

PTE PREDICTION FILE

FEB - MAR 2025



Why pay in 1 payment?

Pay now with **afterpay** 

Join any of our PTE/NAATI/IELTS courses and pay in 4 instalments starting \$49.75/payment via AFTERPAY

FILE INCLUSIONS

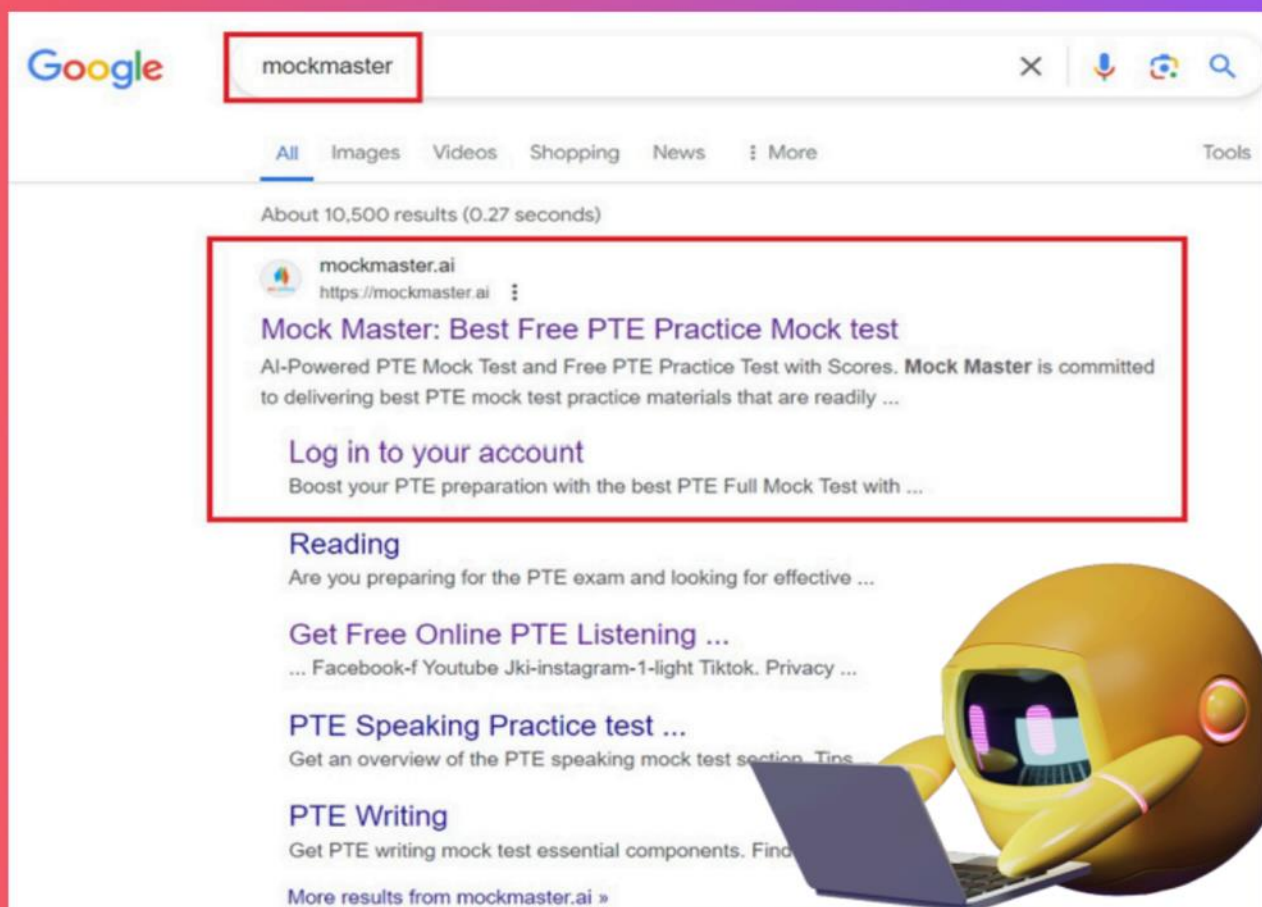
READ ALOUD
REPEAT SENTENCE
DESCRIBE IMAGE
RETELL LECTURE
ANSWER SHORT QUESTIONS
SUMMARIZE WRITTEN TEXT
WRITE ESSAY
RE-ORDER PARAGRAPH
READING FIBS
READING AND WRITING FIBS
SUMMARIZE SPOKEN TEXT
LISTENING FIBS
WRITE FROM DICTATION



MOCKMASTER.AI



AI-POWERED PTE MOCK TEST
AND FREE PTE PRACTICE TEST
WITH SCORES



Mock Master is committed to delivering best PTE mock test practice materials that are readily accessible for taking PTE tests and practice exams. To guarantee the greatest results, these resources are created with the needs of the student in mind.

Get ready with our new-format of PTE full mock test consisting of 2 hours and section-specific practice tests to reach your target score, receiving instant results. Our PTE full mock test with answers help you concentrate on specific sections to target areas where you need improvement.

SERVICES WE OFFER

PTE | NAATI | IELTS
PROFESSIONAL YEAR
(IN ALL AUSTRALIAN STATES)



a_one_australia_education



+61466466603/+61466466609



AONEAUSTRALIAEDUCATIONGROUP



Dear friends,
This latest PTE Prediction File is our latest attempt to help you with the best preparation source to ace your PTE-A test in your next attempt!

We are not only the best PTE Institute in Melbourne, but we are also the #1 PTE, NAATI, and IELTS Institute, bringing students one step closer to accomplishing their Australian/Canadian PR dream.

If you want to make your next **PTE/NAATI/IELTS** attempt your last attempt, simply leave us a WhatsApp message with your name and message on +61466466603/+61466466609.

We will make sure that we get the job done!

Link: <https://oneaustraliagroup.com/prediction-file/>

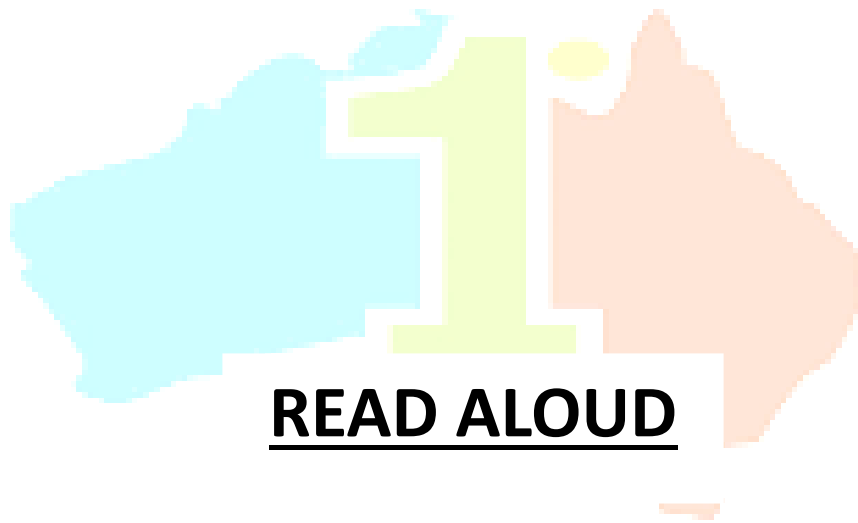
Note: For best results, also go through our previous 2 PTE Prediction files.



Table of Contents

Tasks	Page Number
<u>Read Aloud</u>	<u>7</u>
<u>Repeat Sentence</u>	<u>16</u>
<u>Describe Image</u>	<u>22</u>
<u>Retell Lecture</u>	<u>65</u>
<u>Answer Short Questions</u>	<u>86</u>
<u>Summarize Written Text</u>	<u>99</u>
<u>Write Essay</u>	<u>119</u>
<u>Fill in the Blanks R/W</u>	<u>127</u>
<u>Fill in the Blanks R</u>	<u>151</u>
<u>Reorder Paragraphs</u>	<u>169</u>
<u>Summarize Spoken Text</u>	<u>184</u>
<u>Fill in the Blanks L</u>	<u>199</u>
<u>Write from Dictation</u>	<u>213</u>





READ ALOUD

ONE AUSTRALIA

Learning Method

There is no single method of learning that guarantees success. How we learn that depends on many different factors. And what works best for you will not necessarily be the same as the approach used for the other students even they study the same course. We are all unique as learners, although some patterns emerge from any groups of students.

Only Family

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?

Domestic Division

Traditional divisions of domestic work are understood to persist because of the strong association of the home with femininity and paid work with masculinity - to challenge who does what in the home is arguably tantamount to challenging what it is to be a woman or a man.

Actor Training

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.

Elephant

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 Farm

Shrimp farmers used to hold animals in nursery ponds for 30 to 60 days; now they try to move them into grow-out ponds in less than 30 days. This reduces stress on the animals and dramatically increases survivals in the grow-out ponds. Many farms that abandoned nursery ponds have gone back to them, and the results have been surprisingly positive. They're using the old, uncovered, earthen, nursery ponds.

Mathematics

Competence in mathematics was another trouble spot. More than half said that the real task for school graduates is their deficiency in mathematics, while more than 10% of respondents said that college graduates are deficient in the subject, and 70% said they are adequate.

Semiconductor Industry

The semiconductor industry has been able to improve the performance of electronic systems for more than four decades by making ever-smaller devices. However, this approach will soon encounter both scientific and technical limits, which is why the industry is exploring a number of alternative device technologies.

Blue

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.

Most Important Things

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.

Fish in Distress

Our field teams have come across fish in distress or even eels stranded and it is simply that the water's got too hot. Often dissolved oxygen concentrations go down as water temperature increases and animals may seek refuge outside the water, or in fact they may be stranded if the water's evaporating

very quickly.

Botanic Gardens

Botanic gardens are scientific and cultural institutions established to collect, study, exchange and display plants for research and for the education and enjoyment of the public. There are major botanic gardens in each capital city. Zoological parks and aquariums are primarily engaged in the breeding, preservation and display of native and exotic fauna in captivity.

Blue (B)

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.

Furniture

There are perhaps three ways of looking at furniture: some people see it as purely functional and useful, and don't bother themselves with aesthetics; others see it as essential to civilized living and concern themselves with design and how the furniture will look in a room in other words, function combined with aesthetics; and yet others see furniture as a form of art.

Avi Loeb

"The situation is similar to a pregnant woman that has twin babies in her belly," says Avi Loeb of the Harvard-Smithsonian Center for Astrophysics. He's proposing the idea in a paper that's been accepted for publication in the Astrophysical Journal Letters.

Yellow

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.

Tesla & Edison

Tesla actually worked for Edison early in his career. Edison offered to pay him the modern equivalent of a million dollars to fix the problems he was having with his DC generators and motors. Tesla fixed Edison's machines and when he asked for the money he was promised, Edison laughed him off and had this to say, "Tesla, you don't understand our American humor."

Lincoln

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.

Market Research

Market research is a vital part of the planning of any business. However experienced you or your staff may be in a particular field, if you are thinking of introducing a service to a new area, it is important to find out what the local population thinks about it first.

Alphabet

The problem begins with the alphabet itself. Building a spelling system for English using letters that come from Latin - despite the two languages not sharing exactly the same set of sounds - is like building a playroom using an IKEA office set.

Shakespeare

A young man from a small provincial town a man without independent wealth, without powerful family connections and without a university education - moved to London in the late 1580's and, in a remarkably short time, became the greatest playwright not of his age alone but of all time. How was this achievement of magnitude made? How did Shakespeare become Shakespeare?

Subject Outlines

Your subject outlines are a good place to go to find information about which textbooks to buy. You will usually be given one of these for each subject in the first lecture, but if you are missing one or need one earlier then you should contact the subject coordinator.

Global Changes

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.

Female Undergraduates

The most obvious change is that 46% of college undergraduates are now women. When I went there, it was only the third year that women had been admitted, and then seemingly grudgingly: about 70% of students were male, and if there was a woman tutor she must have been a male impersonator.

Window in Painting

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.

Brain Efficiency

Efficiency is not your friend when it comes to cognitive growth. In order to keep our brains making new connections and keep them active, you need to keep moving on to another challenging activity as soon as you reach the point of mastery in the one you were engaging in.

Earthquake

Investigations like this one have been plodding along for 40 years, and some studies like one following the deadly Kobe quake in 1995 - have found similar correlations. But study author Alasdair Skelton, a professor of geochemistry at Stockholm University, says the unpredictable study subject makes it tough to get funding because you can in no way guarantee a result. So I get three years of money , but if there's no earthquake, there's no result.

Amphibians

Whether salamander, frog or toad, amphibians are some of the most diverse and far-flung animals on

the planet. However, they're disappearing, and experts are worried since frogs are considered bellwethers for the environment. Their double life makes them unique. It's through their skin that they breathe and drink water because their skin is so permeable.

Cloud Seeding

Cloud seeding, a form of weather modification, is a way of attempting to change the amount of precipitation that comes from clouds. Cloud seeding is carried out by dispersing substances into the air, but it also occurs due to ice nuclei in nature, most of which are bacterial in origin.

Antarctic

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.

Job Hours

Most of us spend on average 18 hundred hours per year in our jobs, and will work for about 40 years before retirement. When you consider the amount of time spent in the office, you soon realize how important it is to feel a sense of achievement at the end of the day, rather than just meeting financial objectives.

Tissues and Organs

Tissues are grouped together in the body to form organs. These include the brain, heart, lungs, kidneys, and liver. Each body organ has a specific shape and is made up of different types of tissue that work together. For example, the heart consists mainly of a specialized type of muscle tissue, which contracts rhythmically to provide the heart's pumping action.

