenous music traditions of aboriginal peoples.

Choices:

- 1.classification, concept, renovation, identity
- 2.cut, dismiss, fit, solve
- 3.blessing, curse, habit, behavior
- 4.argue, doubt, pretend, reveal

Neuropsychological testing is one way to (Answer: assess) cognitive health. However, this option can be costly and labor intensive. In many cases, basic screening will suffice for an understanding of a given individual's cognitive health status. There are a number of excellent tools available to (Answer: practitioners) for basic screening and tracking of cognitive health. Many of these tools are designed for use with older people, but some are meant for use with younger people as well. The Alzheimer's Association website offers a cognitive assessment toolkit that includes the Medicare Annual Wellness Visit algorithm for the assessment of cognition. This assessment uses patient history, observations by clinicians, and concerns (Answer: raised) by the patient, family, or caregivers. The toolkit further includes three measures (Answer: validated) for use by professionals to assess and track a patient's cognitive health. These measures include the General Practitioner Assessment of Cognition, Memory Impairment Screen, and the Mini-Cog brief psychometric test.

Choices:

- 1.obsess, assess, possess, access
- 2.stationers, practitioners, petitioners, questioners
- 3.raised, rising, arising, praised
- 4.validated, intimidated, dilapidated, antedated



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 (Answer: 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 (Answer: 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 (Answer: 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 (Answer: scorching) desert floor and enable them to speed around at up to 60 cm per second. The researchers, who publish the findings on ant locomotion and navigation in the Journal of Experimental Biology, believe that robotics will be one of the first technologies (Answer: to benefit) from the discovery.

Choices:

- 1.its, own, that, their
- 2.abandons, abandon, abandoning, abandoned

- 3.saw, seen, having seen, have seen
- 4.emotional, stuck, uncensored, scorching
- 5.benefited, to benefit, benefit, benefits

It is tempting to try to prove that good looks win votes, and many academics have tried. The (Answer: difficulty) is that beauty is in the eye of the (Answer: beholder), and you cannot behold a politician's face without a veil of extraneous prejudice getting in the way. Does George Bush possess a disarming grin, or a facetious (Answer: smirk)? It's hard to find anyone who can look at the president without assessing him politically as well as (Answer: physically).

Choices:

- 1.principle, idea, difficulty, concept
- 2.people, beholder, builder, audience
- 3.smell, complexion, smirk, binge
- 4.culturally, physically, economically, individually

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 (Answer: turned to) the biological world for inspiration to build a scaled-down helicopter that could mimic the properties of full-size aircraft. The complex (Answer: design) 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 (Answer: had beaten) them to it. The seeds of trees such as the maple have a single-blade structure that (Answer: allows) them to fly far away and drift safely to the ground. These seeds, known as samaras, need no engine to (Answer: spin) 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.

Choices:

- 1turned to, turned for, turned in, turned off
- 2overhaul, gauge, imagination, design
- 3is beating, was beaten, had beaten, beaten
- 4had allowed, allowed, allows, will allow
- 5spin, fluctuate, drift, fly

Underground houses have many advantages over conventional housing. Unlike conventional homes, they can be built on (Answer: steep) surfaces and can maximize space in small areas by going below the surface. In addition, the materials excavated in construction can be used in the building process.

Underground houses have less surface area so fewer building materials are used, and (Answer: maintenance) costs are lower. They are also wind, fire, and earthquake resistant, providing a secure and safe environment in extreme weather. One of the greatest benefits of underground living is energy (Answer: efficiency). The earth's subsurface temperature remains stable, so underground dwellings benefit from geothermal mass and heat exchange, staying cool in the summer and warm in the winter. This saves around 80% in energy costs. By (Answer: incorporating) solar design this energy bill (Answer: can be reduced) to zero, providing hot water and heat to the home all year round.

Choices:

- 1.geometric, flat, overhead, steep
- 2.heating, buoyancy, maintenance, facility
- 3.ratio, consistency, efficiency, renewal
- 4.intriguing, initiating, incorporating, inventing
- 5.has reduced, can be reduced, can reduce, has been reduced

At the local and state level, demanding funding for repairs and improvement to outdated transit infrastructure will greatly reduce the noise caused by trains, cars, and trucks. Urban-planning approaches to (Answer: eliminating) noise on a city-by-city basis can be as simple as taking a single lane away from cars and giving it to bicycles, people, or green space. Improving, expanding, and properly funding public transit removes cars from the road, both reducing the sound they (Answer: produce) and replacing it with quieter options like trams and high-speed light-rail. In architecture, acoustics should play a greater (Answer: role) in all structures, from mundane apartment buildings to the grandest art museums. Noise control should be a consideration from the very first planning stage, (Answer: rather) than tacked on as an afterthought.

Choices:

- 1.eliminate, eliminating, eliminated, have eliminated
- 2.conceal, absorb, dent, produce
- 3.stage, situation, role, game
- 4.likely, longer, rather, more

The prospect of learning something from history is what makes sociologists tick. It is through (Answer: developing) a systematic understanding of the forces which shape our lives that we (Answer: can) exercise control over them. The founding thinkers of sociology, who (Answer: came) to prominence during the development of what we are pleased to call modernity, thought so. It is the intimate relationship between the development of sociology and the development of modernity that the course begins with. This relationship is an intimate one, because it is (Answer: only) with the social change instituted in the development of the modern world that a discipline such as sociology and social science in general could either exist or have anything to study.

Choices:

- 1.developing, delivering, covering, deterring
- 2.can, wish, deny, doubt
- 3.went, came, were, reached
- 4.only, roughly, randomly, never

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 (Answer: restrict) and control the flow of water in a river. (Answer: Throughout) history, dams have been used to prevent flooding and to irrigate (water) 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, (Answer: however), some negative effects of damming rivers. Many people's homes are (Answer: 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.

Choices:

- 1.channel, cross, span, restrict
- 2.In, For, Against, Throughout
- 3.again, never, also, however
- 4.traded up, worn off, knocked down, moved on

Although not written about extensively, a few individuals have considered the concept and act of cheating in (Answer: history) as well as contemporary culture. J. Barton Bowyer writes that cheating 'is the advantageous distortion of perceived reality. The advantage falls to the cheater because the cheated person (Answer: misperceives) what is assumed to be the real world'. The cheater is taking advantage of a person, a situation, or (Answer: both). Cheating also involves 'distortion of perceived reality' or what others call 'deception'. Deception can involve hiding the 'true' reality or 'showing' reality in a way intended to deceive others.

Choices:

- 1.journal, tale, life, history
- 2.misperceives, deceives, perceives, receives
- 3.none, both, neither, either

Research has suggested that major stressors in our lives are life (Answer: changes), for example, moving house, marriage or relationship breakdown. Work-related factors, (Answer: including)

unemployment and boredom, are also common (Answer: causes) of stress. Differences in personality may also (Answer: play) a part.

Choices:

- 1.collections, expectations, appearances, changes
- 2.have included, including, include, included
- 3.conferences, courses, causes, factors
- 4.act, play, list, give

Even after thousands of years exploring Earth, we're still uncovering new things like an ancient 'superhighway' in the Guatemalan rain forest. Hidden beneath a thick layer of vegetation, the (Answer: network) of roads stretches over 150 miles and was most likely built by the Mayan empire some 2,000 years ago. The newly mapped roads are connected to the ruins of El Mirador (sometimes called the Kan Kingdom) in northern Guatemala. Archaeologists believe El Mirador (Answer: was founded) around the 6th century BCE, and was at its most powerful around the early first century CE. At that time, it had a population of as many as a quarter of a million, a quarter the size of Rome itself at the time. It also has some of the largest pyramids in the world. It was the (Answer: heart) of the Mayan civilization, and naturally needed some major roadways. The roads of El Mirador have been known about since 1967, but scientists had no idea how extensive they were until now. The thick jungle obscured the remnants of the road, (Answer: making) it difficult to see from the air.

Choices:

- 1.network, surface, interface, width
- 2.has founded, founded, was founded, was founding
- 3.volume, heart, column, facet
- 4.makes, making, make, made

The teaching of languages could be revolutionised following ground-breaking research by Victoria University, New Zealand, PhD graduate Paul Sulzberger. Dr Sulzberger has found that the best way to learn a language is through frequent exposure to its sound patterns—even if you haven't a (Answer: clue) what it all means. "However crazy it might sound, just listening to the language, (Answer: even though) you don't understand it, is critical. A lot of language teachers may not accept that," he says. "Our ability to learn new words is directly related to how often we have been exposed to the particular combinations of the sounds which make (Answer: up) the words. If you want to learn Spanish, for example, frequently listening to a Spanish language radio station on the internet will dramatically (Answer: boost) your ability to pick up the language and learn new words." Dr Sulzberger's research challenges existing language learning theory. His main hypothesis is that simply listening to a new language sets up the structures in the brain (Answer: required) to learn the words.

Choices:

- 1.dew, claw, clue, due

- 2.but also, all together, even though, if so
- 3.down, up, of, on
- 4.evaluate, exaggerate, describe, boost
- 5.requiring, required, directed, to require

If you are interested in studying but have other (Answer: commitments), our online and distance learning courses offer an alternative flexible (Answer: mode) of study. Teaching is conducted through a mixture of audio-visual, written and interactive materials. There are also (Answer: opportunities) for online discussion and collaborative projects with tutors and other students. Some programs include residential (Answer: modules) taught on campus, giving you the chance to meet and work alongside your tutors and fellow students face-to-face. Our Graduate School provides comprehensive support for distance and part-time researchers, many of whom study for up to six years or more.

Choices:

- 1.options, decisions, commitments, barriers
- 2.mode, venue, tariff, rate
- 3.displacements, opportunities, exaggerations, impressions
- 4.modules, disclaimers, belongs, exercises

Willful blindness had started life as a legal concept in the nineteenth century. A judge in *Regina v. Sleep* ruled that an accused could not be convicted for possession of government property (Answer: unless) the jury found that he either knew the goods came from government stores or had "willfully shut his eyes to the fact." Thereafter, English judicial authorities referred to the state of mind that accompanied one who "willfully shut his eyes" as "connivance" or "constructive knowledge." Over time, lots of other phrases came into play—"deliberate or willful ignorance," "conscious avoidance," and "deliberate indifference." What they all have in (Answer: common) is the idea that there is an opportunity for knowledge and a responsibility to be informed, but it is shirked. Nowadays, the law is (Answer: most) often applied in cases of money laundering and drug trafficking: if you've been paid a large amount of money to carry a suitcase, then you are being willfully blind if you don't check what is inside.

Choices:

- 1.since, unless, although, thereby
- 2.contrast, total, relation, common
- 3.little, few, most, less

The aim of this book is to give the reader an overview of study and practice in the field of public archaeology. It offers a series of snapshots of important ideas and areas of work brought together as an introduction, (Answer: albeit) an inevitably brief and incomplete one, to one of the most

challenging and rewarding parts of the wider archaeological discipline. Read the book from cover to cover and you will have a good working understanding of public archaeology as a complicated, rich and diverse field, as well as knowledge of some of the most significant and iconic examples of public archaeology in action. (Answer: Dip) into a specific chapter and you will find a concise and insightful introduction to one aspect of public archaeology with case studies and a list of readings to develop your understanding. (Answer: However) you use this book I am confident that you will emerge with a better understanding of what public archaeology is, why it matters and what you can do about it. First, it is necessary and useful, drawing on the quotes above, to ask what we mean by public archaeology, and to examine some of the different ways it has been defined.

Choices:

- 1.because, albeit, unless, despite
- 2.Tip, Give, Change, Dip
- 3.As, That, However, How

The six programs represented here report that word of mouth is by far their most effective recruitment tool, particularly because it typically yields candidates who are similar to previously successful candidates. Moreover, satisfied candidates and school systems are likely to (Answer: spread) the word without any special (Answer: effort) on the part of their program. Other less personal advertising approaches, such as radio and television spots and local newspaper advertisements, have also proven fruitful, (Answer: especially) for newer programs. New York uses a print advertising campaign to inspire dissatisfied professionals to become teachers. Subway posters send provocative (Answer: messages) to burned-out or disillusioned professionals. "Tired of diminishing returns? Invest in NYC kids" was just one of many Madison Avenue-inspired invitations. News coverage has also proven to be a (Answer: boon) to alternative programs. When the New York Times, for example, ran a story about the district's alternative route program, 2,100 applications flooded in over the next six weeks.

Choices:

- 1.spread, deepen, unfold, splay
- 2.effect, errand, effort, emotion
- 3.rarely, totally, especially, likely
- 4.telling, warning, messages, stories
- 5.facet, charge, boon, burden

A bonus of dendrochronology is that the width and substructure of each ring (Answer: reflect) the amount of rain and the (Answer: season) at which the rain fell during that particular year. Thus, tree ring studies also allow one to reconstruct (Answer: past) climate; e.g., a series of wide rings means a wet period, and a (Answer: series) of narrow rings means a (Answer: drought).

Choices:

- 1.covet, reflect, register, copy
- 2.timing, duration, division, season
- 3.then, before, past, pass
- 4.seam, serious, serial, series
- 5.drought, hardness, humidity, strength

Thus the environmental policy does not contribute to the profitability in any real sense at all. In practice it is companies that are well organized and efficient, or that are already comfortably profitable, that have time to (Answer: establish) and police environmental policies. However, if profitable companies are the ones most likely to establish 'environmental best (Answer: practice)' this is confusing cause with effect. It is not that environmental best practice causes profitability, but that being profitable allows for (Answer: concern) for the environment.