Hunter-gatherer

The life of a hunter-gatherer is indeed, as Thomas Hobbes said of the state of nature 'solitary, poor, nasty, brutish, and short'. In some respects, to be sure, wandering through the jungle bagging monkeys may be preferable to the hard slog of subsistence agriculture.

Smartphones

Smartphones have become an everyday essential for millions of us we rely on them for everything from updating our social media profiles to banking. Taking out a smartphone contract that bundles together your calls, data, and texts with the cost of the handset can help spread the cost - but can also mean you'll pay more over the long run.

Selective History

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

Civil War and Lincoln

The southerners did not accept Lincoln as a president because of certain reasons. based on historical grounds. Southerners wished to protect their rights in the government and become more independent from the north. They considered president elections to be unfair. Moreover, they thought that their own rights will be ignored and limited. All this caused the separation of the southern states and marked the beginning of the Civil War.

Electricity Discoveries

The Royal Institution is an organization that has been around for 209 years. Many of the people that have worked here have been scientists themselves, including Michael Faraday. He made the discoveries that made generating and using electricity much easier, making it possible for us all to switch on lights, cook our dinner, play games consoles much, much more.

Telecommunication

Today, telecommunication is widespread and devices that assist the progress are common in many parts of the world. There is also a vast array of networks that connect these devices, including computer, telephone and cable networks. Computer communication across the Internet, such as e-mail and instant messaging is just one of many examples of telecommunication.

Artificial Intelligence

Researchers have designed an artificial intelligence model that is better able to predict how much students are learning in educational games. The improved model makes use of an AI training concept called multi-task learning, and could be used to improve both instruction and learning outcomes.

Australian Mining Industry

Australia has one of the world's most important mining industries. It is a major exporter of coal, iron ore, gold and copper and is self-sufficient in all minerals bar petroleum. Since the first discoveries, the coal in 1798, mineral production has risen every year. In the decade to 1992 it doubled.

Man-made Light

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.





REPEAT SENTENCES

ONE AUSTRALIA

You must wear a hard hat on the construction site.

The library is downstairs on the east of the building.

If you have any questions in the exam, please raise your hands.

This semester will be from October to January.

Your car can park in the building behind the medical center.

A study skill seminar is on for the students who require assistance.

Would you pass me the textbook on that table?

The investigation aims to find the stand of the problem.

There are various approaches for plagiarism across different university departments.

If you want to sell your book, it must have a bibliography.

The competency of language in the assignment is to use more formal words.

They have enough work to keep them going.

It is argued that students can learn more by collaborating rather than as individuals.

Students are not allowed to speak when they are in the examination hall.

Students are allowed to bring dictionaries to the exam.

Scientists are always asking the government for more money.

Higher education means higher pay and more opportunities you will get.

Control systems in manufacturing require a high level of accuracy.

Students from various backgrounds can achieve a variety of qualifications.

We will change the classroom because this one is too small.

Car park permits can be obtained at the student service center.

You are not sure that you can skip the sessions for Wednesday.

Your abstract should contain the empirical evidence of your research.

We often ask our students to get access to all sorts of services.

Try to get through it as soon as possible.

Scientific beneficiary to space exploration is frequently questioned.

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

The bus for London will leave ten minutes later than planned.

If you show your student card, you will get a discount.

After considering all the options she decided to take risks.

The graph shows the population growth in the last century.

The origin of psychology can be traced back to ancient Greece.

Experts cannot agree on a single definition of intelligence.

There is a lot more about this topic on the university website.

The literal output of this research is prolific and diverse.

Students fear to write essays because they do not know how to do it.

It is expected that all students have their own laptops.

None of the students found it difficult to get a job.

His particular interest is in the eighteenth century French society.

Such behaviors are regarded as a deviation of the norm.

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

Renewable energy sources are now used to produce electricity.

Living in the twenty first century is increasingly stressful.

Please make sure you use the standard form of quotation.

Please read the article that was given out yesterday.

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

We weren't able to agree on the appropriate independent variables.

The assessment of this course will begin next week.

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

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

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

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

A balanced diet will help you study more effectively.

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

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

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

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

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

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

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

Each group should submit a rough outline of their project to their tutor.

There is a fitness center next to the student union.

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

Tomorrow evening, there will be a panel discussion on sustainable development.

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

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

Eating a healthy breakfast can provide energy throughout the day.

The deadline of assignments is the fourth of February.

The information you need for this meeting is on the website.

This Thursday is the last day for students to withdraw subjects without any penalty.

An essay should use evidence from both primary and secondary sources.

The English expression is just a way of saying that age is not important.

You can borrow up to two books at the same time in the library.

I am glad that Professor Gordon just joined our faculty.

Mobile phone chargers vary enormously from one place to another.

There are many welcoming activities for new undergraduate and postgraduate students.

Students can choose graduate certificate, graduate diploma and master course.

Please note, the proposal submission deadline has been extended.

Many species have not yet been discovered by biologists.

He told me it was the most important assignment of all.

The trial experiment aims to increase interest in the issue and the jurisdiction clause.

The media have had a great influence on people's beliefs and attitudes.

You realize that you can deal with a lot of situations.

Marks will be awarded for a bibliography in the correct format.

The campus car park will be closed next weekend.

Understanding the historical context will help you appreciate the art in this era.

She's doing a master's degree by distance learning.

Numerous courses devoted to life sciences are listed in the prospectus.

It's obviously vital that companies should fully understand their customers.

The results of the study challenge previously held assumptions.

Please make an appointment before attending the next meeting.

Please make sure you have filled in all your details before submitting.

You have to submit projects by the end of this week.

Keeping organized class notes will make study time more efficient.

In Russia, my colleagues said my written language was hard to understand.

For further information, you need to contact a member of our administration team.

Students may not use calculators in the final exams.

The first draft of the presentation is almost ready.

The subject is complex and difficult to explain.

In your introduction, show you understand the question in no more than four sentences.

Telecommunication is based on the array of networks.