Choices:

- 1.cater, enlist, enrol, establish
- 2.practice, vocation, code, revision
- 3.concern, level, effect, bother

Since the beginning of the financial crisis, there have been two principal (Answer: explanations) for why so many banks made such disastrous decisions. The first is structural. Regulators did not regulate. Institutions failed to (Answer: function) as they should. Rules and guidelines were either inadequate or ignored. The second explanation is that Wall Street was (Answer: incompetent), that the traders and investors didn't know enough, that they made extravagant bets without (Answer: understanding) the consequences.

Choices:

- 1.explanations, debates, excuses, examples
- 2.function, use, stabilize, maintain
- 3.rough, rampant, incompetent, irresponsible
- 4.counting, understanding, correcting, valuing

Crime prevention has a long history in Australia, and in other parts of the world. In all societies, people have tried to (Answer: protect) themselves and those close to them from assaults and other abuses. Every time someone locks the door to their house or their car, they practice (Answer: a form of) prevention. Most parents want their children to learn to be law abiding and not spend extended periods of their lives in prison. In this country, at least, most (Answer: succeed). Only a small minority of young people become recidivist offenders. In a functioning society, crime prevention is part of everyday life. While prevention can be all-pervasive at the grassroots, (Answer: it) is oddly neglected

in mass media and political discourses. When politicians, talkback radio hosts and newspaper editorialists pontificate about crime and (Answer: possible) remedies, it is comparatively rare for them to mention prevention. Overwhelmingly, emphasis is on policing, sentencing and other 'law and order' responses.

Choices:

- 1.promote, respect, protect, enhance
- 2.a number of, a form of, relation to, addition to
- 3.success, had succeeded, succeed, succeeded
- 4.which, it, what, as
- 5.default, possible, articulate, absolute



International trade allows countries to expand their markets and access goods and services that (Answer: otherwise) may not have been available domestically. As a (Answer: result) of international trade, the market is more efficient. This ultimately leads to more competitive pricing and brings (Answer: cheaper) products to consumers.

Choices:

- 1.either, thus, otherwise, likely
- 2.result, prelude, degree, delegation
- 3.cheaper, newer, all, novel



Steven Pinker, a cognitive psychologist best known for his book "The Language Instinct", (Answer: has called) music "auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties." If it vanished from our species, he said, "the rest of our lifestyle would be (Answer: virtually) unchanged." Others have argued that, on the (Answer: contrary), 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 (Answer: avid) music enthusiast, comes down somewhere in the middle. He says that music is (Answer: ingrained) in our auditory, cognitive and motor functions. We have a music instinct as much as a language instinct, and could not rid ourselves of it if we tried.

Choices:

- 1.have called, calling, call, has called
- 2.rarely, cynically, nearing, virtually
- 3.end, contrary, whole, top
- 4.pretentious, presumptuous, ambitious, avid
- 5.enacted, installed, empowered, ingrained

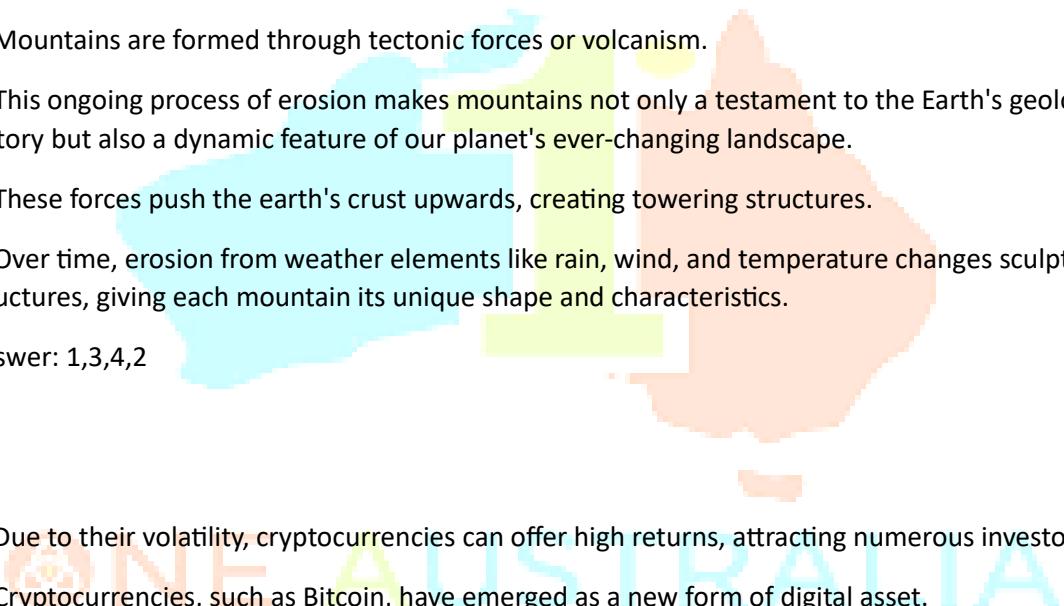


REORDER PARAGRAPH

ONE AUSTRALIA

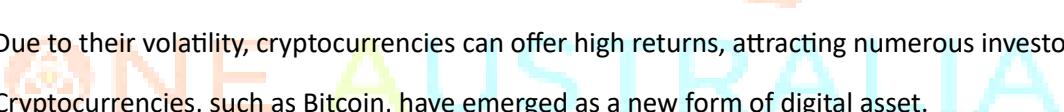
- 1) These forests cover only 6% of the Earth's surface but contain more than half of the world's plant and animal species.
- 2) However, deforestation is posing a severe threat to these biodiverse environments, leading to the loss of species and contributing to global climate change.
- 3) Rainforests are Earth's oldest living ecosystems, with some surviving in their present form for at least 70 million years.
- 4) The dense canopy of the rainforest blocks sunlight, creating a humid understory teeming with life.

Answer: 3,1,4,2



- 1) Mountains are formed through tectonic forces or volcanism.
- 2) This ongoing process of erosion makes mountains not only a testament to the Earth's geological history but also a dynamic feature of our planet's ever-changing landscape.
- 3) These forces push the earth's crust upwards, creating towering structures.
- 4) Over time, erosion from weather elements like rain, wind, and temperature changes sculpts these structures, giving each mountain its unique shape and characteristics.

Answer: 1,3,4,2



- 1) Due to their volatility, cryptocurrencies can offer high returns, attracting numerous investors.
- 2) Cryptocurrencies, such as Bitcoin, have emerged as a new form of digital asset.
- 3) As a result, cryptocurrencies have sparked debates regarding their long-term viability and regulatory challenges.
- 4) However, this same volatility also presents significant risks.
- 5) Initially, they were created as an alternative to traditional currencies and to decentralize financial control.

Answer: 2,5,1,4,3

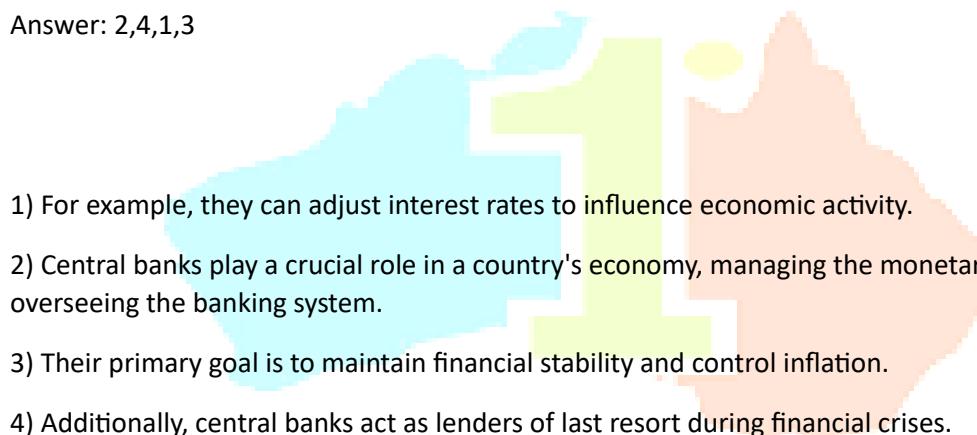
- 1) Therefore, maintaining a balanced and well-regulated credit system is crucial for economic health.
- 2) The credit system allows individuals and businesses to borrow money, facilitating purchases and investments.
- 3) In this system, creditworthiness, determined by past financial behavior and current financial status, influences the ability to borrow and the terms of loans.

4) While credit can stimulate economic growth, excessive borrowing can lead to financial crises.

Answer: 2,3,4,1

- 1) For instance, a rising market often indicates positive investor sentiment and economic growth.
- 2) The stock market is a complex system where shares of publicly traded companies are bought and sold.
- 3) Conversely, a declining market can signal economic downturns.
- 4) It acts as a barometer for the general health of an economy.

Answer: 2,4,1,3



- 1) For example, they can adjust interest rates to influence economic activity.
- 2) Central banks play a crucial role in a country's economy, managing the monetary policy and overseeing the banking system.
- 3) Their primary goal is to maintain financial stability and control inflation.
- 4) Additionally, central banks act as lenders of last resort during financial crises.

Answer: 2,3,1,4

ONE AUSTRALIA

- 1) They provide a safety net in case of emergencies and unexpected expenses.
- 2) Additionally, savings can be used for future investments, such as buying a home or retirement planning.
- 3) For example, a substantial savings account can help individuals avoid debt during medical emergencies or job loss.
- 4) Personal savings are essential for financial security and planning.

Answer: 4,1,3,2

- 1) Consequently, the war led to significant political changes and the redrawing of national borders.
- 2) Even today, World War I is remembered as a tragic event that ushered in a century of profound geopolitical changes.

- 3) Triggered by the assassination of Archduke Franz Ferdinand, it involved most world powers.
- 4) The First World War, from 1914 to 1918, was a global conflict that reshaped the world's political landscape.

Answer: 4,3,1,2

- 1) Sparked by social and economic inequality, it led to the overthrow of the monarchy and the rise of democracy.
- 2) The French Revolution, beginning in 1789, dramatically transformed France and influenced global politics.
- 3) Consequently, this event inspired numerous other revolutions and political changes worldwide.
- 4) Hence, the French Revolution is seen as a significant event that spread the ideals of liberty, equality, and fraternity.

Answer: 2,1,3,4

- 1) Initiated in 1095, they aimed to recapture the Holy Land from Muslim control.
- 2) Despite initial successes, the Crusades ultimately failed to achieve their primary objectives.
- 3) The Crusades were a series of religious wars sanctioned by the Latin Church in the medieval period, primarily against Muslim territories in the Eastern Mediterranean.
- 4) However, the Crusades still played a significant role in shaping the religious and cultural landscape of the medieval world.

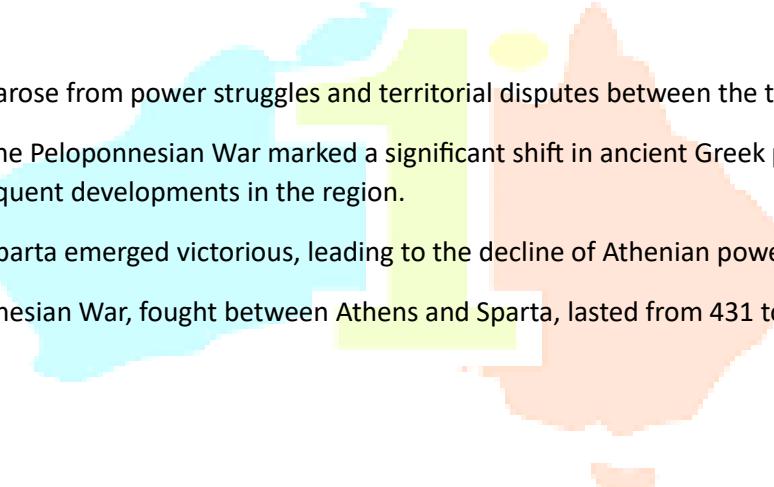
Answer: 3,1,2,4

- 1) Through persistent activism and campaigning, suffragettes challenged societal norms.
- 2) Hence, this movement was a crucial step towards gender equality and women's rights, impacting societies worldwide.
- 3) As a result, numerous countries gradually granted women the right to vote.
- 4) The Women's Suffrage Movement, spanning the 19th and 20th centuries, advocated for women's right to vote.

Answer: 4,1,3,2

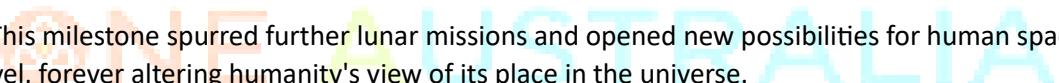
- 1) Thus, the Declaration of Independence remains a powerful testament to the ideals of democracy and self-governance.
- 2) Drafted by Thomas Jefferson, it declared the thirteen American colonies free from British rule.
- 3) Consequently, this document not only symbolized the pursuit of liberty but also ignited revolutionary fervor globally.
- 4) In 1776, the American Declaration of independence was adopted, marking the United States' birth as a sovereign nation.

Answer: 4,2,3,1



- 1) This conflict arose from power struggles and territorial disputes between the two city-states.
- 2) As a result, the Peloponnesian War marked a significant shift in ancient Greek politics and set the stage for subsequent developments in the region.
- 3) Ultimately, Sparta emerged victorious, leading to the decline of Athenian power and influence.
- 4) The Peloponnesian War, fought between Athens and Sparta, lasted from 431 to 404 BC.

Answer: 4,1,3,2



- 1) This milestone spurred further lunar missions and opened new possibilities for human space travel, forever altering humanity's view of its place in the universe.
- 2) Their mission collected valuable scientific data and samples from the Moon's surface.
- 3) In 1969, the Apollo 11 mission successfully landed the first humans on the Moon.
- 4) Following this historic event, astronauts Neil Armstrong and Buzz Aldrin explored the lunar surface, while Michael Collins orbited above in the command module.

Answer: 3,4,2,1

- 1) Throughout the war, there were periods of relative peace, followed by intense conflict.
- 2) It began over disputed claims to the French throne and control of territories in France.
- 3) Ultimately, the war ended with a French victory, solidifying France's national identity and changing the landscape of European politics.

4) The Hundred Years' War, a series of conflicts between England and France, lasted from 1337 to 1453.

Answer: 4,2,1,3

- 1) Artists like Leonardo da Vinci, Michelangelo, and Raphael transformed the field of art with innovations in perspective, composition, and human anatomy.
- 2) Additionally, their works reflected the humanist ideals of the time and marked a significant shift in artistic techniques and themes.
- 3) The Renaissance period, a rebirth of art and culture in Europe between the 14th and 17th centuries, witnessed revolutionary changes.
- 4) Consequently, Renaissance art remains a vital cultural heritage, captivating audiences with its beauty and historical significance.

Answer: 3,1,2,4

- 1) Therefore, the tea ceremony continues to be practiced and revered, reflecting the deep cultural heritage of Japan.
- 2) The Japanese tea ceremony, embodying principles of harmony, respect, purity, and tranquility, originated in the 9th century as a highly ritualized form of art.
- 3) It is also a spiritual experience that emphasizes mindfulness and aesthetics.
- 4) This ceremony is not just about drinking tea.

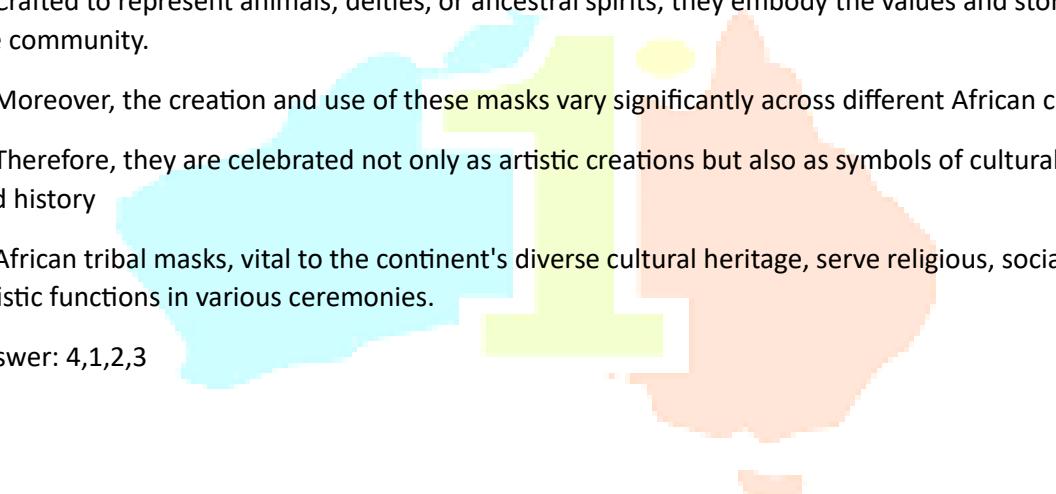
Answer: 2,4,3,1

- 1) Sponsored by the Spanish monarchs, he intended to find a westward sea passage to Asia.
- 2) Therefore, this event led to widespread European exploration and colonization of the Americas, profoundly changing the course of world history.
- 3) However, he unexpectedly landed in a New World, marking a pivotal moment in history.
- 4) In 1492, Christopher Columbus embarked on a voyage that led to the discovery of the Americas.

Answer: 4,1,3,2

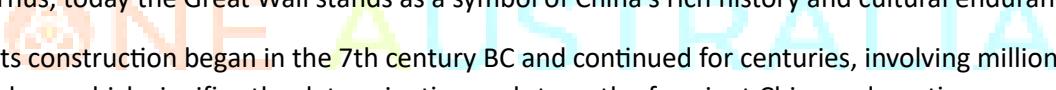
- 1) Because the barons pressured him, he agreed to a series of legal reforms limiting his power.
- 2) In 1215, King John of England signed the Magna Carta, a document that significantly influenced the course of history.
- 3) Consequently, this event laid the foundation for modern democracy and the rule of law.
- 4) Thus, the Magna Carta is often cited as a symbol of freedom against arbitrary rule, influencing legal systems around the world..

Answer: 2,1,3,4



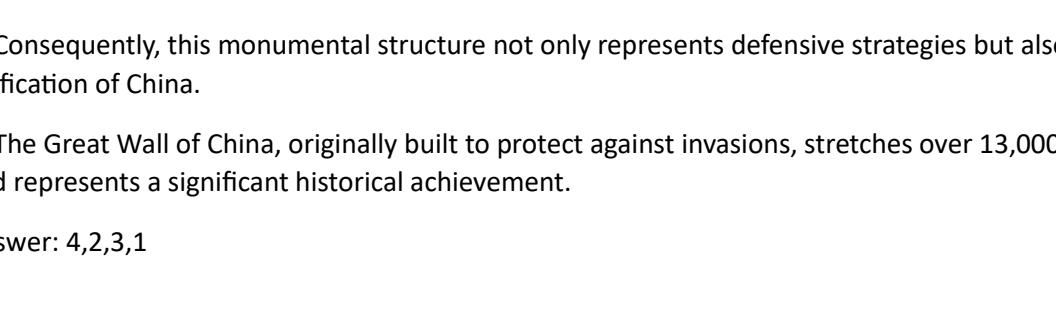
- 1) Crafted to represent animals, deities, or ancestral spirits, they embody the values and stories of the community.
- 2) Moreover, the creation and use of these masks vary significantly across different African cultures.
- 3) Therefore, they are celebrated not only as artistic creations but also as symbols of cultural identity and history
- 4) African tribal masks, vital to the continent's diverse cultural heritage, serve religious, social, and artistic functions in various ceremonies.

Answer: 4,1,2,3



- 1) Thus, today the Great Wall stands as a symbol of China's rich history and cultural endurance.
- 2) Its construction began in the 7th century BC and continued for centuries, involving millions of workers, which signifies the determination and strength of ancient Chinese dynasties.
- 3) Consequently, this monumental structure not only represents defensive strategies but also the unification of China.
- 4) The Great Wall of China, originally built to protect against invasions, stretches over 13,000 miles and represents a significant historical achievement.

Answer: 4,2,3,1



- 1) Native American totem poles are a significant part of indigenous cultures, especially among tribes in the Pacific Northwest, and are intricately carved wooden poles depicting various animals and ancestral figures.
- 2) Thus, totem poles remain a respected and preserved aspect of cultural heritage, symbolizing identity and history.

3) Each totem pole tells a story or represents a family's lineage and social status, created from large trees.

4) Additionally, these poles showcase the artistic skills and spiritual beliefs of Native American communities.

Answer: 1,3,4,2

1) Thus, protecting biodiversity is crucial for maintaining ecological balance and the sustainability of life on Earth.

2) However, human activities have been causing a significant loss of biodiversity.

3) 'Biodiversity refers to the variety of life forms in a particular ecosystem or the planet as a whole.

4) This diversity contributes to the functionality of ecosystems, providing essential services like pollination and

nutrient cycling.

Answer: 3,4,2,1

1) Despite its chaotic and violent nature, the French Revolution played a crucial role in shaping modern nations by promoting ideas of liberty and democracy.

2) It arose from economic distress and political discontent with the monarchy.

3) The revolution led to the overthrow of the Bourbon monarchy, the rise of Napoleon, and the establishment of the French Republic.

4) The French Revolution, beginning in 1789, dramatically transformed France and Europe.

Answer: 4,2,3,1

1) Consequently, conservation efforts must consider the importance of communication spaces for elephants.

2) Although these communication methods are well-adapted for long-range interaction, human activities like deforestation are disrupting their habitats.

3) African elephants are known for their advanced communication skills.

4) Intriguingly, they also communicate through seismic signals, detecting vibrations through their feet.

5) They use a range of vocalizations and body movements to communicate.

Answer: 3,5,4,2,1

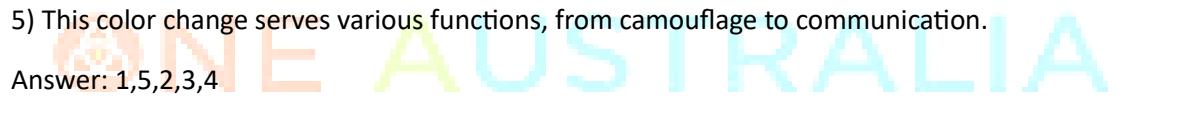
- 1) While these adaptations are advantageous for night hunting, habitat loss and human disturbances are challenging their survival.
- 2) Their silent flight is due to specialized feather structures, allowing them to approach prey unnoticed.
- 3) Only by mitigating human disturbances and preserving the ecosystems where owls thrive can we ensure the continued survival of these remarkable nocturnal hunters.
- 4) Owls are well-adapted for nocturnal life.

Answer: 4,2,1,3



- 1) Chameleons are famous for their ability to change color, a form of mimicry.
- 2) Contrary to popular belief, their color change is not only for blending with the environment but also reflects their mood and health.
- 3) However, habitat loss is a major threat to chameleons.
- 4) Without intervention, the loss of habitat could lead to a decline in chameleon populations, thereby disrupting the ecological balance in their environments.
- 5) This color change serves various functions, from camouflage to communication.

Answer: 1,5,2,3,4



- 1) Even today, the fall of the Berlin Wall remains a symbol of liberation and the triumph of democratic ideals.
- 2) In 1989, a series of political changes and public protests led to the fall of the wall.
- 3) For decades, it was a physical representation of the 'Iron Curtain' that separated communist and capitalist Europe.
- 4) The Berlin Wall, constructed in 1961, symbolized the division between East and West Germany.
- 5) This event was pivotal in ending the Cold War and reunifying Germany.

Answer: 4,3,2,5,1

- 1) Their ability to detect electrical impulses helps them locate prey even in murky waters.
- 2) Great white sharks are apex predators, known for their efficient hunting strategies.
- 3) Nevertheless, overfishing and habitat destruction are threatening their populations.
- 4) These human activities disrupt the delicate balance of marine ecosystems, posing a risk not only to great white sharks but also to the overall health of oceanic food chains.

Answer: 2,1,3,4

- 1) Today, he is celebrated as a pioneer of electrical engineering and his contributions have far-reaching impacts on modern technology.
- 2) Despite his numerous inventions, Tesla faced financial difficulties and recognition eluded him for many years.
- 3) His development of alternating current (AC) electrical systems formed the basis of modern electrical power distribution.
- 4) Nikola Tesla, born in present-day Croatia, was an inventor and engineer known for his work with electricity.

Answer: 4,3,2,1

- 1) Specifically, her influence extends beyond the art world, inspiring individuals to embrace their challenges and channel them into creative expression.
- 2) As such, Frida Kahlo's work has become a powerful symbol of personal expression and overcoming adversity.
- 3) Frida Kahlo, a Mexican painter, is known for her unique style and self-portraits that express her life and physical struggles.
- 4) Despite enduring severe injury and chronic pain, her artwork displayed resilience and strength.

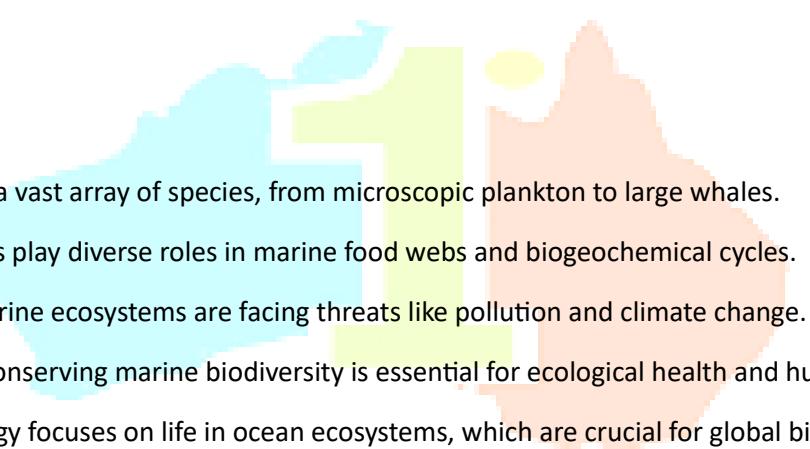
Answer: 3,4,2,1

- 1) The colony comprises a single queen, many workers, and drones.
- 2) While the queen's primary role is to lay eggs, workers perform various tasks like foraging and caring for larvae.
- 3) Interestingly, this division of labor is not static but changes as bees age.
- 4) Honeybees live in well-organized colonies, each with a distinct social structure.

Answer: 4,1,2,3

- 1) After escaping slavery, she risked her life to help others gain their freedom.
- 2) By doing this, her bravery and strategic skills led to the liberation of hundreds of slaves.
- 3) As a result, Harriet Tubman's legacy extends far beyond her lifetime, symbolizing courage and the relentless pursuit of freedom.
- 4) Harriet Tubman, born into slavery in Maryland, became a leading figure in the Underground Railroad.

Answer: 4,1,2,3



- 1) Oceans host a vast array of species, from microscopic plankton to large whales.
- 2) These species play diverse roles in marine food webs and biogeochemical cycles.
- 3) However, marine ecosystems are facing threats like pollution and climate change.
- 4) As a result, conserving marine biodiversity is essential for ecological health and human well-being.
- 5) Marine biology focuses on life in ocean ecosystems, which are crucial for global biodiversity.

Answer: 5,1,2,3,4

ONE AUSTRALIA

- 1) Thus, natural selection drives the evolutionary process, leading to the diversity of life forms observed today.
- 2) It suggests that individuals with traits better suited to their environment are more likely to survive and reproduce.
- 3) Natural selection, a key mechanism of evolution, was first proposed by Charles Darwin.
- 4) Over time, these advantageous traits become more common in the population.