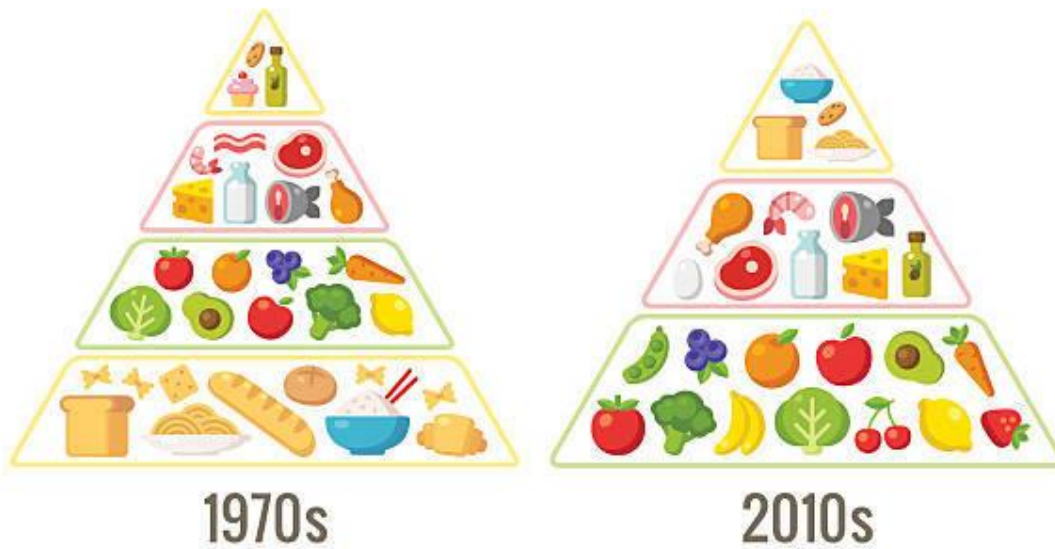




DESCRIBE IMAGE

ONE AUSTRALIA

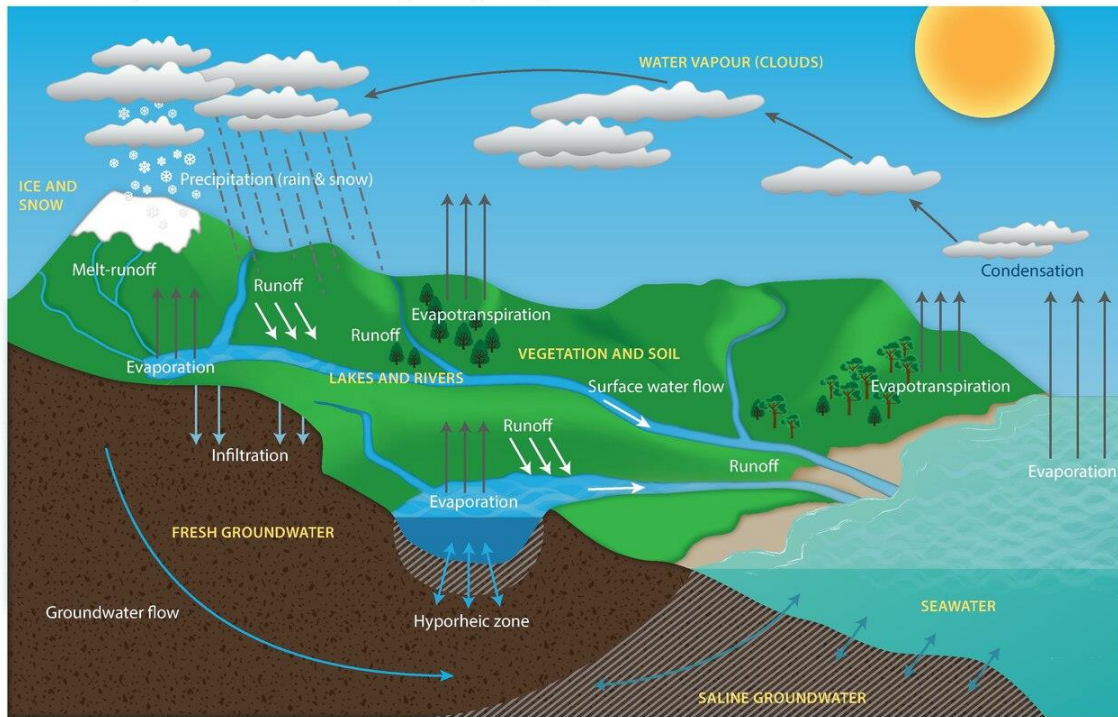
THE NEW FOOD PYRAMID



ONE AUSTRALIA



The water cycle – also known as the hydrological cycle

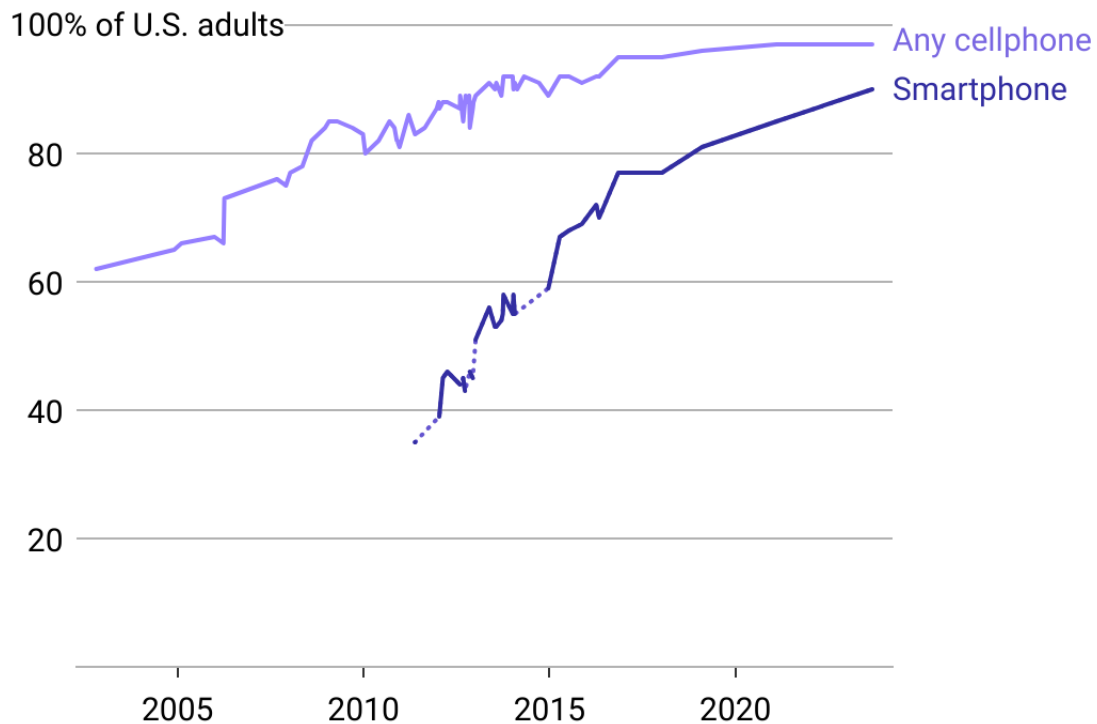


DISTRIBUTION OF HARLEQUIN LADYBIRD



The rise of the smartphone

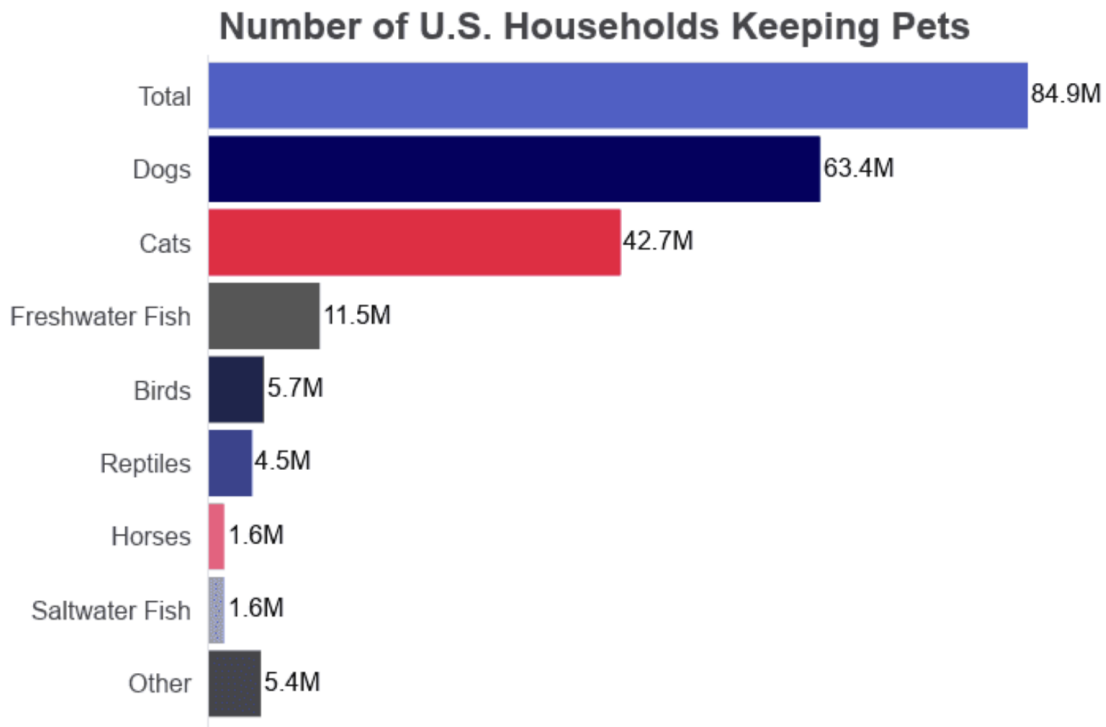
Most cellphone owners in the U.S. have smartphones.

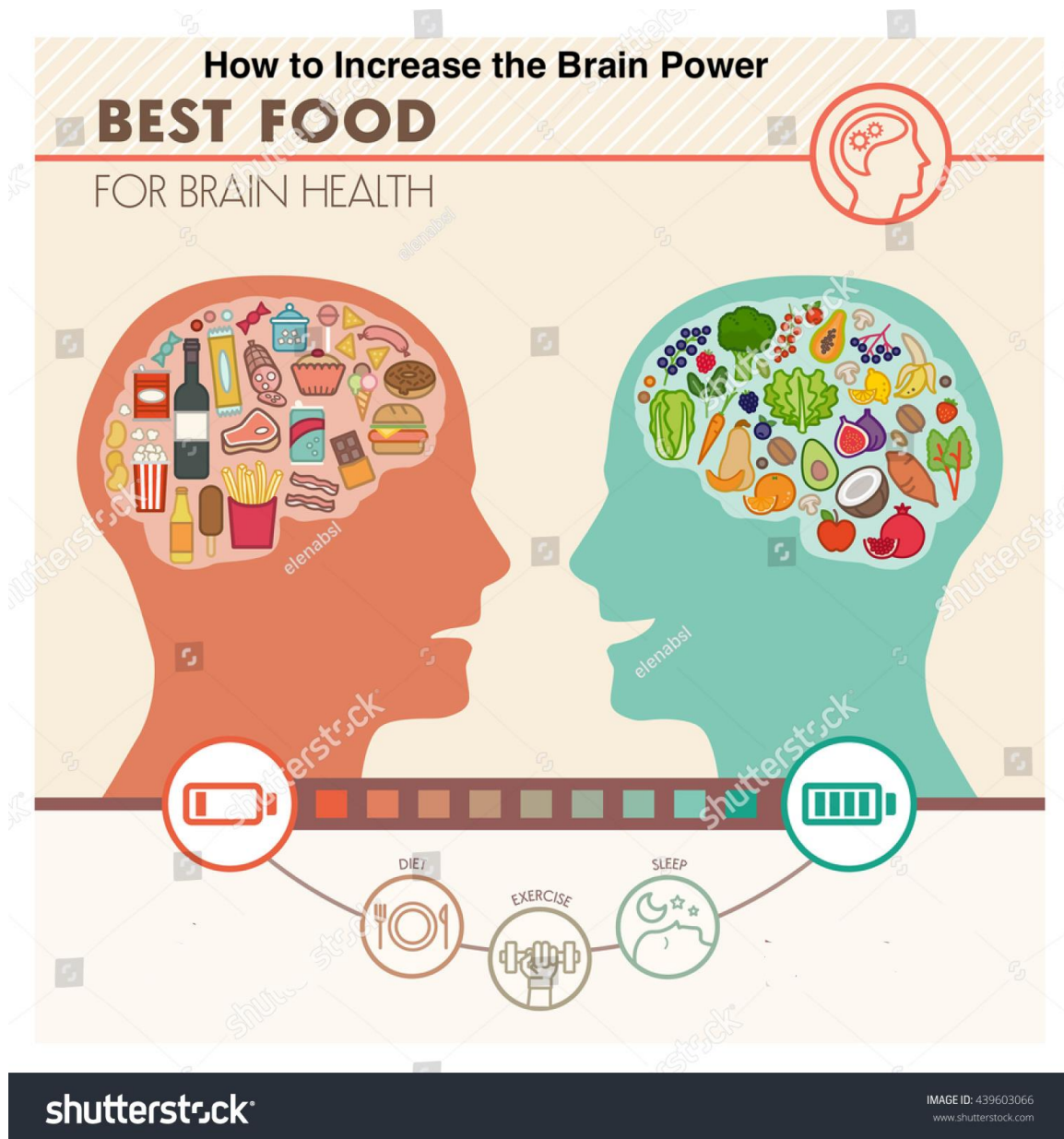


Note: Before 2023, surveys were conducted over phone. 2023 responses were collected via web and mail.

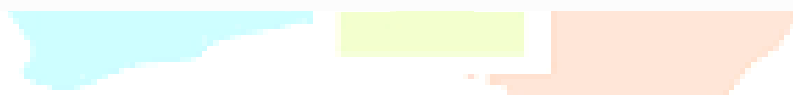
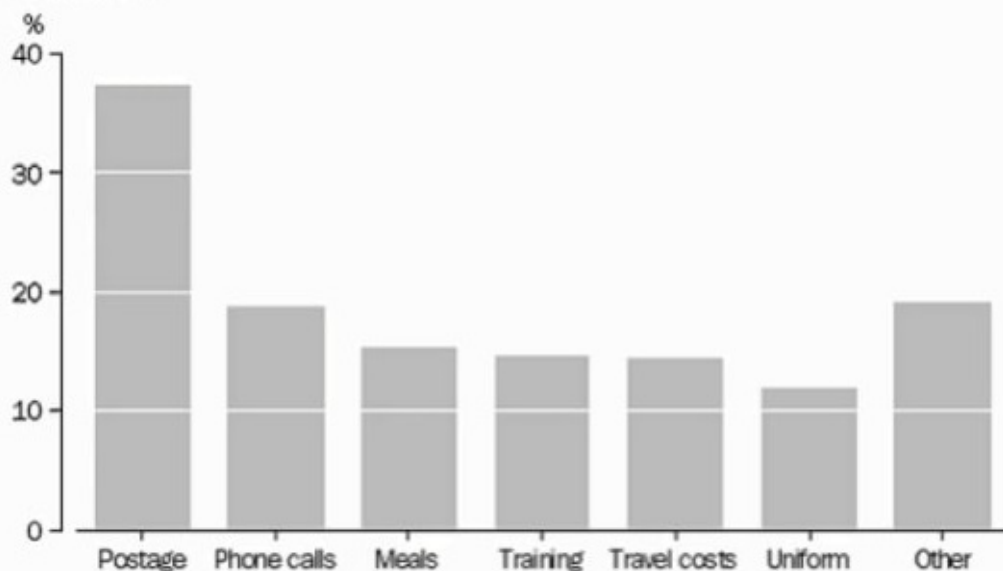
Data source: Pew Research Center



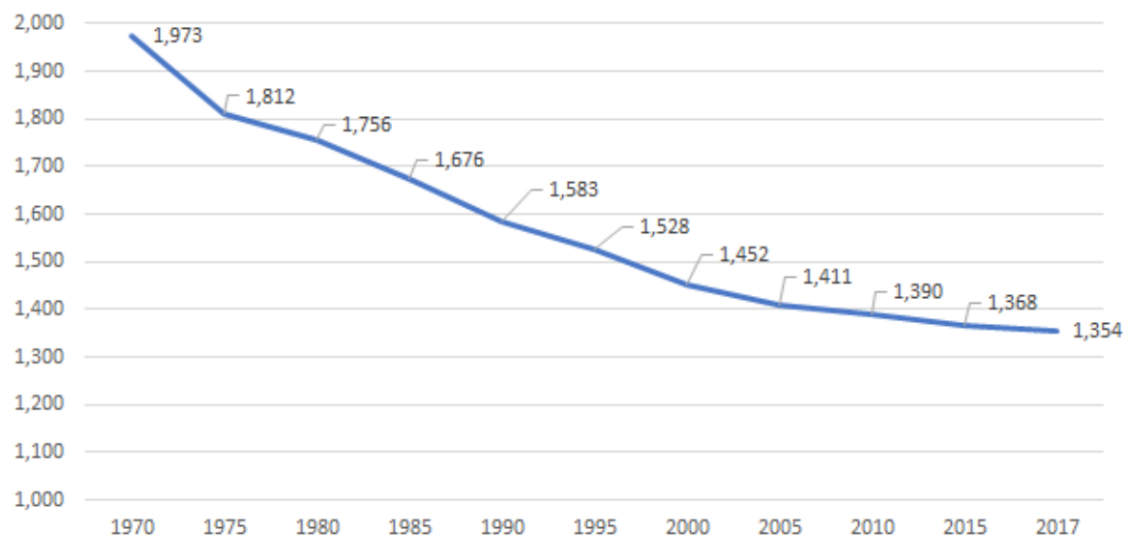




VOLUNTEERS WHO INCURRED EXPENSES: REIMBURSEMENT AVAILABLE



Annual working hours in Germany 1970-2017



Flu vaccination rates for people over 65 yrs old in 2018 (in %)

South Korea 85.1

UK 72.0

USA 68.7

Portugal 60.8 (2017)

Italy 52.7

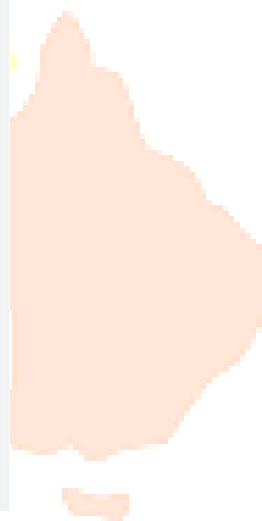
Sweden 52.2

France 51.0

Germany 34.8 (2017)

Latvia 7.7

Turkey 7.0 (2016)