Answer: 3,2,4,1

- 1) Their thick fur and layer of fat provide insulation against extreme cold.
- 2) Despite these adaptations, global warming is reducing sea ice, their primary habitat.

3) As a result, polar bears are facing challenges in hunting and survival, highlighting the impact of climate change on Arctic species.

4) Polar bears have evolved to thrive in the Arctic's harsh climate.

5) Additionally, their large paws are adapted for swimming in icy waters.

Answer: 4,1,5,2,3

1) Dominant and recessive genes determine how these traits are expressed in an organism.

2) Genetics is the study of genes and inheritance, crucial for understanding biological traits.

3) These biological traits are passed from parents to offspring through genes, which are segments of DNA.

4) However, environmental factors can also influence genetic expression.

Answer: 2,3,1,4

1) Applying these principles can lead to more effective personal and professional development strategies.

2) It is driven by a combination of biological, emotional, social, and cognitive forces.

3) Motivation is a crucial aspect of human psychology, influencing behavior and goal attainment.

4) Motivational theories, like Maslow's hierarchy of needs, provide insight into human behavior.

Answer: 3,2,4,1

1) His philosophy of nonviolent resistance inspired millions.

2) Mahatma Gandhi, born in 1869 in India, became the leader of the Indian independence movement against British rule.

3) Gandhi's commitment to nonviolence and his belief in simple living made him a global symbol of peace.

4) His efforts led to India's independence in 1947, though he was assassinated shortly after.

5) Even now, Gandhi's teachings still continue to influence civil rights movements worldwide.

Answer: 2,1,3,4,5



R FILL IN THE BLANKS

ONE AUSTRALIA

The way we design our cities needs a serious rethink. After thousands of years of progress in urban development, we (Answer: plateaued) some 60 years ago. Cities are not safer, healthier, more efficient, or more (Answer: equitable). They are getting worse on these measures. The statistics on chronic disease, rising road tolls and congestion in our urban environments paint a (Answer: bleak) future. The clues to why lie in how we think about and design our cities.

Choices:

broad, equitable, plateaued, recovered, bleak, retarded

The tomato is probably the most widely grown (Answer: vegetable) by the home gardener because of its (Answer: food) value, many uses, and relative ease of (Answer: culture). Originating in Central and South America, the tomato was domesticated in Mexico. There are many related (Answer: wild) species in South America. "Tomati" was the name (Answer: used) by Native Americans.

Choices:

fruit, used, wild, stuff, culture, cooking, food, took, vegetable

One (Answer: distinguishing) feature of business is its economic character. In the world of business, we interact with each other not as family members, friends, or neighbors, but as buyers and sellers, employers and employees, and the like. Trading, for example, is often (Answer: accompanied) by hard bargaining, in which both sides conceal their full hand and perhaps (Answer: engage) in some bluffing. And a skilled salesperson is well - (Answer: versed) in the art of arousing a customer's attention (sometimes by a bit of puffery) to (Answer: clinch) the sale. Still, there is an "ethics of trading" that prohibits the use of false or deceptive claims and tricks such as "bait-and-switch" advertising.

Choices:

distinguishing, compliant, engage, distribute, versed, extinct, gauge, informed, accompanied, clinch

Coastal fish farms seem to do less harm to nearby plants and animals than previously believed, a new study (Answer: reveals). And marine ecosystems can recover from this damage (Answer: surprisingly) fast. But the analysis of a single trout farm in a Faroe Islands fjord over nearly a year also shows that these facilities need to be (Answer: placed) carefully, and that there's a limit to how many can (Answer: operate) in a particular area before its biodiversity suffers lasting harm. In coastal farms, fish live in large cages hanging from pontoons on the surface. Fish feces and uneaten food sink to the seabed, affecting its ecosystem. Badly-managed farms can also have serious (Answer: effects) on the surrounding water column.

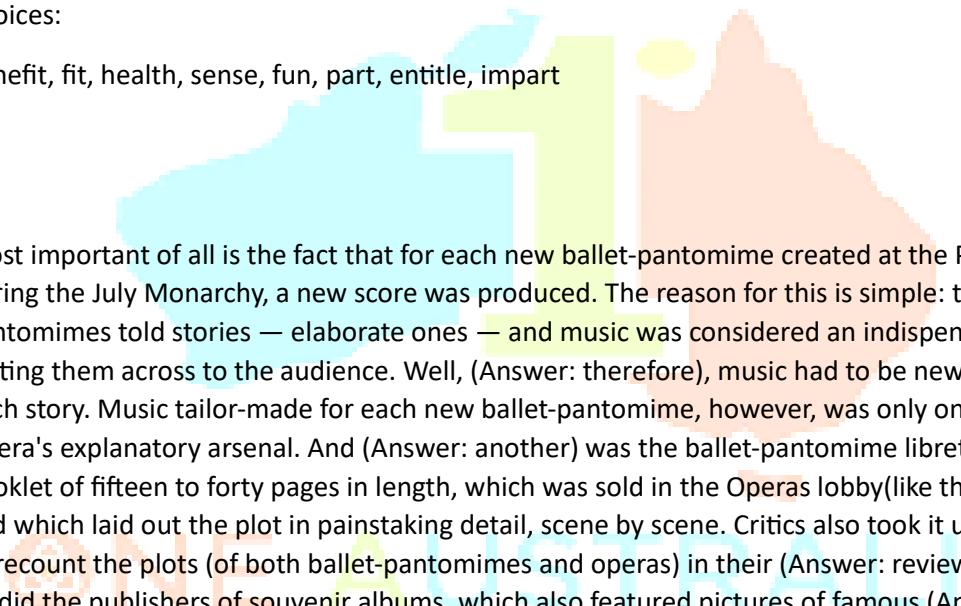
Choices:

nearly, operate, reveals, emphasized, symbols, surprisingly, counts, placed, effects, display

Whether you want to exercise and stay (Answer: fit), train professionally with like-minded people, or indulge your competitive streak, Trinity Sport and Fitness has it covered. We've got a dedicated support development team on campus to support every student taking part in sports. You might want to participate in sports competitions volunteer with a local sports class or simply play for (Answer: fun) with our social sport program. Trinity fitness members of our public-facing sports facility will also (Answer: entitle) you to discounts when you are booking a sports facility and fitness class. You will also get an opportunity to (Answer: benefit) from tailored personal training, free activities events, and lots more.

Choices:

benefit, fit, health, sense, fun, part, entitle, impart



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. Well, (Answer: therefore), 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. And (Answer: another) 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 (Answer: reviews) of premieres. So did the publishers of souvenir albums, which also featured pictures of famous (Answer: performers) and of scenes from favorite ballet-pantomimes and operas.

Choices:

therefore, participants, revisions, thus, another, either, reviews, performers

With about one and a half billion non-native speakers, English has become the world's own language. Such (Answer: dominance) has its downside, of course. There are now about 6,800 languages left in the world, compared with perhaps (Answer: twice) that number back at the dawn of agriculture. Thanks in (Answer: part) to the rise of über-languages, most importantly English, the remaining languages are now dying at the (Answer: rate) 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).

Choices:

more, reign, relation, twice, part, rate, dominance, margin

In *The Origin of Species*, Darwin provided abundant evidence that life on Earth has evolved over time, and he proposed natural selection as the primary mechanism for that change. He observed that individuals (Answer: differ) in their inherited traits and that selection acts on such differences, leading to (Answer: evolutionary) change. Although Darwin realized that variation in heritable traits is a prerequisite for (Answer: evolution), he did not know precisely how organisms pass heritable traits to their offspring. Just a few years after Darwin published *The Origin of Species*, Gregor Mendel wrote a groundbreaking paper on inheritance in pea plants. In that paper, Mendel proposed a model of inheritance in which organisms transmit discrete heritable units (now called genes) to their offspring. Although Darwin did not know about genes, Mendel's paper set the stage (Answer: for) understanding the genetic differences on which evolution is based.

Choices:

form, growth, rough, differ, evolutionary, for, by, evolution

Chemistry is a logical science. You can master the (Answer: essential) concepts in any (Answer: order), but it's probably best to start from the (Answer: top) and work your way down, since many concepts (Answer: build) on understanding units, conversion, and how atoms and molecules interact.

Choices:

order, margin, top, essential, direction, roundabout, set, dwell, build

ONE AUSTRALIA

The Classic Era of Mayan (Answer: civilization) came to an end around 900 AD. Why this happened is unclear; the cities were probably over-farming the land, so that a (Answer: period) of drought led to famine. Recent geological (Answer: research) supports this, as there appears to have been a 200-year drought around this time.

Choices:

research, time, argument, civilization, period, urbanization

Performance appraisals have traditionally been considered the best way to (Answer: evaluate) an employee's performance, but increasingly organizations are finding them of little (Answer: value). Employees find them stressful and unhelpful. Importantly, they also take up a lot of time. When Deloitte analyzed their own (Answer: process), they found managers and employees spent around 2 million hours a year on performance reviews. A growing number of companies have decided to (Answer: abolish) performance reviews altogether, instead introducing more regular catch-ups.

Choices:

monopolize, rating, value, presence, evaluate, abolish, process

After centuries of inequality in UK higher education benefiting men, there has been a (Answer: reversal) over the past three decades. A lower proportion of entrants to UK higher education institutions are male than ever before and they (Answer: make) up less than one-half of the total. Other developed countries have (Answer: undergone) a similar shift. Male (Answer: underachievement) is not seen only in the figures for entry but also in non-continuation (drop-out) rates and degree performance statistics.

Choices:

underachievement, phased, reversal, make, undergone, coincidence, deceit, recovery, hitch

Most chapters have a mixed exercise after the (Answer: main) work of the chapter has been completed. This will help you (Answer: revise) what you have done, either when you have finished the chapter or at a later date. All chapters (Answer: end) with some mathematical puzzles and practical investigational work. For this work you are encouraged to (Answer: share) your ideas with others.

Choices:

end, main, revise, share, teem, downsize, mingle, bare



Samuel Johnson's Dictionary of the English Language is one of the most famous dictionaries in (Answer: history). First published in 1755, the dictionary took just over eight years to compile, (Answer: required) six helpers and listed 40,000 words. Each word was defined in (Answer: detail), the definitions illustrated with quotations (Answer: covering) every branch of learning. It was a huge scholarly (Answer: achievement), a more extensive and complex dictionary than any of its predecessors – the comparable French Dictionnaire had taken 55 years to compile and required the dedication of 40 scholars.

Choices:

required, covering, achievement, sustainability, leading, repulsed, detail, history, declaration

Management accounting is concerned with providing information and (Answer: analysis) to managers to help them plan, evaluate and control activities, in order to achieve an organization's

(Answer: objectives). Whereas financial accounting is concerned with reporting on the past financial performance of an organization, management accounting is essentially concerned with improving its future performance. In order to understand the (Answer: concepts) and principles of management accounting it is necessary first to have some (Answer: appreciation) of what managers do! This, in turn, requires an understanding of the organizations in which managers work – and of the external environment in which these organizations exist and operate.

Choices:

fame, category, appreciation, analysis, comparison, concepts, objectives

In December 2020, the first vaccines (Answer: based) on a type of genetic material known as mRNA rolled out to fight COVID-19. That was less than 12 months after the lethal disease came to the world's (Answer: notice). Within a year, those new shots appeared to have saved nearly 20 million lives. Now, two biochemists who laid the (Answer: groundwork) for mRNA vaccines have been (Answer: awarded) the 2023 Nobel Prize in medicine or physiology.

Choices:

awarded, installed, groundwork, equipment, measure, risen, notice, based

Providing for children in their early years must be (Answer: treated) as a public good, not a private test of a family's (Answer: financial) strength. Parents around the world should no longer be reduced to hoping for the best, crossing their fingers that the (Answer: inadequate) care they are often forced to use isn't a risk to their child's safety or their future (Answer: prospects) in life.

Choices:

industrialized, criticized, engagement, treated, inadequate, financial, prospects

Numerous studies over the last 15 years have shown dogs and cats can (Answer: lead) healthy lives on nutritionally sound plant-based diets provided they are made to (Answer: contain) essential nutrients normally found in meat. Researchers have now begun to (Answer: quantify) the environmental impact of pet diets and how that could change if they went vegan.

Choices:

synchronize, lead, quantify, contain, enrich, order

Orcas are known for being (Answer: picky) eaters. They'll normally hunt fish, dolphins, seals, sea lions, whales, and even sharks. Whatever they grab, they normally (Answer: tear) apart their food, devouring the most nutrient-dense parts. That's why scientists in Russia were (Answer: perplexed) when they dissected a beached orca in 2020 and found not one, not two, but seven fully (Answer: intact) sea otters in her gastrointestinal tract. She had probably (Answer: swallowed) them whole.

Choices:

tear, delicious, deserved, attack, intact, picky, observed, perplexed, swallowed

Whether you want to exercise and stay (Answer: fit), train professionally with like-minded people, or indulge your competitive streak, Trinity Sport and Fitness (Answer: has) it covered. We've got a dedicated support development team on campus to support every student taking part in sports. You might want to participate in sports competitions, volunteer with a local sports class or simply play for (Answer: fun) with our social sport program. Trinity fitness members of our public-facing sports facility will also (Answer: entitle) you to discounts when you are booking a sports facility and fitness class. You will also get an opportunity to (Answer: benefit) from tailored personal training, free activities events, and lots more.

Choices:

benefit, fit, health, sense, fun, part, entitle, impart, has, makes

Scientists use research articles to (Answer: communicate) their research findings and scientific claims. These articles are not just factual (Answer: reports) of experimental work; the authors also try to convince the reader that their (Answer: argument) is correct. It is now easier than (Answer: ever) to read the original research behind science stories in the media, as more and more articles are being made freely available through open-access (Answer: publishing).