ONE AUSTRALIA

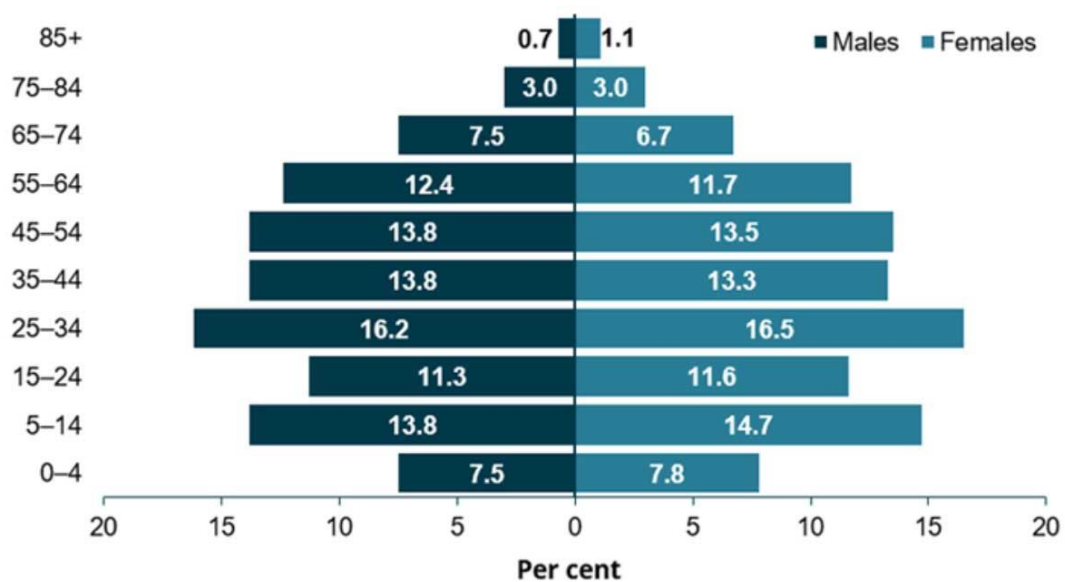


The World's Biggest Chocolate Consumers

Pounds of chocolate consumed per capita each year



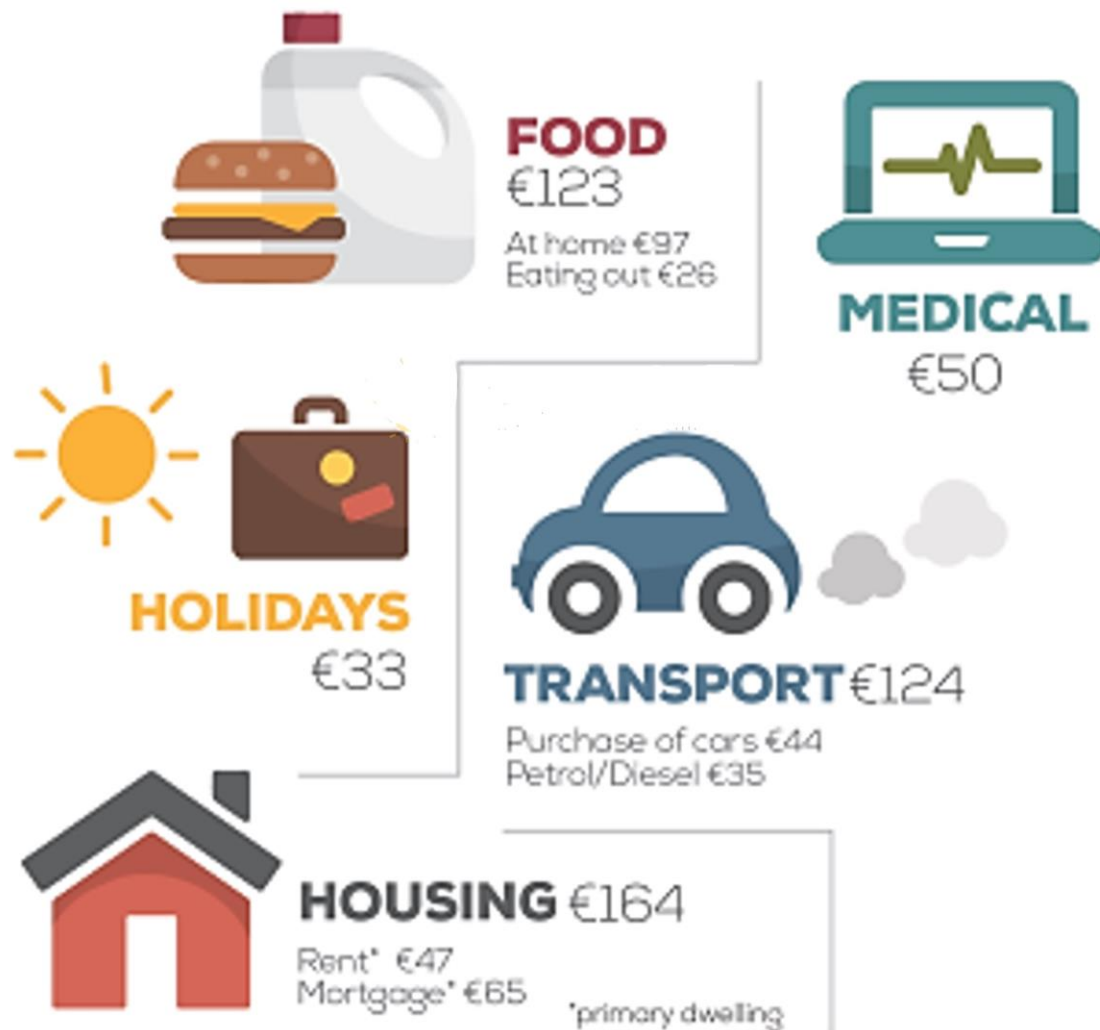
Age group



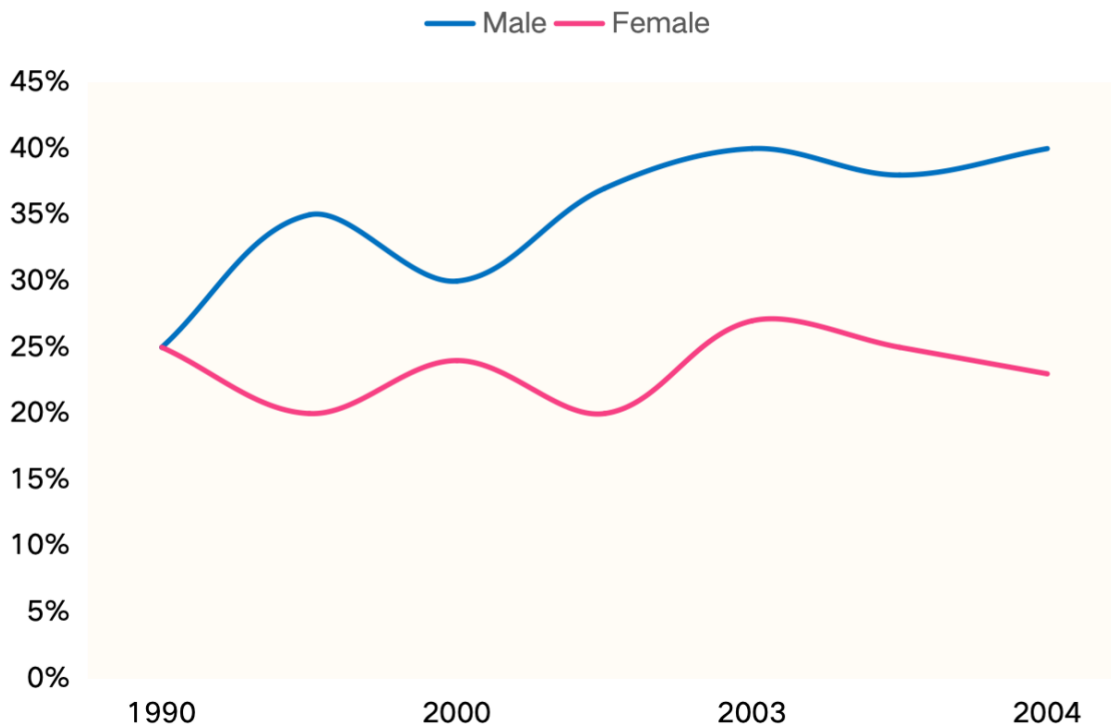
ONE AUSTRALIA



Weekly Household Spending, Ireland, 2015-16



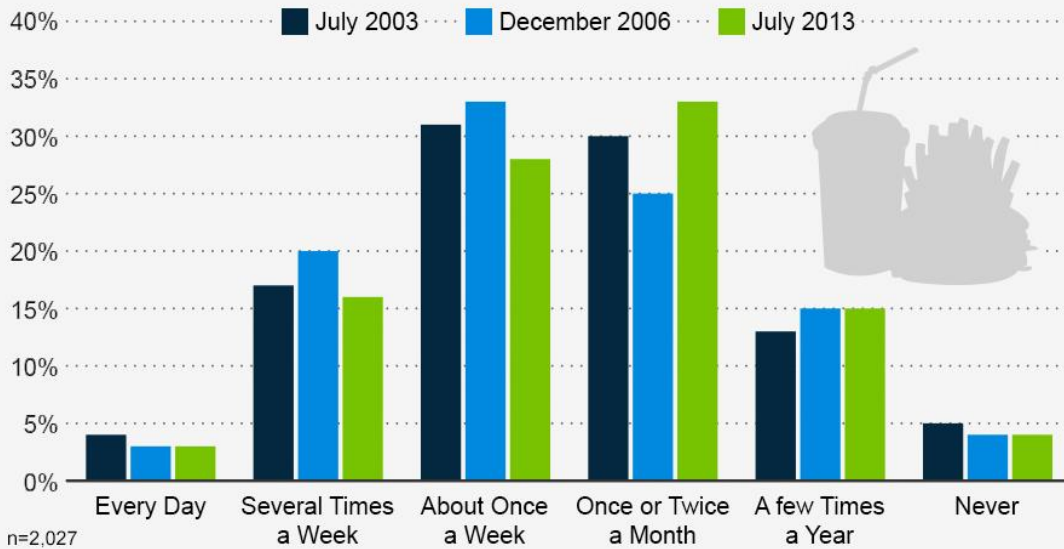
The ratio of male and female volunteers changes over the years



ONE AUSTRALIA

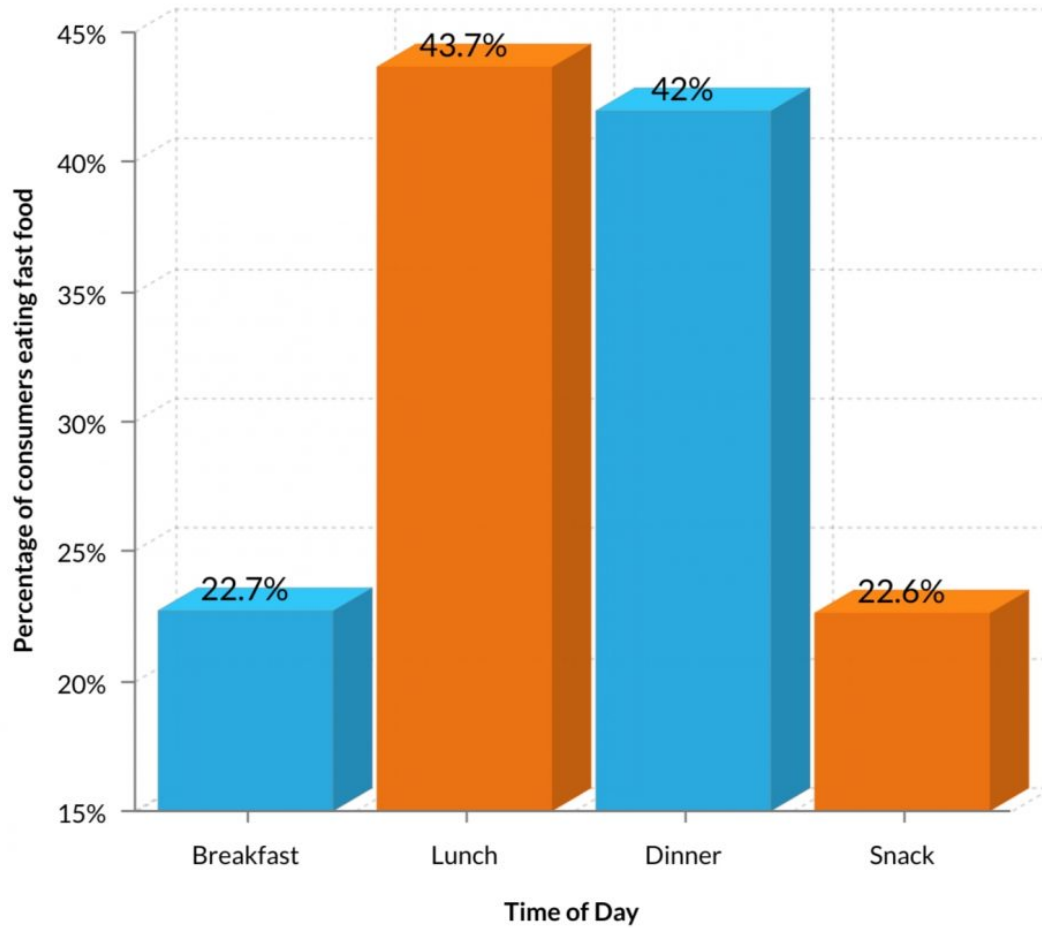
1 in 5 Americans Eat Fast Food Several Times a Week