Choices:

admit, often, hypotheses, communicate, reports, argument, publishing, ever, phenomenon

Finding (Answer: sustainable) methods to control pest insects that affect crop yield is a (Answer: pressing), worldwide concern for agriculture. In recent decades, there has been interest in (Answer: developing) less toxic chemical pesticides, and more sparse regimens for application of these pesticides to (Answer: avoid) also killing beneficial insects during pesticide applications.

Choices:

developing, sustainable, tricky, exposing, avoid, pressing, identify

The philosophy of mind is a certain area of (Answer: problems) commonly recognized by English-speaking philosophers. But it is not an accident that this (Answer: expression) is hard to translate into other languages. This is only partly due to the fact that the English word "mind" has no exact (Answer: equivalent) in the other main European languages. It is also a reflection of the fact that the classification in which this label figures is itself based on certain profound philosophical assumptions often unexpressed.

Choices:

expression, problems, situations, form, equivalent, meaning, emphasis

David Lynch is professor and head of education at Charles Darwin University. And prior to this he was sub dean in the Faculty of Education and Creative Arts at Central Queensland University and foundation head of the University's Noosa (Answer: campus). David's career in education (Answer: began) as a primary school teacher in Queensland in the early 1980's, (Answer: progressing) to four principal positions before (Answer: entering) higher education. David's research interests predominate in teacher education with particular interest in building teacher capability to meet a changed world.

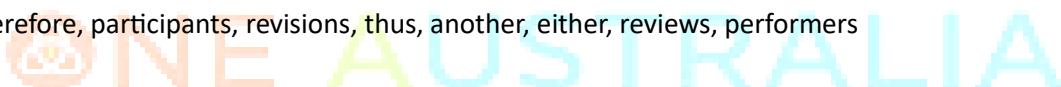
Choices:

acted, beginning, campus, department, entering, began, progressing

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, (Answer: therefore), 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. And (Answer: another) 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 (Answer: reviews) of premieres. So did the publishers of souvenir albums, which also featured pictures of famous (Answer: performers) and of scenes from favorite ballet-pantomimes and operas.

Choices:

therefore, participants, revisions, thus, another, either, reviews, performers







SUMMARIZE SPOKEN TEXT

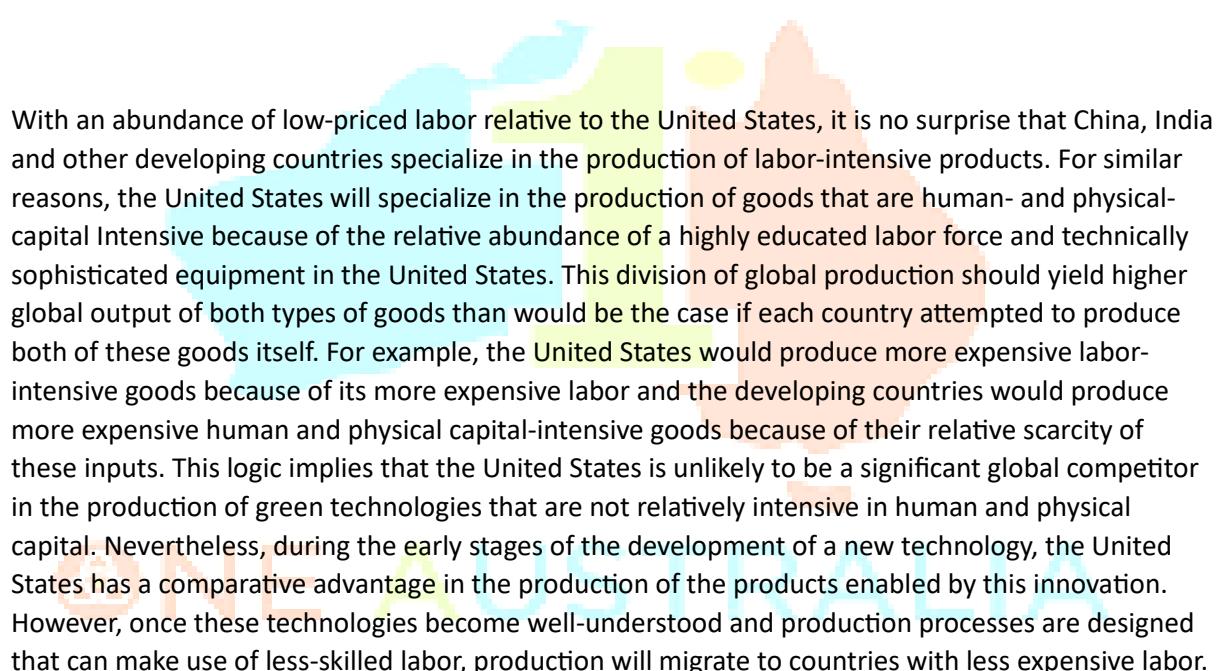
ONE AUSTRALIA

I want today to talk about the industrial revolution from a variety of aspects. put everything on the board, I put on our website, so don't worry about copying it down. And it's all pretty, pretty obvious doing the industrial revolution across this century is no easy task. But we will do it and do the reading. Let me just say that to the way people look at what used to be called the industrial revolution and I guess some people still call it that has changed dramatically 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 mechanism machines in the used primarily in the textile industry, but also in mining that eliminated blocks to assembly line production. And then everybody was crowded into factories and the new brave world opened up. In fact, one of the most interesting books and so great classics is still in print was written by an economic historian at Harvard, who's still around called David Landis, a good book called the unbound Prometheus, which was basically that and some of the inventions that I'll briefly describe in your reading, the spinning Jenny, et cetera. I refer to that. And then that kind of analysis led one to concentrate on England where the industrial revolution began and to view and to view industrialization as being a situation of so winners and losers are not going as fast. In your reading give you some pretty obvious examples of reasons for the industrial revolution first coming to England location of resources, particularly coal a country, which is nowhere that's 75% more than 75 miles away from the sea, precocious canals and roads, banking system, fluid fluidity between classes and very large, an increasingly larger proletariat, agricultural revolution, etcetera. And with that kind of analysis, those places that didn't industrial as fast, industrializes fast, for example, France one thought that they were quote unquote, retarded a word that was used, unfortunately, at that time. And then one tried to see why not. 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 and the more and 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. Thus we spend more time looking at 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.

ONE AUSTRALIA

In *The Origin of Species*, Darwin provided abundant evidence that life on Earth has evolved over time, and he proposed natural selection as the primary mechanism for that change. He observed that individuals differ in their inherited traits and that selection acts on such differences, leading to evolutionary change. Although Darwin realized that variation in heritable traits is a prerequisite for evolution, he did not know precisely how organisms pass heritable traits to their offspring. Just a few years after Darwin published *The Origin of Species*, Gregor Mendel wrote a groundbreaking paper on inheritance in pea plants. In that paper, Mendel proposed a model of inheritance in which organisms transmit discrete heritable units (now called genes) to their offspring. Although Darwin did not know about genes, Mendel's paper set the stage for understanding the genetic differences on which evolution is based.

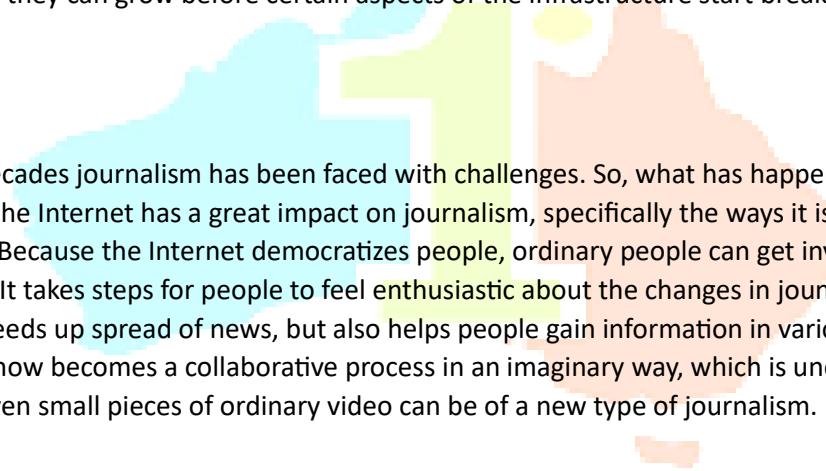
David Olivia Garcia is a co-host of New Mexico in Focus and is also the managing editor for the New Mexico Independent, which is an online news website. he says that the internet has some great benefits for journalism. The Internet is this new, amazing medium. Not so new: it's been around quite some time now. But it's maturing as, among other things, a place for journalism. In a sense, the Internet allows you to tell stories better than in a newspaper or on television. For this reason, you can do it all online: you can have the written word, you can have still photographs, you can have video. You can link and kind of connect to the other journalism that has been done on a given topic. So it's not like you're in a vacuum. The Internet has had a negative impact on these papers. However, John Fleck, who is a columnist for the Albuquerque Journal and also has his own blog, says that he doesn't think that's entirely the case. it really makes me more efficient as a journalist in terms of information gathering, confirmation, helping me get the background necessary to write a story. So it's really good for that.



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.

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.

I hereby not even to elaborate too much why I think it is that population matters in the world. These are the kind of topics which are normally cited when thinking about the population, its challenges, its problems, its opportunities, its own problems. After all, pressure on resource is a very obvious point. When world population has reached now 7 billion and is increasing by 7 to 8 million people per year, a diminishing number of course. But nonetheless it's still quite a challenge, particularly when global population is almost certain to add another 3 billion to that 6 billion with all kinds of questions as to the adequacy of resources, water, particularly in global climate change, but also food and other aspects of resources. These are all problems of security because this growth will not be equally distributed between different parts of the world. Some parts of the world will grow. Other parts of the world will shrink. The balance of power, therefore, will correspondingly change for demographic reasons, as we will see. Urban growth is remarkable. We already have megacities of 20 million people. These are going to grow even further in due course. One wonders just how far they can grow before certain aspects of the infrastructure start breaking down.



In recent decades journalism has been faced with challenges. So, what has happened to journalism? The rise of the Internet has a great impact on journalism, specifically the ways it is produced and consumed. Because the Internet democratizes people, ordinary people can get involved in journalism. It takes steps for people to feel enthusiastic about the changes in journalism. The internet not only speeds up spread of news, but also helps people gain information in various ways. Thus, journalism now becomes a collaborative process in an imaginary way, which is unexpected. For example, even small pieces of ordinary video can be of a new type of journalism.



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.

Around the world, renewable energy use is on the rise and these alternative energy sources could hold the key to combating climate change. What is renewable energy? Renewable energy is generated from sources that naturally replenish themselves and never run out. The most common sources are solar, wind, hydro, geothermal and biomass. Over 80 percent of the total energy

consumed by humans is derived from fossil fuels. However, renewables are the fastest growing source of energy in the world. Renewable energy has many benefits. First, it can combat climate change because it creates no direct greenhouse gas emissions. The only emissions that they produce are indirect, meaning those that result from manufacturing parts, installation, operation and maintenance. But even those are minimal.

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.

The internet, the most powerful tool in terms of engineering made by humans, has the most complicated structure. What we call the Internet is made up of a lot of things, wires traversing the ocean, satellites and cell phone towers, massive data centers sending packets of information all over and devices. The internet can be connected via a modem, or an ADSL switch center, to a local landline telephone exchange network. It can connect us from Sydney to Melbourne and then to the U.S. However, it takes energy for the transmission system to transmit information. For example, the longer email you write, the more energy is consumed. Meanwhile, there are more than 30 billion things connected to the Internet, like cell phones, laptops, credit card readers, smart TV, and so on, and each of them requires electricity. In total, Internet-connected devices probably use around five percent of the world's electricity. And most of the electricity comes from burning fossil fuels, which release greenhouse gases into the atmosphere.

My lab works on the applications of synthetic biology, so we're very interested in doing useful things with biological systems. Up to now, life has evolved, and now we actually have the ability and the power to engineer it, to design it. And so I'm curious about what the natural world is going to look like in the future. So synthetic biology is sort of the next level of genetic engineering. So about 40 years ago, we being scientists and engineers, developed techniques to basically move pieces of DNA from one organism to another. And this was sort of done by physically cutting and pasting. Now we're moving beyond that where we can write DNA so we're no longer limited to the pieces. We can cut from one and put in another. We can chemically synthesize this DNA on a machine and put that into an organism. And now we can even create new organisms completely from scratch. So if you

imagine a cell that's programed to make a useful compound, say, material or drug, then what you have is basically a micro-scale manufacturing unit. it's basically a cellular factory. And the cool thing about cellular factory is that when you want more factories, you love that cell grow and divide. So in in the lab, if we have one bacteria, we put it in a flask The next day we come in. We have millions, if not billions of bacteria.

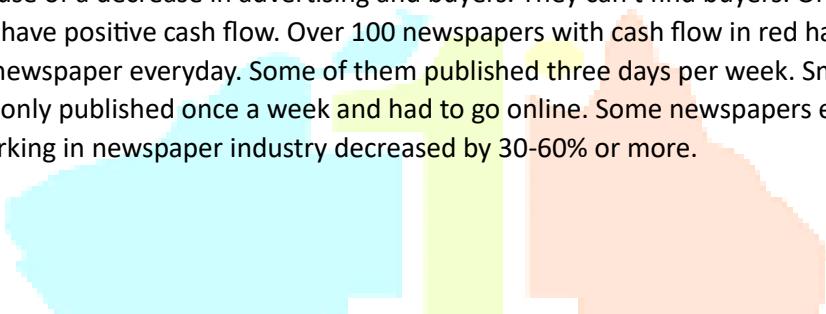
Humans are faced with many challenges, one of which is climate change. An experiment was conducted on the environment and climate in the 1930s when people first noticed climate change. Humans have been trying to change their lifestyles to deal with it, but the observation of climate change is difficult from area to area. A method is introduced to help understand the mechanism of the climate system. Researchers predict that temperatures will increase about two to 10 degrees Fahrenheit by the end of the century. What's less certain is what rising temperatures mean for the planet. Some climate models predict subtle changes. Others forecast rising sea levels, which could flood coastal areas around the world. Weather patterns could change, making hurricanes more frequent. Severe droughts could become more common in warm areas, and species unable to adapt to the changing conditions would face extinction, although much remains to be learned about global warming. Many organizations advocate cutting greenhouse gas emissions to reduce the impact of global warming. Consumers can help by saving energy around the house, switching to compact fluorescent light bulbs, and driving fewer miles in the car each week. These simple changes may help keep the earth cooler in the future.