Frequency of dining at fast food restaurants among Americans

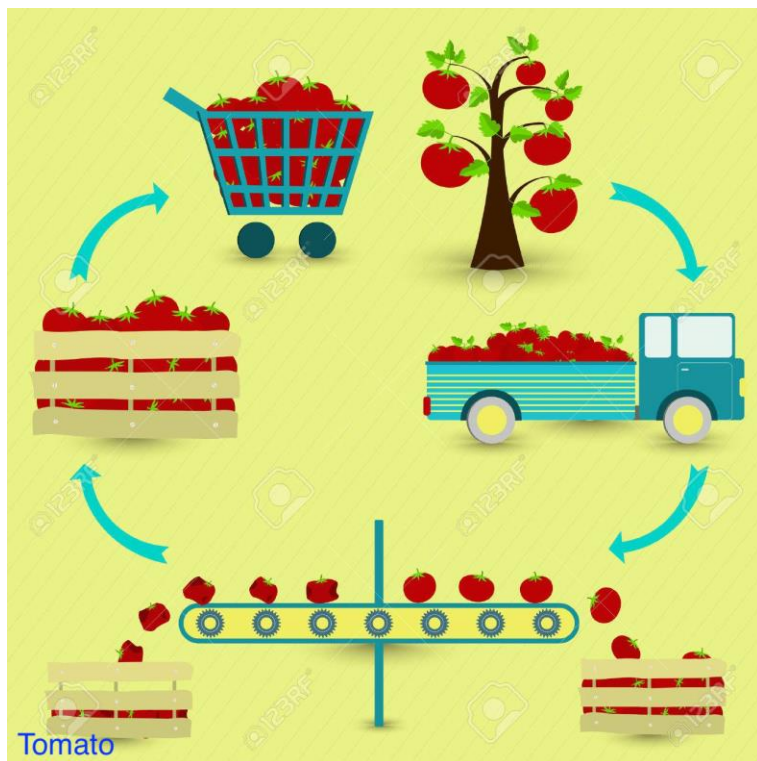


ONE AUSTRALIA

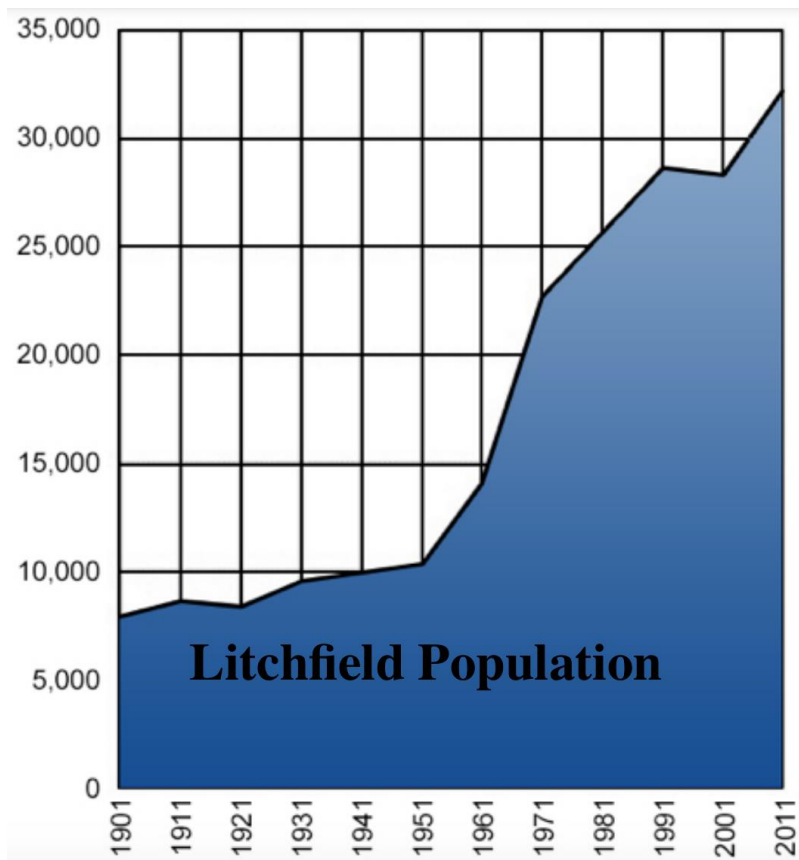
Fast Food Consumption by Meal



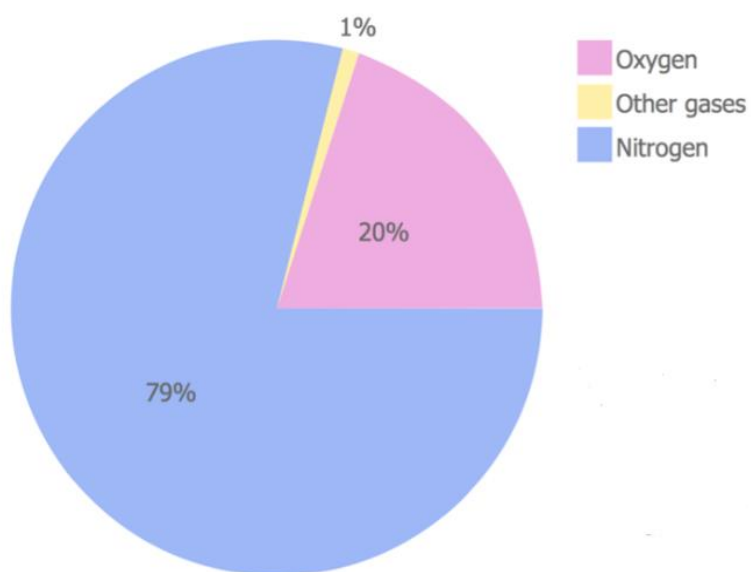


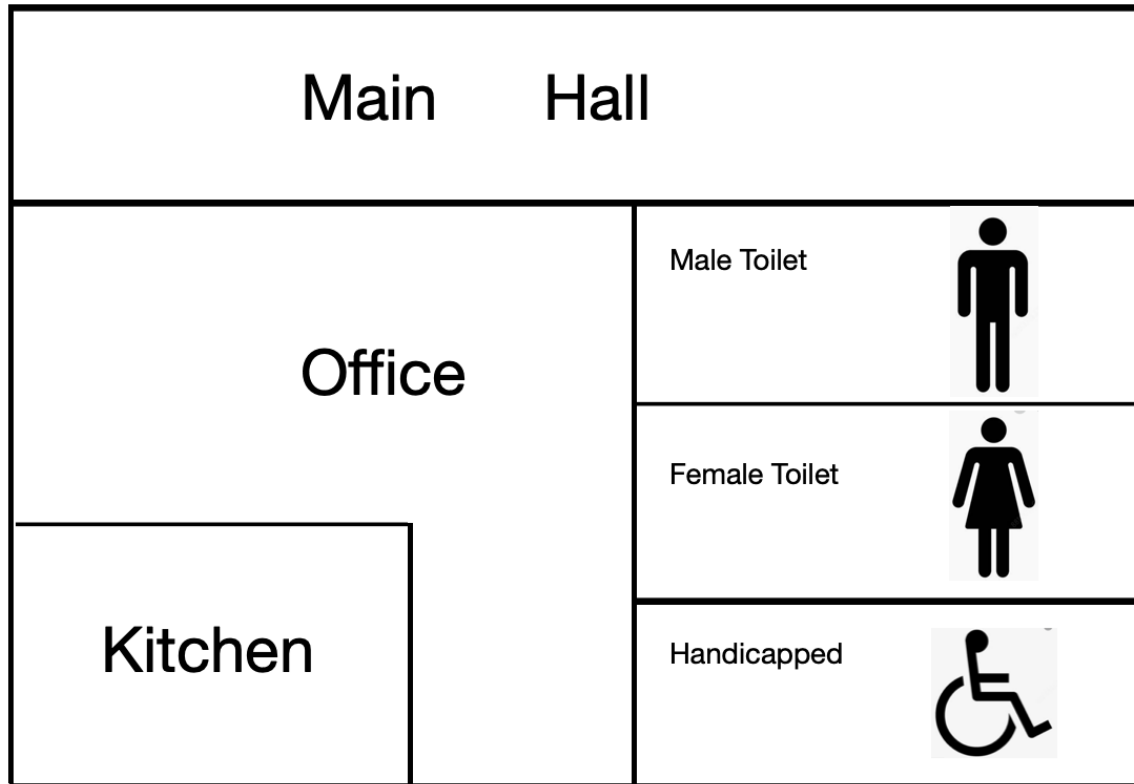


ONE AUSTRALIA

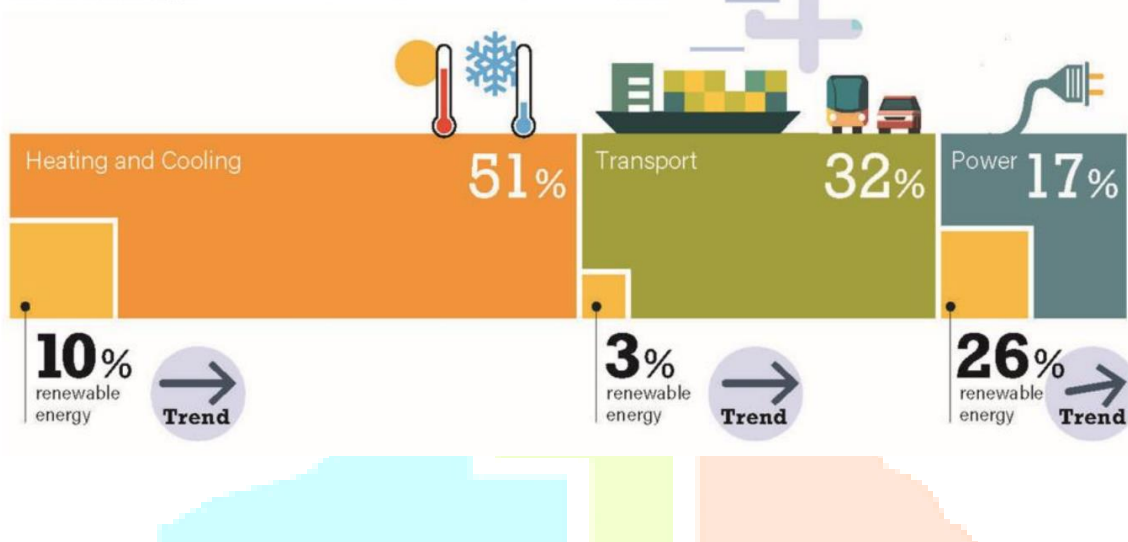


Approximate composition of the air

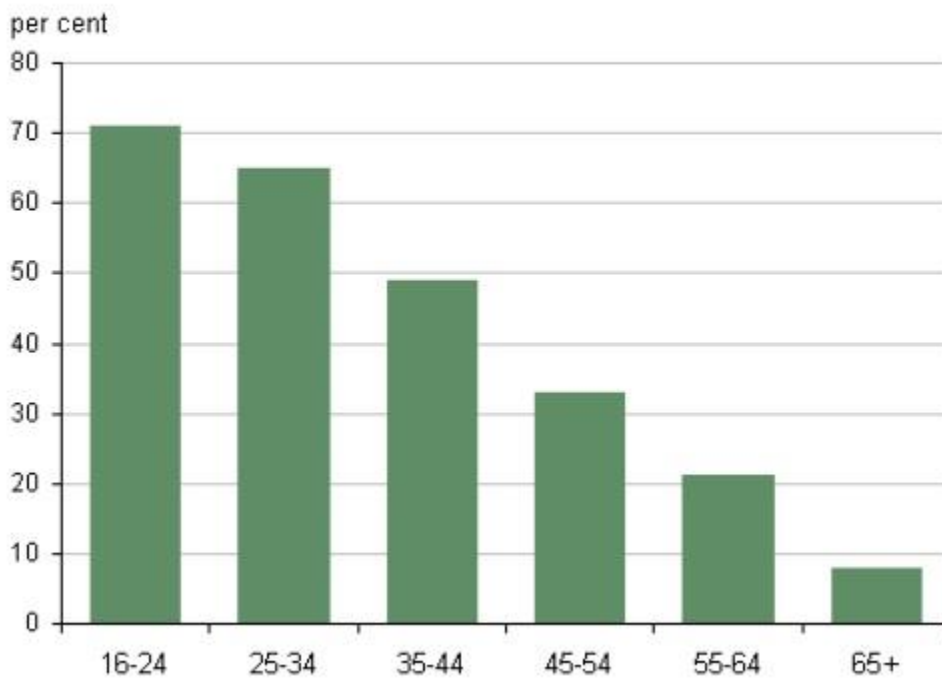




Renewable Energy London's expected energy target in 2030

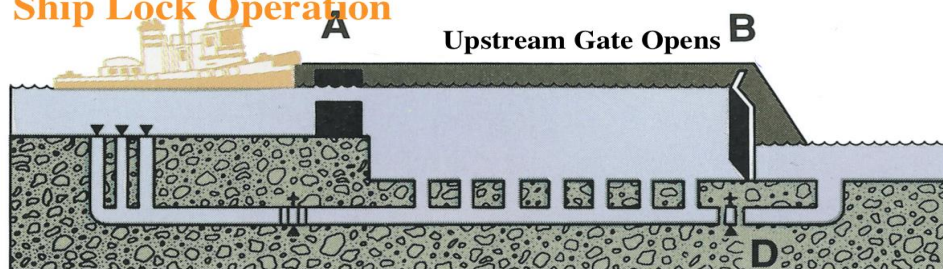


Internet users who accessed via a mobile phone, GB, 2011

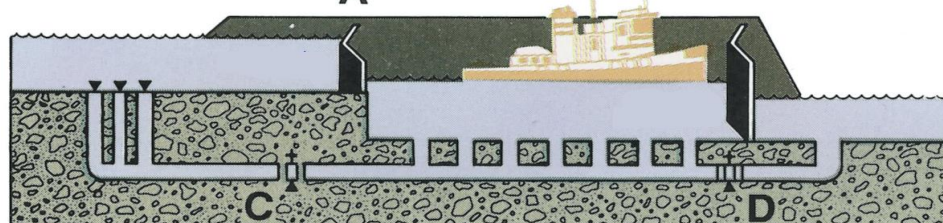


A

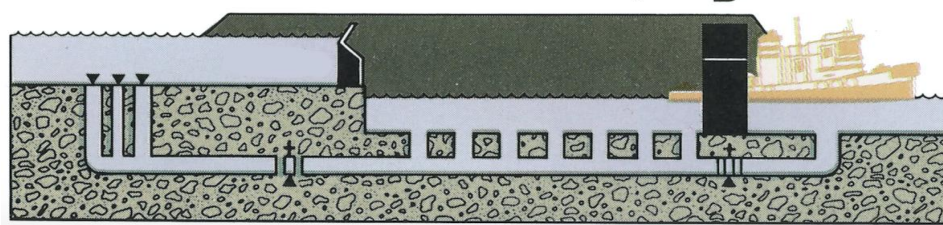