We are from an organization called Nonhuman Rights Project, and we fight for legal rights of non-human 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 have a long history to research on hospital design and patient recovery. A long time ago, people began to study therapeutic environments. For example, in 1855, Florence Nightingale recognized that

color and form enhanced a patient's recovery. They found that fresh air and sunlight had positive impacts, and architecture also played as an important part. Views of the hospital's backyards can help patients rest well and sleep fast, and can also help relieve their stress and pain easily, because of the pleasant feelings caused by nature. Being Visited by friends or family members can help patients be better off sooner, as well as living alone in a single room. 90% of patients and nurses in hospitals agree that the well-designed hospital environment links to recovery rates.

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.



Transportation officials, advocates, companies and users around the world are talking about how automated vehicles will change transportation as we know it. Autonomous vehicles are split into six levels of automation as defined by the Society of Automotive Engineers. Zero, no automation. One, driver assistance. Two, partial automation. Three, conditional automation. Four, high automation. And five, full automation. Humans are responsible for monitoring the vehicle and performing most functions in levels one and two, while an automated driving system performs all functions and levels three, four and five. Vehicles at levels three and up are considered highly automated vehicles. As vehicles progress to higher levels of automation, less responsibility is put on the driver for monitoring the vehicle. Here's how an automated vehicle works. Several systems work in conjunction with each other to control an automated vehicle. Radar sensors dotted around the car monitor the position of vehicles nearby. Video cameras detect traffic lights, read road signs and keep track of other vehicles while also looking out for pedestrians and other obstacles.

I suppose you wouldn't expect perhaps to find a mathematician in a museum of historical objects, but actually, the objects that I've been drawn to in this museum have quite a lot of mathematical significance. These Neolithic stones, discovered in Scotland, dating back 5,000 years, are probably the first examples of humans exploring the concept of symmetry. And that's what I do as a practicing mathematician. I spend my life trying to understand what symmetries are possible, in nature and in mathematics and abstractly. And here I've got a connection, going back 5,000 years, to people who are already trying to understand - how can I arrange patches on the side of these stone balls in a symmetrical manner? One of the intriguing things about these stones is that we don't actually know what they're for. They might have been for divination - trying to predict the future. They might have been part of a game. They look very much like dice, but we don't really think there is any game

associated with them. Maybe they were just for chucking around, they're very nice in the hand when you hold them. Or maybe they were symbols of power in the clan. I suppose that's why I like them because we don't really know what they are.

This is a new memory-learning memory. It is a good thing for you to get enough sleep, and a bad thing for you if not. People need to sleep before learning, and people also need to sleep after learning. When you are asleep, the memory can consolidate all the information into your brain. From this point, it may only get worse. Not only will I tell you about the wonderfully good things that happen when you get sleep, but the alarmingly bad things that happen when you don't get enough both for your brain and your body. Let me start with the brain and the functions of learning and memory, because what we've discovered over the past 10 or so years is that you need sleep after learning to essentially hit the save button on those new memories so that you don't forget. But recently, we discovered that you also need sleep before learning and now to actually prepare your brain almost like a dry sponge, ready to initially soak up new information. And without sleep, the memory circuits of the brain essentially become waterlogged, as it were. And you can't absorb new memories.

Honeybees do a waggle dance to direct other bees to sources of nectar, but dancing bees like this one can be halted by a headbutt from another bee. Now, researchers have 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 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.

Social skills are vital in enabling an individual to have and maintain positive interactions with others. Many of these skills are crucial in making and sustaining friendships. Social interactions do not always run smoothly and an individual needs to be able to implement appropriate strategies, such as conflict resolution when difficulties in interactions arise. It is also important for individuals to have 'empathy' as it allows them to respond in an understanding and caring way to how others are feeling. Children are facing social difficulties with particular risks. Young people who do not have strong relationships with the adults in their family are even more at risk. In an experiment in a high school, which lasted for 8 to 12 weeks, the students were told to be a movie director and to choose their own story structure. The students worked with each other, which involved lots of different skills, and social interactivity. The movies they had made were actually cool. Then, the researchers tested the intervention effect, finding this can improve their self-regulation and they found this can improve their self-regulation and critical thinking skills.

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.

The United States is considered the biggest food-wasting country in the world. Consumers collectively throw away more than all the retailers together in the US. In total, private US households waste around 43% of all food. According to "Save the Food", a national public service campaign, this could translate into an annual financial loss of \$1,500 for a family of four. In fact, over 40 million tons (36 million tonnes) of food ends up in landfills every year, worth more than \$161 billion. 60% of food waste comes from general consumption. There are two main sources of food waste. The majority of food waste comes from supermarkets, especially in the used-by section. The other factor is what people purchase and how they eat, so purchasing all items is not a good idea. Avoiding food waste efficiently along the supply chain and in all our households can result in a win-win scenario. Halving food waste could help meet the demand for nutrition of our growing population, and equally minimize the negative environmental effects of agriculture.

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.

The ocean provides habitats for 98% of fish, the source of protein feeding 4.8 billion of people. But human activities and climate change have left corals bleached in some oceans. There are many species of fish that are endangered. The government set up a network, called MPA marine campaign, in which countries and organizations have been collaborating with each other to protect the environment for 32 years. A marine protected area (MPA) is a zone designated and managed to protect marine habitats and species for the good of the ocean, society, economy and culture. Within MPAs, human activities such as fishing, vessel traffic and tourism are regulated. MPAs can come in the form of a fully protected marine reserve, a moderately protected marine park or a no-take zone among others. But MPA is faced with lots of challenges, as some developing countries lack management and resources, and feel excluded.

Today, this course you are going to take is about what is engineering and how to work with a complicated system. You guys should know the answers, because all of you guys are from the engineering course. Especially, when you design, build, debug and develop something new, during these process, you are working with the complicated system. How to program complicated systems and how would you know it actually works before producing it. Sometimes, the inspirations are from your daily life, you probably need to consider your personal life experience. And from the common everyday life to the tiny things that you cannot see virtually, and the inspirations normally exist in the tiny levels. A complicated system such as your laptops running Microsoft systems. That means the system is not able to see, which means you guys have to virtualize it. Engineering is here to help virtualize by using systems. Nowadays, the complicated systems are relatively reliable, and you guys work upon these and need to deliver the new outcomes which are reliable as well. This is what we do now and we are good at. Engineering is to help virtualize by using systems. In order to develop and produce a reliable system, you need consider more on the risks, potentials, predictability and accuracy.



The stock market is where investors connect to buy and sell investments most commonly, stocks, which are shares of ownership in a public company. When you need groceries, you go to the supermarket. When you're ready to buy stocks or mutual funds, you'll usually buy them online through the stock market which anyone can access with a brokerage account or employee retirement plan. The term 'stock market' often refers to one of the major stock market indexes. However, there are some different uses of the stock market before and after. In the 18th century, manufacturing companies came into the market. Traditional companies used stocks to raise money, and input money into companies, while modern companies used stocks to output money. From 19th to 20th century, however, modern companies, such as Apple, Google and Microsoft are big enough to earn money, and use stocks differently. The stock market also inclined to put money into big companies.

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 by having high price and relatively 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 a 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 Royce and the Tiffanys and the Louis Vuittons of the world. And I think that tends to be how we see them.

Rejection happens to all of us, and it can be a disappointing experience. I will now give some advice for young researchers. Many things have changed today, which can be a troubling issue. The chance of getting paper published is becoming smaller and smaller. Although it never is easy to take, rejection is particularly hard at the beginning of your career. But rejections will lead to a better result and will be good for the career path. Use this feedback to improve your paper for submission to another journal as well as your next, more robust study of the topic. Usually several individuals with expertise in the topic have donated substantial time to provide detailed advice to advance your paper and future work. Also remember that publication does not mean funding. Investors will learn how to attract and engage young researchers at the same time.

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 programmed, 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.

Today, more and more people realize that the global economic and financial crisis also concerns common ethical values and standards. I am pretty concerned that the global economy has become unethical and unfair. Recent experiences have proved that the sustainability of the market economy is by no means guaranteed. Indeed, one cannot escape the fact that the emergence of global capitalism has brought with it an entirely new set of risks. The global economic and financial crisis concerns common ethical standards. For example, the trade between Europe and the United States

has been unfair, which needs to be further negotiated. These problems of the global economy should be on the agenda for the following years. Obviously, all ethical values and standards are culture-bound, but there are core values and standards that are universal. I strongly believe that in the long run, the global market economy will only be accepted in the different regions and nations if it is socially acceptable.

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 100-150 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 that 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.



L FILL IN THE BLANKS

ONE AUSTRALIA

Doctors have been concerned for a long time about people googling their symptoms. There's this term "Dr. Google," which is really frustrating to a lot of (Answer: physicians), because people come in and think that they know what they have without having the actual (Answer: expertise) or context, just by having looked up, "I have a headache. What does it mean?" GPT software is much better at actually being accurate in (Answer: determining) what patients have and asking sometimes follow-up questions that will help it further hone in on the correct diagnosis. Companies are starting to study this. And (Answer: preliminary) research suggests the AIs are surprisingly accurate. Studies have shown that they work better than online symptom checkers—which are websites that let you input your symptoms and spit out a diagnosis. They're also better than some (Answer: untrained) humans.

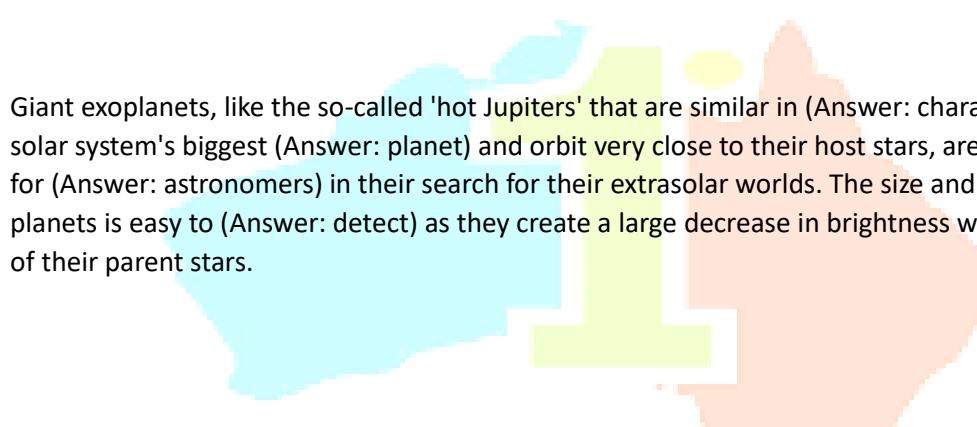
So, what is quantum mechanics? Even though it was discovered by (Answer: physicists), it's not a physical theory in the same sense as electro (Answer: magnetism) or general relativity. In the usual " (Answer: hierarchy) of sciences" -- with biology at the top, then chemistry, then physics, then maths -- quantum mechanics sits at a (Answer: level) between maths and physics that I don't know a good name for. Basically, quantum mechanics is the (Answer: operating) system that other physical theories run on as application software (with the (Answer: exception) of general relativity, which hasn't yet been successfully ported to this particular OS).

I think that's not going to be such a (Answer: viable) option for Cerberus, but that may be the way that they're gonna approach it. Private (Answer: equity) of course is supposed to have the advantage of taking management out of the spotlight of quarterly profits and industry (Answer: analysts) , and prying shareholder eyes, and that, (Answer: hypothetically) , gives them a chance to take slower, more (Answer: patient) routes to doing something to turn a company around. I would hope, and I have some, I guess, (Answer: optimism) that some of the Cerberus team will have some creativity and imagination.

Brad: As I was saying, Professor Mitchell ... Lisa: Oh, please call me Lisa. Brad: Yes, well Lisa, well I'm still trying to get my head around the choice of (Answer: electives) for the optional part of the third-year program. I was thinking of taking personal taxation law, and company tax, together with the extra five-credit-point course on goods and services and VAT type taxes, but I'm a bit (Answer: concerned) that I'm going to pigeonhole myself too early in the course. Lisa: Yeah, hmm. Brad: As you know there are going to be (Answer: interviews) for summer clerkships coming up and I really don't want to come across as too focused on certain areas that a lot of firms don't even do, you know, have a practice in. Lisa: Well, don't forget, um, only about 25% of the course at this stage is elective-based and you'll still have that core of subjects - crim, legal institutions, (Answer: evidence) , property law, general commercial and fed-con law, all of which would be of interest to a lot of firms. So if I were you, which I'm not, I'd really just go with what my interests are and enjoy the chance to undertake some work in an area that I'm (Answer: motivated) to pursue. Don't you think? There's an

awful lot of time in this profession where you'll be undertaking long, stressful hours on projects that don't really interest you as much.

Some years ago, Bjorn Lomborg, a young Danish statistician, published a book called The Skeptical Environmentalist. It became a (Answer: bestseller) and generated a lot of heat. Lomborg was attacked, abused and (Answer: accused) of all manner of things; not because he denied the fact of global warming - in fact he (Answer: affirmed) it - but because, on his analysis, the devil and, he says, a lot of (Answer: deviousness) was contained in the details presented concerning the size of the problem and what were the most (Answer: responsible) steps to take in response to global warming.



Giant exoplanets, like the so-called 'hot Jupiters' that are similar in (Answer: characteristics) to the solar system's biggest (Answer: planet) and orbit very close to their host stars, are excellent targets for (Answer: astronomers) in their search for their extrasolar worlds. The size and proximity of these planets is easy to (Answer: detect) as they create a large decrease in brightness when passing in front of their parent stars.

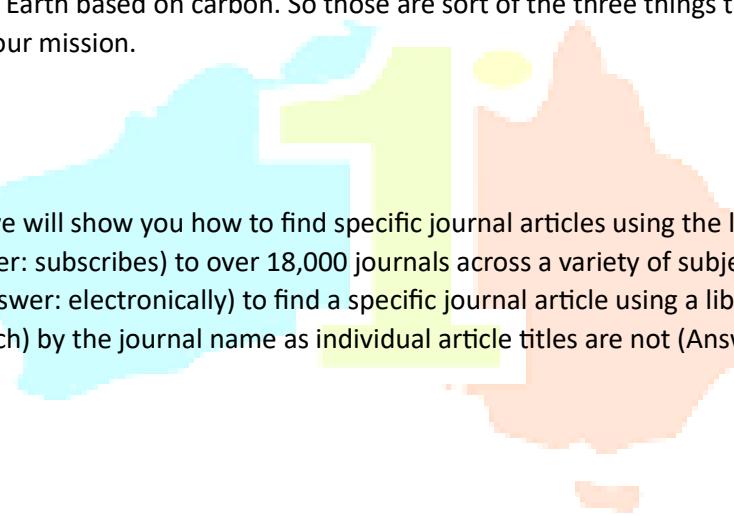
Two decades ago, Kashmiri houseboat-owners rubbed their hands every spring at the prospect of the annual influx of (Answer: tourists) . From May to October, the hyacinth-choked waters of Dal Lake saw flotillas of vividly painted Shikaras carrying Indian families, boho westerners, young travelers and wide-eyed Japanese. Carpet-sellers (Answer: honed) their skills, as did purveyors of anything remotely embroidered while the house boats (Answer: initiated) by the British Raj provided unusual accommodation. Any foreigners venturing there risked their (Answer: lives) , proved in 1995 when five young Europeans were kidnapped and murdered.

So between 4,000 and 3,000 BC the Mesopotamian Samarian cultures do not (Answer: practice) any kind of burial. And then, about 3,000, in the early Dynastic Period, these burials start to reappear, and they reappear with a certain amount of (Answer: conspicuous) consumption, and this is the context for the royal burials at Ur. OK, so, the royal (Answer: cemetery) consists of quite a number of pits, so these are the (Answer: excavation) workers who are coming down into the pits. So you get some sense of how really deep and how really difficult it was to construct these (Answer: chambers).

Green chemistry is a concept designed to develop (Answer: technologies) which allow chemistry to be practiced with minimal damage to the environment or in an environmentally (Answer: compatible) way. And it's meant to cover both chemical processes and chemical (Answer: products) .

The center, if you would, set up about seven or eight years ago, and the idea was to provide a hub of activities that covered (Answer: fundamental) research work, industrial collaboration, but also educational developments. So we work with schools and on public projects as well, and also networking. So we network out to well over 1000 people around the globe.

The thing that makes it difficult is because even if life had evolved on Mars, the chances of being preserved are very small. If we use Earth as a (Answer: reference) and our planet is teeming with life, yet it rarely preserves evidence of life of the fossil record. And the focus now is on exploring for (Answer: habitable) environments. If you're looking for water, a (Answer: source) of energy, either solar energy or thermal energy or chemical energy, and then (Answer: organic) carbon, assuming life as we know it on Earth based on carbon. So those are sort of the three things that we're looking for in the course of our mission.



In this tutorial, we will show you how to find specific journal articles using the library catalog. The university (Answer: subscribes) to over 18,000 journals across a variety of subjects, most of which are available (Answer: electronically) to find a specific journal article using a library catalog. We need to (Answer: search) by the journal name as individual article titles are not (Answer: listed) in the catalog.

Belief is the human capacity to imagine, to be creative, to hope and dream, to infuse the world with meanings, and to cast our aspirations far and wide. Limited neither by personal experience nor (Answer: material) reality. Believing is a (Answer: commitment) , an investment, a devotion to possibilities. Beliefs (Answer: permeate) neurobiologies, bodies and ecologies acting as dynamic agents in evolutionary processes. The human capacity for belief, the (Answer: specifics) of belief, and I, and our diverse belief systems shape, structure and alter our daily lives, our societies, and the world around us.

Also, malaria is something that is a very complex disease with this complex life cycle. That means that if you're going to (Answer: eliminate) it, you have to be able to target cute parasites and humans. You have to be able to target parasites in the mosquitoes, that mosquito (Answer: population) . And so that requires a lot of resources. It requires really good planning and a health system across all these different (Answer: levels) . And so I think the political capital that you need for that, the educational (Answer: infrastructure) you need for that, the economic resources you need for that are quite a (Answer: challenge).

For a long time now, it's been a widely accepted and (Answer: rarely) questioned belief that a strong corporate culture goes hand in hand with success. However, a recent study has (Answer: cast) some doubt on this principle. After all, the (Answer: authors) of the report argue for culture. A company's build-up may be strong, but wrong. There is little point in every (Answer: employee) marching to the same tune if they are all marching in the wrong direction.

We are trying to understand the locomotion of one of our closest living (Answer: relatives) , which is the orangutan, and also the locomotion of all of the apes and the common ancestor of humans and the other apes. And in that area, we have had a big problem (Answer: traditionally) , and that we know a lot about how they move around the forest. I've been out to the forest and spent a year recording the (Answer: different) types of locomotion they use, but we have no idea about the energetic cost of how they move around the forest and the (Answer: solutions) that they find to problems of moving around the canopy. And what we're doing here is using the parkour athletes as an analogy for a large bodied ape moving around a complex (Answer: environment) and getting them to move around in the course that we've made that they've never seen before. And we're going to record their energetic expenditure while they're doing it.

I'm going to argue that the (Answer: tremendous) increases in productivity that we (Answer: associate) with the industrial revolution originate not so much from changes in science or (Answer: technology) or new inventions, where England was far from (Answer: unique) as from changes in attitudes, attitudes towards morality, towards what constituted the good. Attitudes towards property, which became in England individuals long before it did on the (Answer: continent) . Attitudes toward the proper role of government. And (Answer: together) , these attitudes constitute much of what the Luddites were protesting against.

Well, the banana is the first (Answer: cultivated) fruit. It's one of the food items that literally brought people out of the jungle, out of their hunter-gatherer lifestyles and was there at the (Answer: dawn) of agriculture which is what helped force human beings into communities. It's really one of the things that helped invent human culture. It's about 7000 years of history, and the banana, from its center of (Answer: origin) , which is believed to be Papua New Guinea, spread out with people who traveled in boats across the Pacific into the (Answer: mainland) of Asia and all the way south to Australia across Indonesia and Micronesia and eventually they moved as far as Africa and even possibly to Ecuador all in this time and all on paddle boats and wind driven boats.

My hero is Marie Curie. She was a Polish physicist and chemist working in France, and she did (Answer: conduct) pioneering research on radioactivity. She was also the first woman who won a Nobel prize. Marie Curie is my hero because she showed a lot of (Answer: determination) in following her career path and her (Answer: passions). She also showed a lot of (Answer: patience) in working for years to receive results from her experiments. And Marie Curie, she designed and built the first (Answer: mobile) X-Ray machines. She worked on the front lines of the first World War along with her (Answer: daughter) saving soldiers.

So in a very important tense, um, memory is the cognitive function that stores knowledge that we've acquired through learning and (Answer: perception), but also memory is important because memory frees our behavior from being (Answer: controlled) by the present stimulus environment. If you didn't have memory, all you'd be able to do was (Answer: react) to whatever is currently in the environment now, whatever it is that you're (Answer: experiencing). But memory allows us to respond to past events as well as events in the current stimulus environment. And memory also gives us the means to (Answer: reflect) on our experiences so that we plan for, for future encounters.



One day the banana is perfect. Bright yellow, firm, flavorful. But even within that same day brown spots appear on your perfectly ripe banana, its flesh turns mushy, and it's destined for the compost or at best, banana bread. But scientists are developing a way to (Answer: extend) the life of ripe bananas. It's a spray-on coating made from chitosan—a substance found in crab and shrimp shells. The new gel can be (Answer: sprayed) on bananas to slow the ripening process by up to 12 days. Like other fruits bananas remain alive after being picked and it actually continues to respire. This means that they take in oxygen and release carbon dioxide. The more the banana (Answer: breathes) the faster it ripens and then rots. Bananas ripen more quickly than most fruit because they don't naturally slow the (Answer: respiration) after being picked, in fact it speeds up, causing bananas to become mushy. Chitosan not only kills the (Answer: bacteria) on banana's skin that then leads to rot, it also (Answer: significantly) slows down the respiration in the first place. So bananas won't drive you bananas.

Adidas (Answer: teamed) up with an organization called Parley for the Oceans. Parley goes out and collects plastic waste from the ocean. Adidas uses the plastic waste to make shoes. Shoes made with plastic from the ocean: good for the (Answer: environment) and good for business. Because if you know that rapidly growing consumer (Answer: segment) known as hipsters — and I know you know hipsters — then you know that a hipster faced with the (Answer: choice) between a no-name shoe and an Adidas made with plastic from the ocean will pick the Adidas every day of the week and twice on Sunday, and then walk around like it's no big deal but look for every (Answer: opportunity) to talk about them.

So two decades later, what's changed? It's now widely recognized that just 20 percent of health (Answer: outcomes) are tied to medical care, whereas up to 70 percent are tied to healthy behaviors and what's called the social (Answer: determinants) of health — basically, everything that happens to us for that vast (Answer: majority) of time when we're not in the doctor's office or the hospital. Health care (Answer: executives) now routinely remind us that our zip code matters more than our genetic code. And one health care publication even recently had the (Answer: audacity) to describe the social determinants of health as "the feel-good buzzword of the year".

Good evening ladies and gentlemen. My theme for this session is (Answer: convergence) Technology Change and Business Practice. This is somewhat dear to my heart, in that I have spent much of the last fifteen years involved in various (Answer: aspects) of technology and their impact on business, across a broad (Answer: spectrum), from applications of signal processing in manufacture right through to the use of utilization data and diary applications, to improve the time utilization of the (Answer: sales) force.

What was interesting and revealing about younger and middle-aged views on old age was how (Answer: relative) these were to the individual's own age. Those in their teens regarded 40 as old whereas those in their 40s thought 70 or 80 was old. For many, health was seen as a (Answer: determining) factor in deciding who is old, and many young participants commented on how fit and active their grandparents are, while others thought ill-health and (Answer: dependence) were an inevitable part of aging. The (Answer: majority) of participants, however, regarded old age as something negative, and many expressed fear of (Answer: growing) old.

Lead-in time is the amount of time that elapses between a business placing an order with a supplier for more stock or raw (Answer: materials) and the delivery of the goods to the business. Businesses want the lead-time to be as short as possible, so that they can meet their customer orders and (Answer: minimize) the time between paying for the stock and receiving the (Answer: feedback) from the customer. However, this may not happen due to a number of (Answer: factors), such as delays in the supplier receiving the order, or the breakdown of the suppliers' lorries (Answer: delivering) the stock to the business.

The earlier chocolate was quite unpalatable. They used to add things to it to make it more palatable, so for the early chocolate, they didn't know how to extract all the (Answer: cocoa) fat from it, so it

was, or could be quite (Answer: greasy) and if you made it as a drink you'd have this sort of scum on the top. So they used to try and add things to it, like (Answer: starch) and things, to make it a more palatable product. So there were a lot of (Answer: scandals) around the kind of things they were adding to chocolate in the nineteenth century. So by the sort of 1870s, 1880s, there are people like Cadbury's saying, 'Our chocolate is absolutely pure'. We have this new process, the Van Houten process which now extracts all this (Answer: horrible) fat that we can use to make eating chocolate. Now we have a pure product.

So, palm oil is the most widely produced oil crop currently. It's used in a wide range of (Answer: industries) , including food for bio-fuels and in soaps and shampoo. However, though sector's growing fast, and unfortunately palm oil grows in exactly the same (Answer: environment) as tropical rain forest. So, the use and the (Answer: development) of palm oil, the growth in the sector, is leading to wide-scale deforestation. What we are hoping to do is if we can come up an (Answer: alternative) we can slow the growth of the sector and therefore stop the wide-scale (Answer: deforestation) in south Asia.

We've decided to adopt, just as a loose theme for the course, a (Answer: biological) theme so that you can see the connections between chemistry and biology and the things you might consider doing in the future. We want you to think about the (Answer: molecules) that are relevant to your body, the processes that occur in your body, the chemistry that's going on and how (Answer: energy) plays a role. And we've divided the course into four sections and after each section there will be a mid-term. The first one is about (Answer: matter).