Ship Lock Operation



A Upstream Gate Closes and Water Level Evens

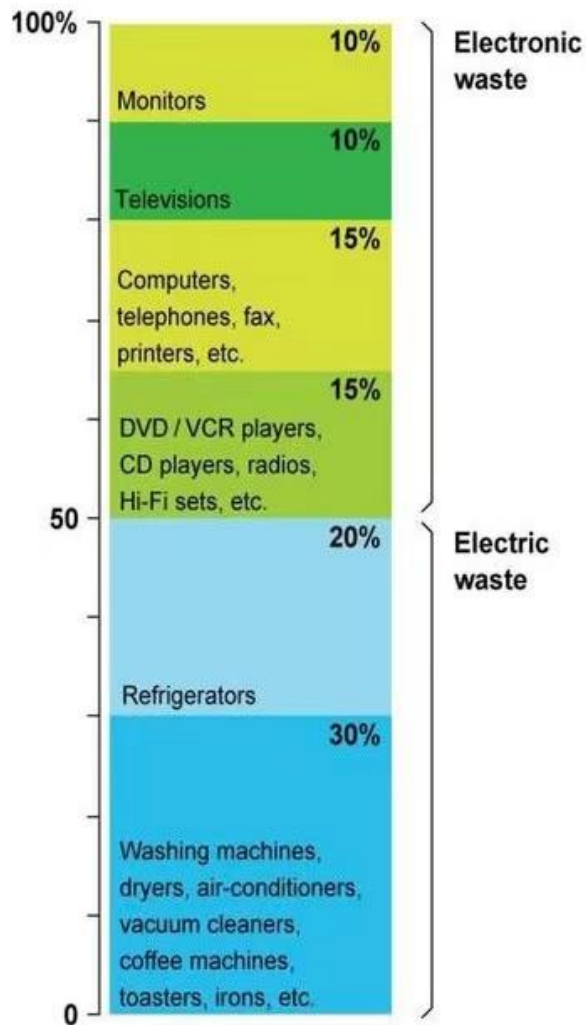


B Downstream Gate Opens



ONE AUSTRALIA

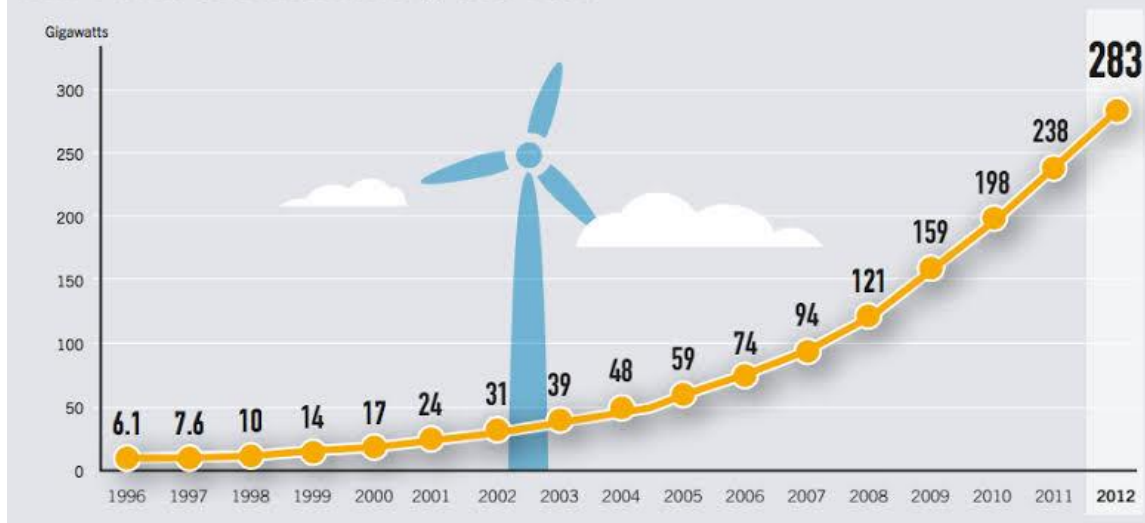
What is e-waste?

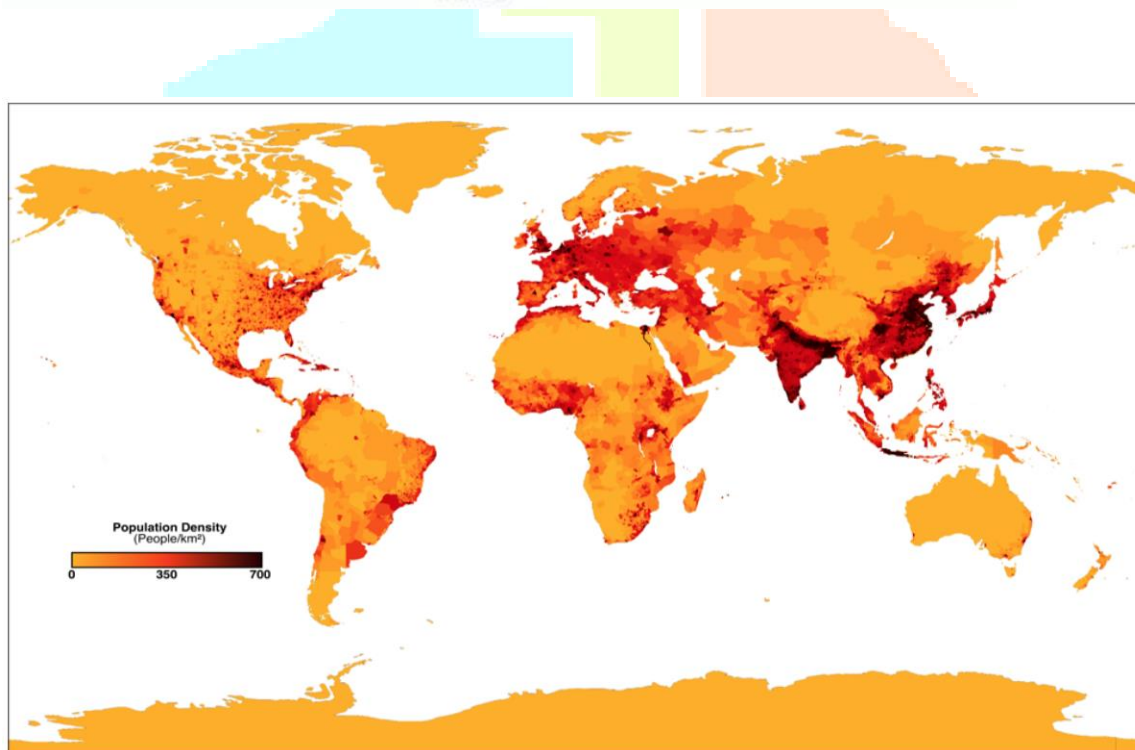
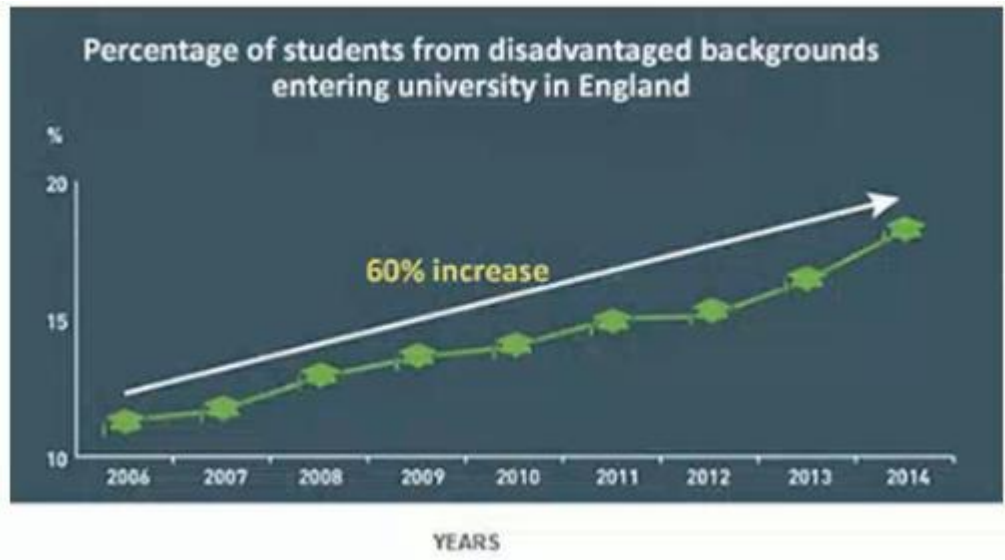


Ice is Never 100% Safe!



WIND POWER GLOBAL CAPACITY, 1996–2012





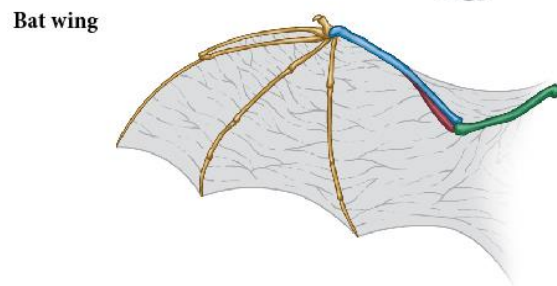
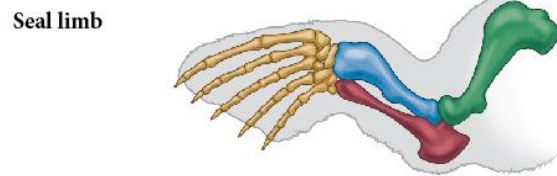
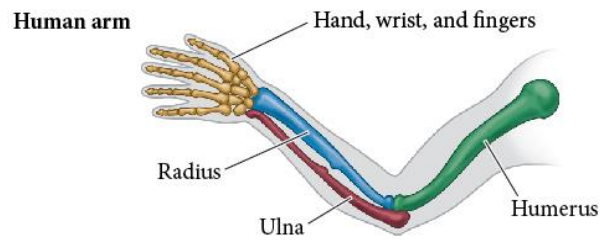


shutterstock

IMAGE ID: 718288759
www.shutterstock.com

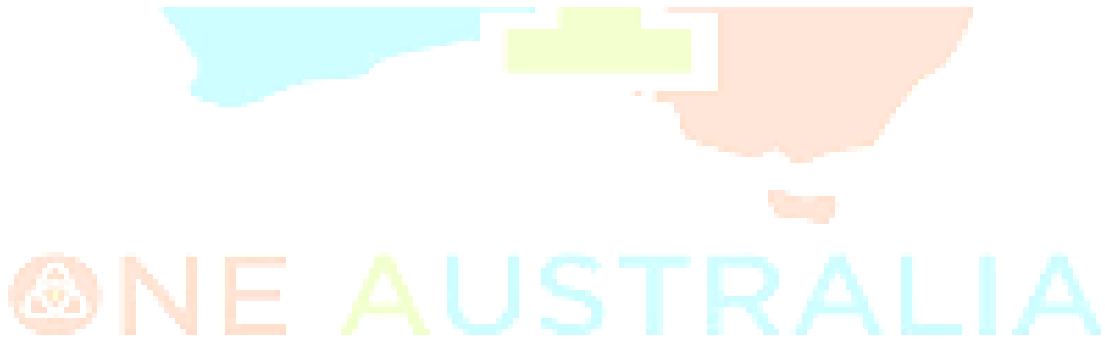
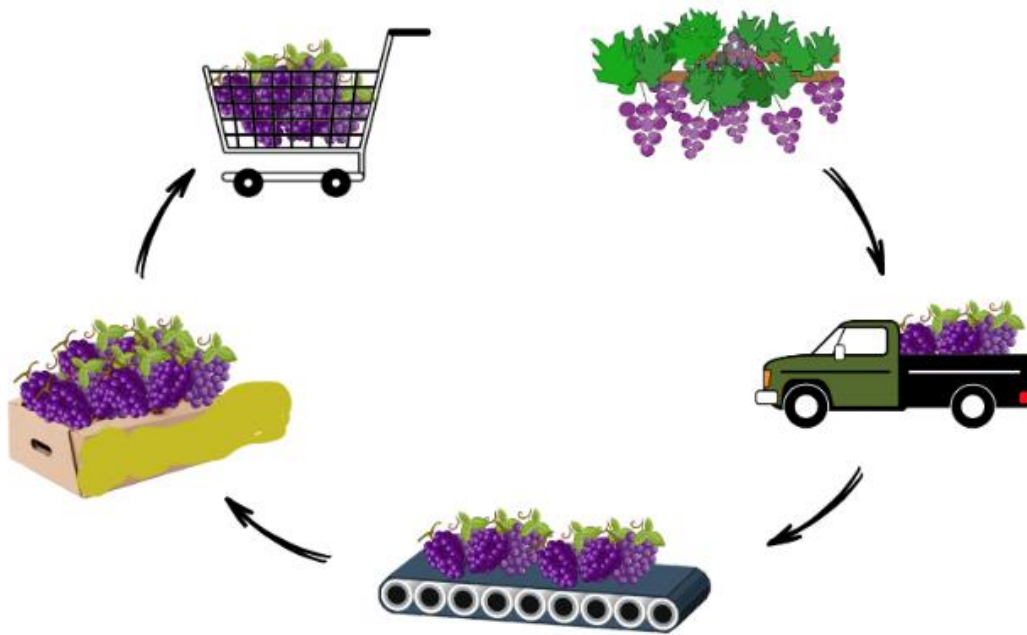


ONE AUSTRALIA



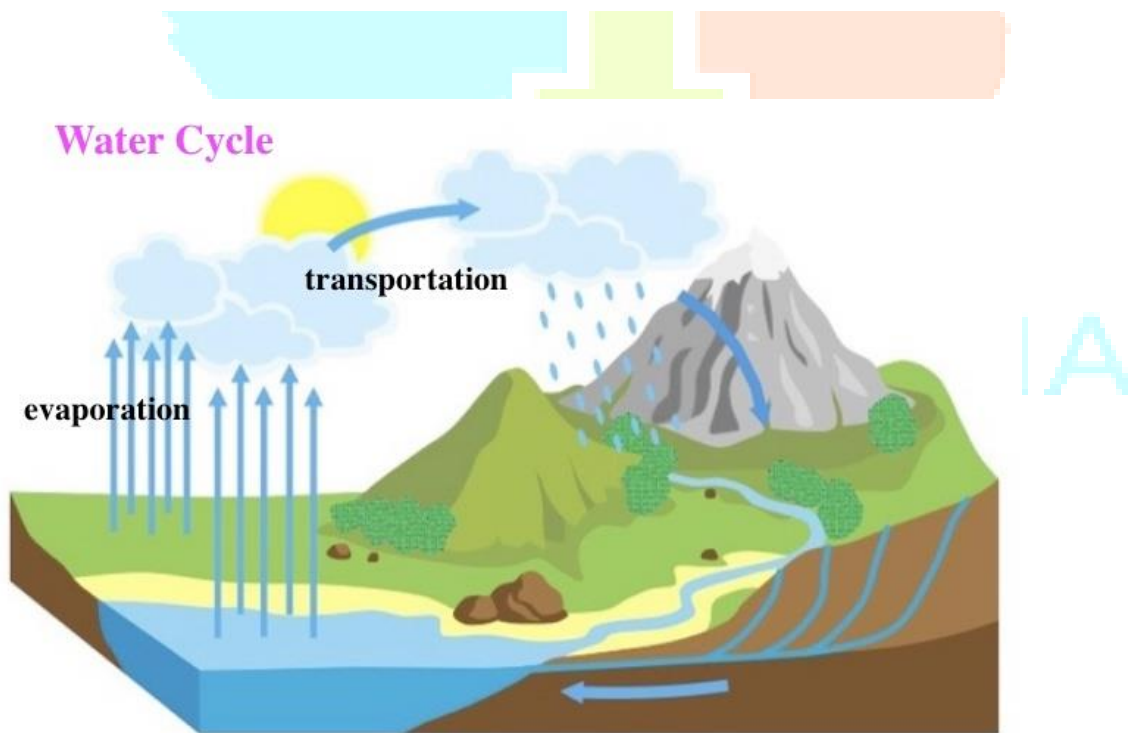
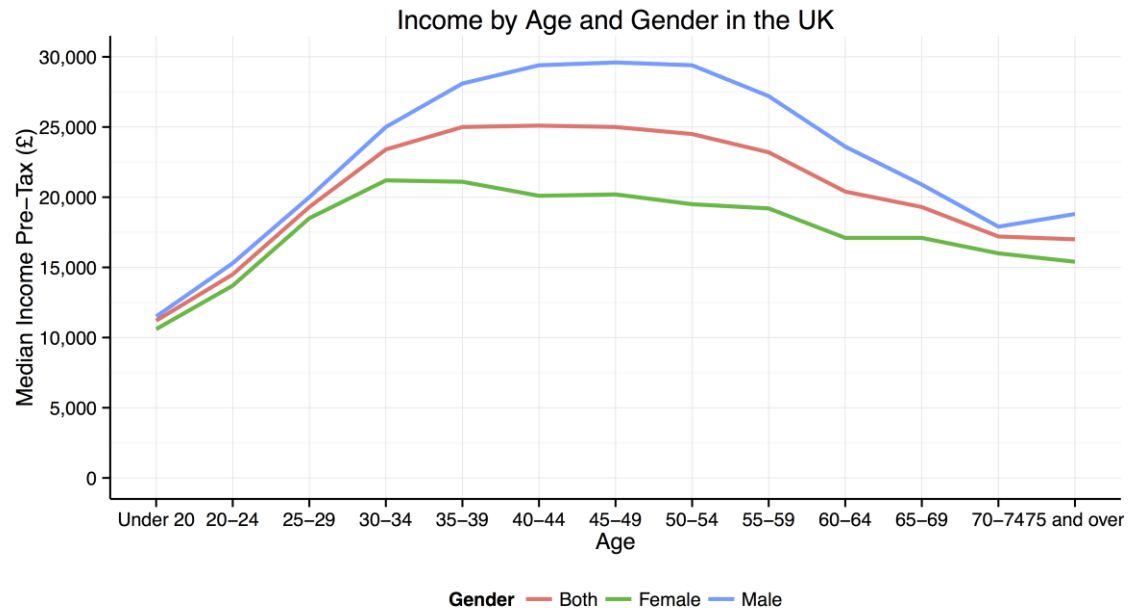
ONE AUSTRALIA

Fruits

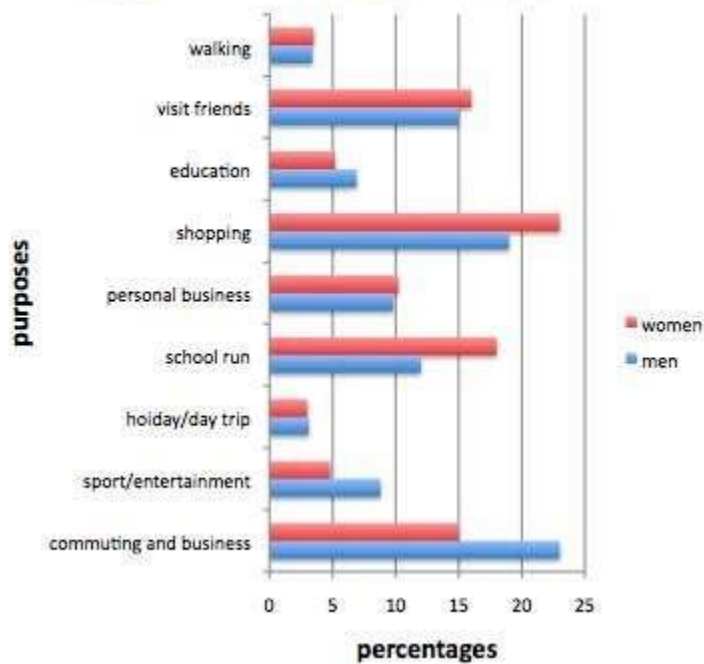




ALIA

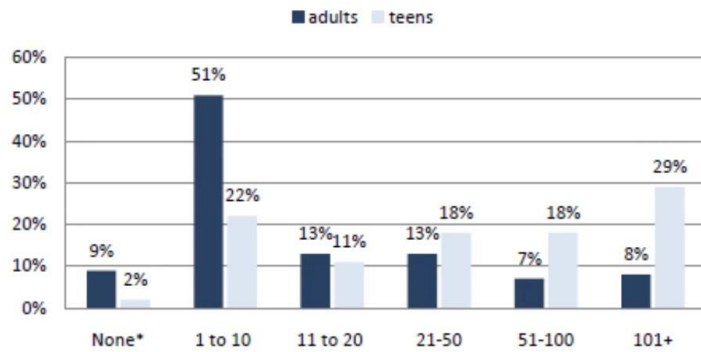


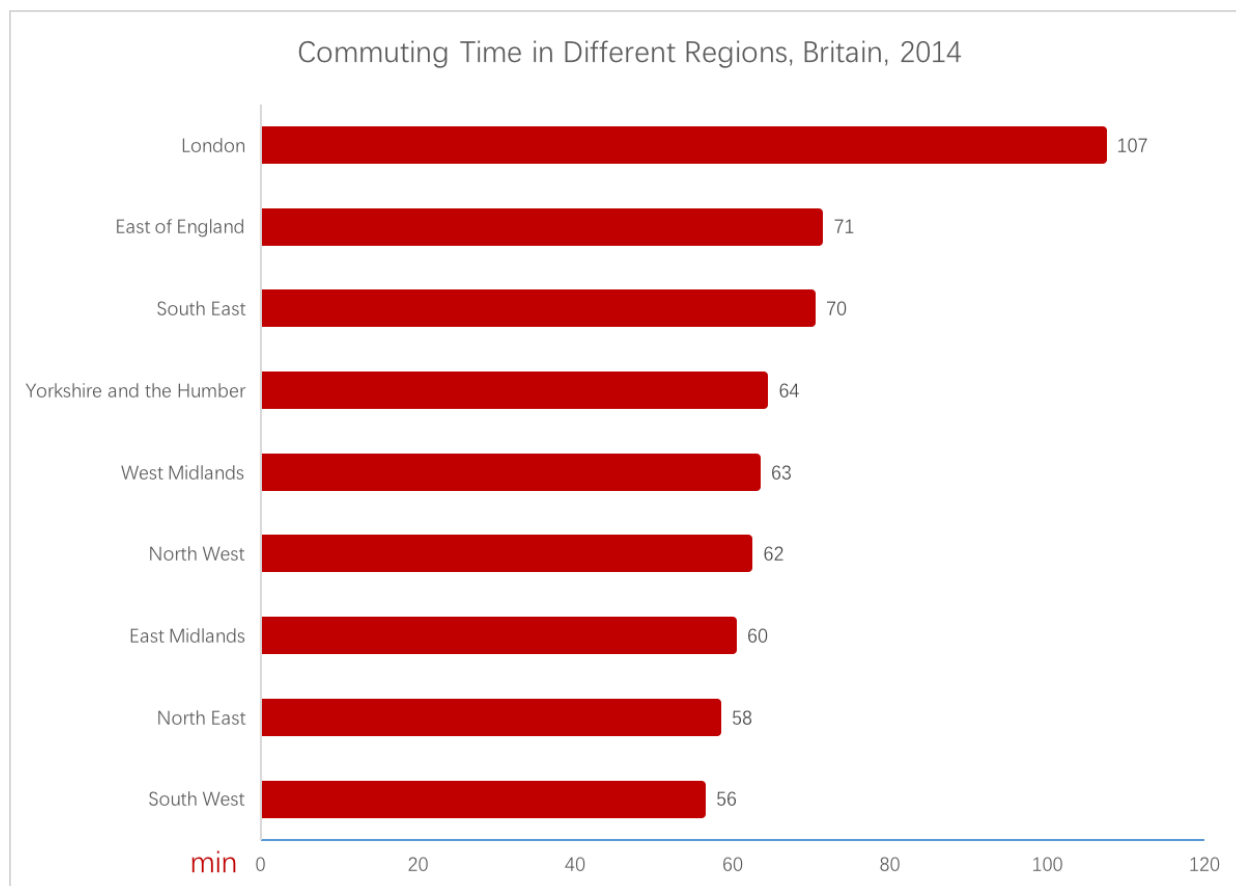
Journeys made by men and women in the United Kingdom in 2006 according to their purpose



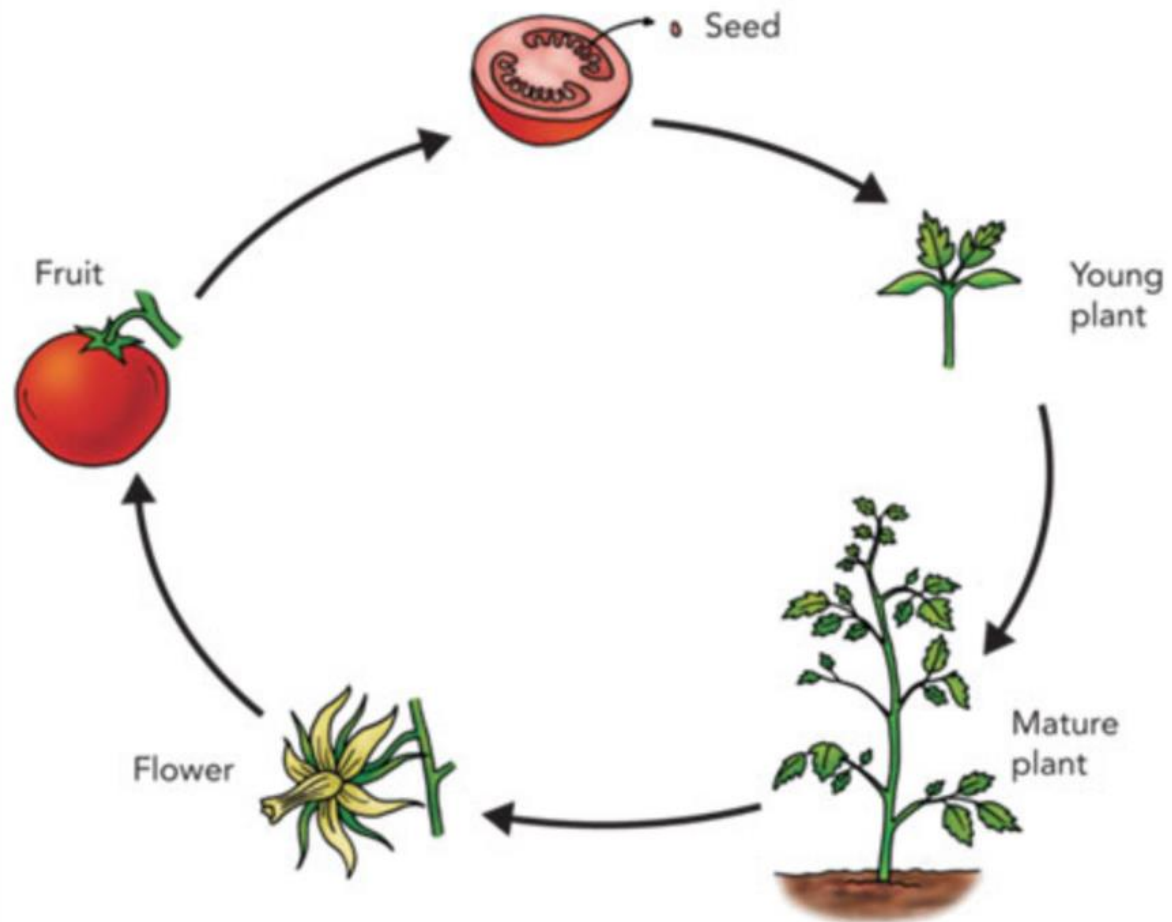
Adults vs. Teens: Number of texts on a typical day