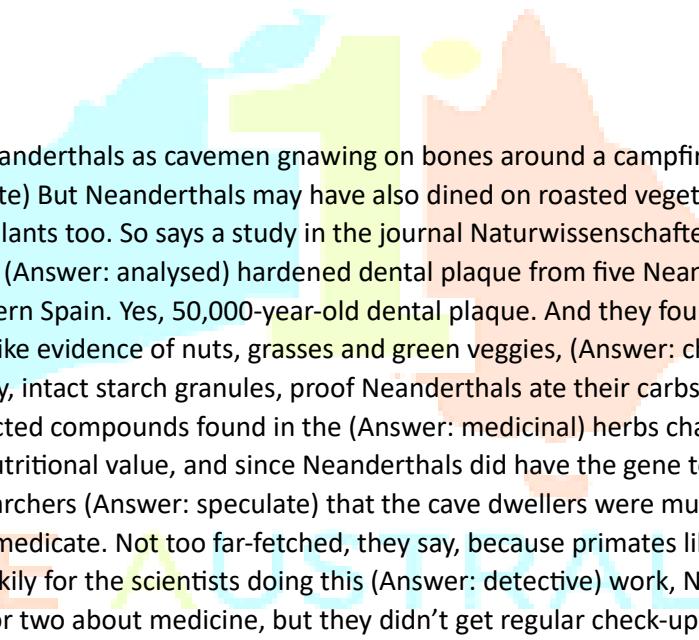
ONE AUSTRALIA

One seminal difference in policy remains; the (Answer: coalition) has not matched what is Labor's most important innovation promise. That is to bring together responsibilities for innovation, industry, science and research under one single federal minister. Innovation responsibilities (Answer: currently) lie within the powerful Department of Education and Science, and while there is a (Answer: separate) industry department, it has little influence within Cabinet. This has (Answer: hampered) policy development and given Australia's innovation policies a distinct science and research (Answer: bias) . It is the scientists rather than the engineers who call the tune in innovation policy in Canberra, so it's no surprise our policies are all about boosting government funded research and later (Answer: commercializing) their results.

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 (Answer: 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 (Answer: unemployment) rate or number of crimes against the person are presented alongside data on people's thoughts and feelings, for example, (Answer: satisfaction) with our jobs or leisure time and fear of crime. Together, a richer picture on 'how society is doing' is provided.

All around the world, significant parts of our cultural heritage are (Answer: threatened) by pollution, neglect, (Answer: carelessness) and greed. In learning the importance of our history, we come to understand the need to protect significant (Answer: remains) from the past so that future (Answer: generations) can come to understand their heritage.



You might picture Neanderthals as cavemen gnawing on bones around a campfire. Which wouldn't be (Answer: 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 (Answer: analysed) 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, (Answer: 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 (Answer: 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 (Answer: 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 (Answer: detective) work, Neanderthals may have known a thing or two about medicine, but they didn't get regular check-ups at the dentist.

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 (Answer: 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 (Answer: childhood) infection called (Answer: respiratory) syncytial virus—or RSV.

Dave Hackenberg, a beekeeper since 1962, can usually tell what killed his bees just by looking at them. If they're lying on the (Answer: ground) in front of a hive, it's probably pesticides, he says. If the bees are (Answer: deformed) and wingless, it's probably (Answer: vampire) mites. But last fall,

Hackenberg saw something he had never seen before. Thousands of his bee colonies simply (Answer: disappeared) . He was in Florida at the time, pulling the lids off some of his commercial hives. To his (Answer: horror) , they were all empty.

It is about a hundred years since that great Canadian-born physician Sir William Osler, Regius Professor of Medicine in Oxford, (Answer: complained) about the increasing influence of the pharmaceutical industry on the medical (Answer: profession) . He would be turning in his grave at the way the industry now dominates doctors' (Answer: prescribing) habits. It does this not only by direct and indirect pressure on the doctors themselves, but also by (Answer: encouraging) the public to ask for scripts.

And one particular crop, almond in the US and now in Australia, is (Answer: 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 (Answer: 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 (Answer: cardiologists) at hospitals to promote the heart benefits of almonds. In a very good promotion of almonds, and it's (Answer: legitimate) promotion because they are a healthy food.

 Well, the simple explanation might be that yesterday's (Answer: 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 (Answer: bargains) . Decision by investors that sellers got a little carried away with things so the buyers have (Answer: 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 (Answer: overseas) European markets remain fairly weak, along with many of the Asian markets. But you'll remember that all this started with a big (Answer: plunge) of around 9 percent on the stock market in Shanghai. Well, Chinese rebounded by around 4 percent.

My current research at the moment is really quite broad. I work at the interface between the Arts and Humanities, particularly (Answer: archeology) , but trying to find questions which are difficult to answer unless you start integrating computing and (Answer: 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 (Answer: landscape) objects and movement of people.

You've heard about SARS, AIDS and bird flu. Now (Answer: 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 (Answer: five) people are said to suffer from Motivational Deficiency Disorder, or Moded, and most don't even know they have it. (Answer: Symptoms) include being unable to get out of bed in the morning, being trapped on the couch.

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 (Answer: powered). This poses a huge challenge given the limited supplies of oil and the growing (Answer: 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 (Answer: sleek), fast automobiles that don't use gasoline. These vehicles of tomorrow are powered by (Answer: 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.



ONE AUSTRALIA



WRITE FROM DICTATION

ONE AUSTRALIA

Biology department is dedicated to research activities.

A new article was published regarding the university last week.

The notification will not be received until the following week.

Gravity is the force that attracts two bodies toward one another.

Formal conclusions could be established through rigorous experiments.

Social psychology is concerned with the understanding of human behaviors.

Houses were built for workers near the factories.

Our faculty includes five libraries in the university.

This is the first example of a modern and professional army.

Muscle cells bring parts of the body closer together.

My technique is to understand the sentence while writing the first letter of each word.

Students must wear protective clothing provided in the medical laboratory.

Physics is a detailed study of matter and energy.

The student union hosts a variety of social events.

Most of the lectures begin promptly, so do not be late.

Currently the growth of the company is unpredictable.

Optional tutorials are offered in the final week of a term.

Before choosing your university courses, you should consider your future career.

It is a debate about the value of knowledge.

We encourage students to complete their applications before the deadline.

Tuition fees will vary according to the fields of study.

There is no ideal debate on this topic.

Any game must be properly elaborated.

While some people regard it as reforming zeal, others regard it as recklessness.

The integration of archeologists' studies with community projects is widely encouraged.

A good academic essay should have a clear argument.

I can't hand in my dissertation this week.

His analysis study appears to be based on the false premise.

The temporary library will be closed in the winter break.

Any gains from the sales of the property must be promptly allocated.

The university will seek a colossal renovation to the faint empty theatre.

The subject is complex and difficult to explain.

Archeologists are astonished by unexpected previously overlooked foundations.

Weather forecasting is becoming more accurate than before.

Classical mechanics is sometimes considered as a branch of mathematics.

You will be tested online.

The posters are on display at the larger lecture theatre.

Graduates from this course generally find jobs in the insurance industry.

The study centre³ in the library has all the latest technologies.

The blue whale is the largest animal that ever lived.

New materials and techniques are changing the style of architecture.

Global connections thrive in academic communities, thanks to social media.

You do not need to have specialist knowledge to enjoy this book.

A world-renowned expert of financial management will give a guest lecture.

There is an accounting assignment for finance students.

You must call your doctor to make an appointment.

Foods containing overabundant calories supply little or no nutritional value.

Before the refrigerator was invented, people used underground ice houses.

All industries consist of systems of inputs, processes, outputs and feedback.

She has been in the library for a long time.

Many experts think that the world climate is changing.

Plants are the living things that can grow in land or in water.

The department is doing some crucial work on climate change.

Years of training are required to become a medical specialist.

A series of lectures which were shown to us in economics have been recorded.

Medical researchers have focused on the causes of diseases and treatments.

The key witnesses to the event have conflicting recollections.

Rivers provide habitats and migration pathways for numerous aquatic species.

The economic predictions turned out to be incorrect.

The finding shows that dark chocolate can improve your immunity, mood and health.

Students are permitted to park at campus parking spaces.

Rising sea temperature is a sign of climate change.

He was regarded as the foremost economist at that time.

Teaching assistance plays a vital role in the learning process.

When the root system of a plant fails, foliage suffers.

A new collection of articles has just been published.

Calculators allow us to add numbers without making mistakes.

The disease that was serious has now been eradicated.

There is no fixed career path for a qualified journalist.

An effective business manager is always open to new ideas.

Your ideas are sophisticated in seminars and tutorials.

Linguistics is the scientific study and analysis of language.

Exotic activities can help students develop more talents.

The commissioner will apportion the funds among all the sovereignties.

You will be tested via continuous assessment and examinations.

Please return the reference book to the correct position on the shelf.

Extracurricular activities can help students to develop more talents.

Audition of the university choir will be on hold until the next week.

The farmers need to adapt to the changes of the climate.

The digital camera has some advantages over traditional film.

The department works closely with its partners in the business community.

The orchestra will be led by a visiting conductor.

Relying on natural ability will not get you far on science.

A visit to the designed museum is of great value.

There will be a chemistry test in the class next week.

Physical health can be improved by regular training.

Honey can be used as food and health product.

Renovation work is currently being undertaken throughout the whole building.

The course involves a combination of pure and applied mathematics.

New developments in manufacturing are constantly changing the way we live.

Designers need to keep up with social trends.

Academic libraries across the world are steadily incorporating social media.

This advanced course requires a basic knowledge of economic theory.

Trees benefit the city by soaking up the rainwater that runs off its road.

We should never underestimate the power of creative design.

Marine environment has been destroyed by pollution and unsustainable development.

The year when the ship of artifacts was wrecked interested historians.

Our study program equips students with essential skills for university.

Americans have progressively defined the process of plant growth and reproductive development in quantitative terms.

Speed is defined as how quickly an object or a person moves.

Artists need to make their works both original and accessible.

Plants are able to continue growing throughout their lives.

You must hand in your essays by midday on Friday.

Tribes vied with each other to build up monolithic statues.

The castle was designed to intimidate both local people and the enemies.

Sugar is a compound which consists of carbon, oxygen, and hydrogen.

You need to put these books on the table over there.

Being bilingual does not mean having the ability to analyze the language.

A series of the observations were carried out in the classroom.

Food has become a political issue in the world.

Too much information may be avoided by good research design.

The university has invested in the new technology designed for learning.

The area has a number of underwater habitats and species.

Late applications are not accepted under any circumstances.

Students should leave their bags on the tables by the door.

The collapse of the housing market has triggered recessions throughout the world.

Momentum is defined as the combination of mass and velocity.

The north campus car park could be closed on Sunday.

Graphs are often useful for geographical research.

Animal and plant cells have a number of structures in common.

Firm conclusions can be established through rigorous experiments.

The library will be closed for staff training tomorrow morning.

The reception staff can give information of lending and printing.

Your ideas have been discussed and debated in seminars and tutorials.

The bus to London will leave ten minutes later than expected.

We need to answer security questions if we want to reset the password.

Salt is produced from the seawater or extracted from the ground.

They developed a unique approach to training their employees.

I thought it was thrown in a small meeting room.

Resources and materials are on hold at the library reference desk.

Astronauts are using light years to measure the distance in space.

Listening is the key to succeeding in this course.

Human beings compete with other living things for resources and space.

Strong liner is used to measure distance and baseline.

Everyone must evacuate the premises during the fire drill.

Many vocational courses in the institution are funded by private enterprises.

A laptop has been found at the biology lab.

The opening hours of the library are reduced during summer.

The reception staff can give advice about renting private accommodation.

A group meeting will be held tomorrow in the library conference room.

Universities should invest in new technologies designed for learning.

Tutors should set a clear goal at the start of the class.

Time and distance are used to calculate speed.

Our facilities include five items in the university.

The department has a higher-than-normal proportion of postgraduate students.

The cooperator operates a continuous assessment.

Students who study overseas can significantly improve work chances.

Strangely, people are simultaneously impressed by and skeptical of statistics.

Research shows the exercising makes us feel better.

Protective clothing must always be worn in the laboratory.

Economic development needs to be supported by the government.

Continuing students will be sent necessary application forms.

Good nutrition is crucial to the general health and vitality.

More graduate training is often needed after the university study is finished.

His appointment as Minister of Culture was seen as a demotion.

Writing an essay is easy once the research is finished.

We study science to understand and appreciate the world around us.

Understanding how to use the library will save your time.

Traffic is the main cause of air pollution in many cities.

The vocabulary that has peculiar meanings is called jargon.

The rising temperature is changing the wildlife population.

The railway makes long-distance travel possible for everyone.

The professor took a year off to work on her book.

The key difference between courses is the kind of assessment.

The island is located at the south end of the bay.

The introduction is an important component of a good presentation.

The essay will be published once the research is finished.

The director of the gallery was grateful for the anonymous donation.

The designers will complete the plan later today.

The plight of wildlife has been ignored by local developers.

The university theater group will be performing in the concert hall.

The course helps students to improve their pronunciation skills.

The city's founders created a set of rules that became laws.

The chemistry building is located near the entrance of the campus.

The application process may take longer than expected.

Studies show there is a positive correlation between two variables.

Students were instructed to submit their assignments by Friday.

Students are encouraged to monitor their own attendance.

Sea levels are expected to rise during the next century.

Radio is a popular form of entertainment throughout the world.

The curriculum needed to be adjusted for the current development.

Remember, the prestigious election of stewardship has strict eligibility criteria.

Please note, submission deadlines are only negotiable in exceptional circumstances.

Peer group pressure has a great effect on young people.

Packaging is very important to attract the attention of a buyer.

Most scientists believe that climate change threatens lives on the earth.

It is important to make clear notes while you are reading.

In this language course, we focus on fluency and accuracy.

Important details from the argument are missing in the summary.

I don't think it's possible to solve the problem easily.

The extent of advertising for children is open to much debate.

Students should have awareness of how the business develops globally.

Lectures are the oldest and the most formal teaching method at university.

The archeologist's new discoveries stand out in previously overlooked foundations.

He landed his job in a very prestigious law firm.

Students requiring an extension should apply sooner rather than later.

Daily practice can build confidence and improve skills.

Convincing evidence to support this theory is hard to obtain.

And in that regard, as well as in other regards, it stands as an important contribution.

All the educational reforms have been inadequately implemented.