Based on cell phone users who text



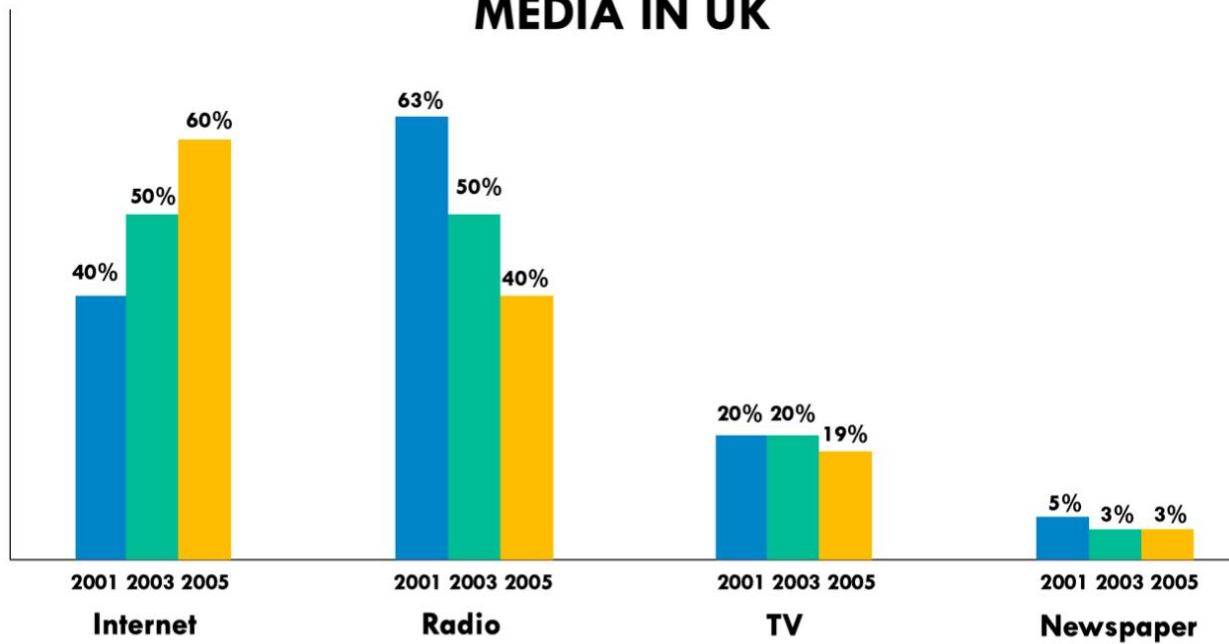


The Life Cycle of a Tomato





MEDIA IN UK



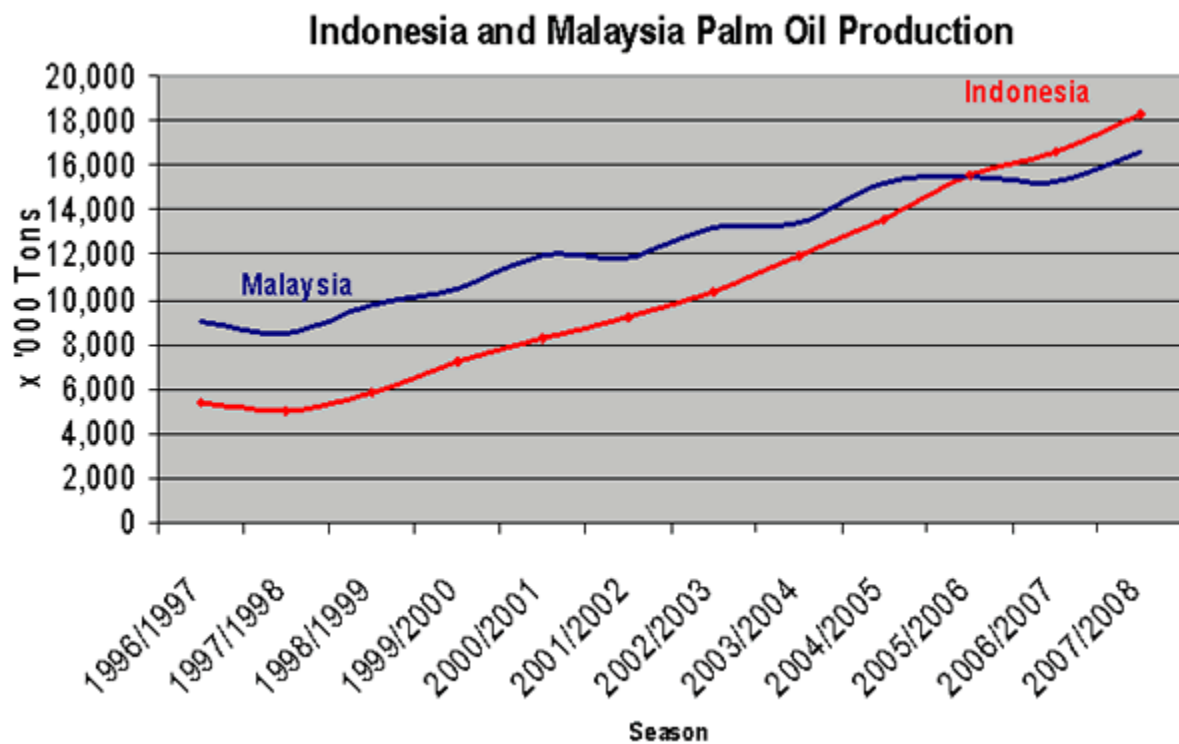
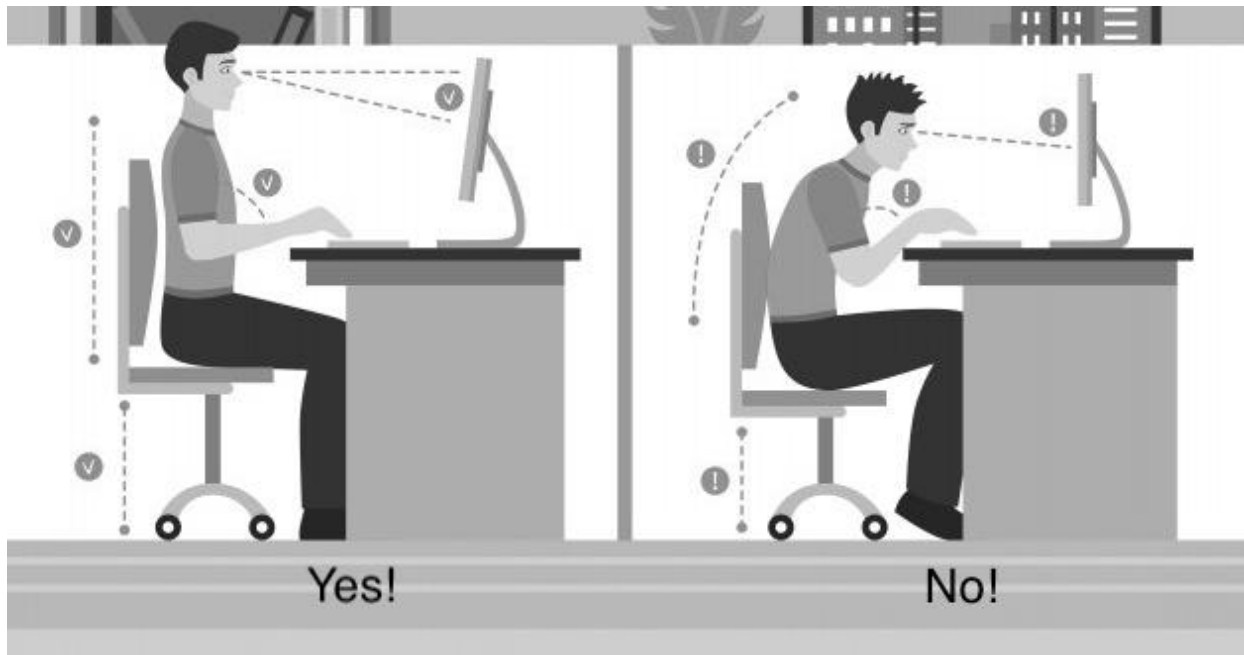
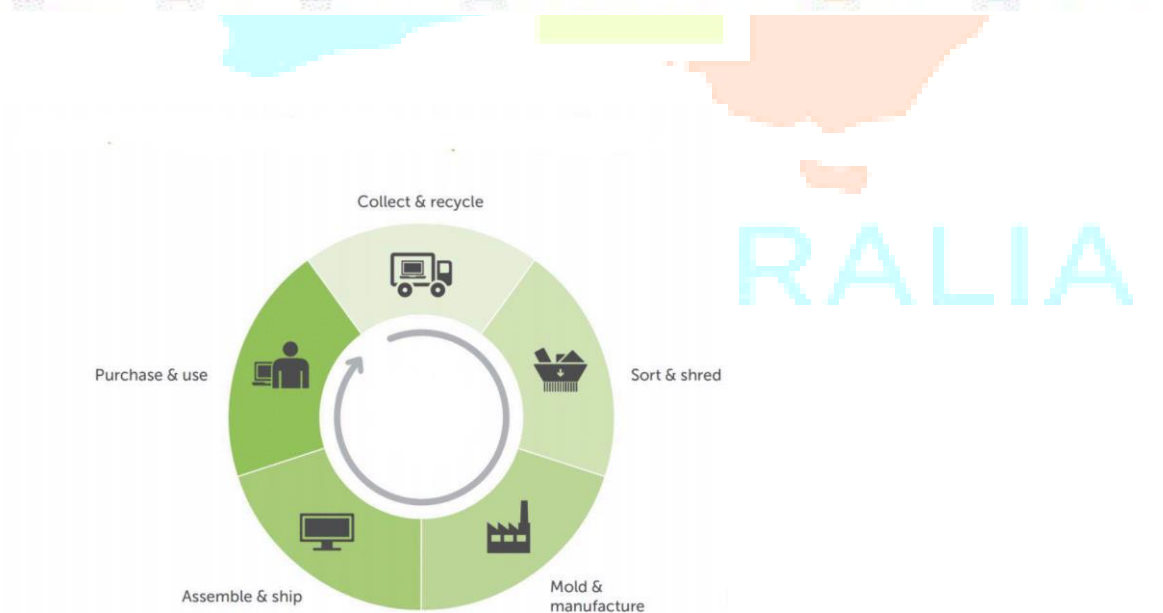
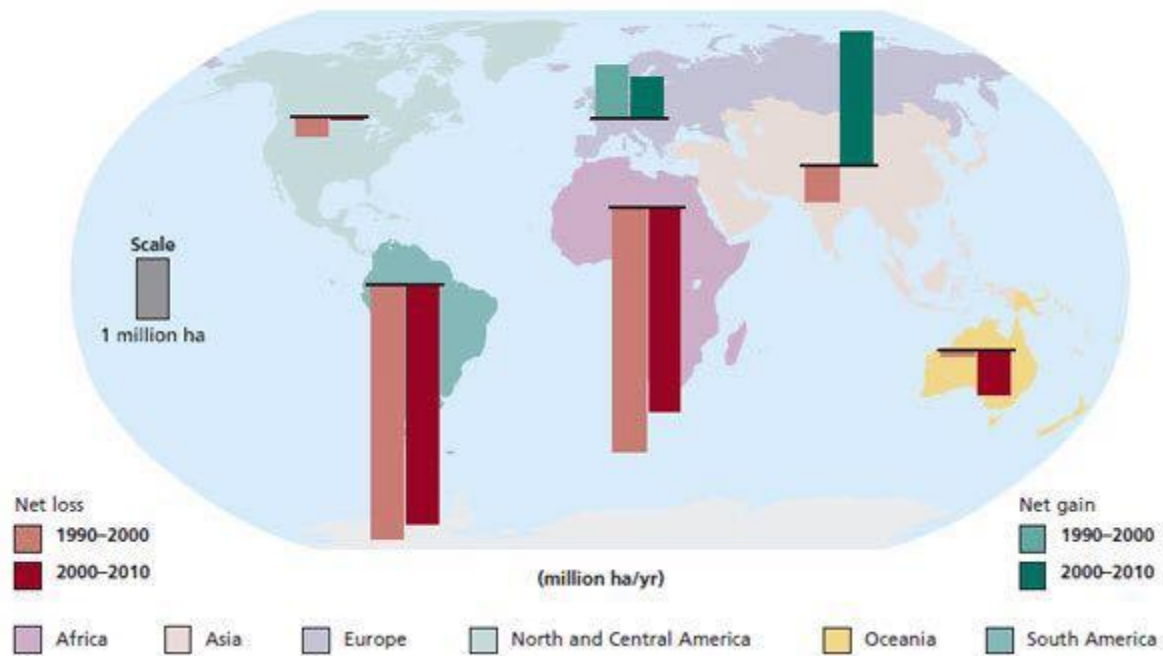
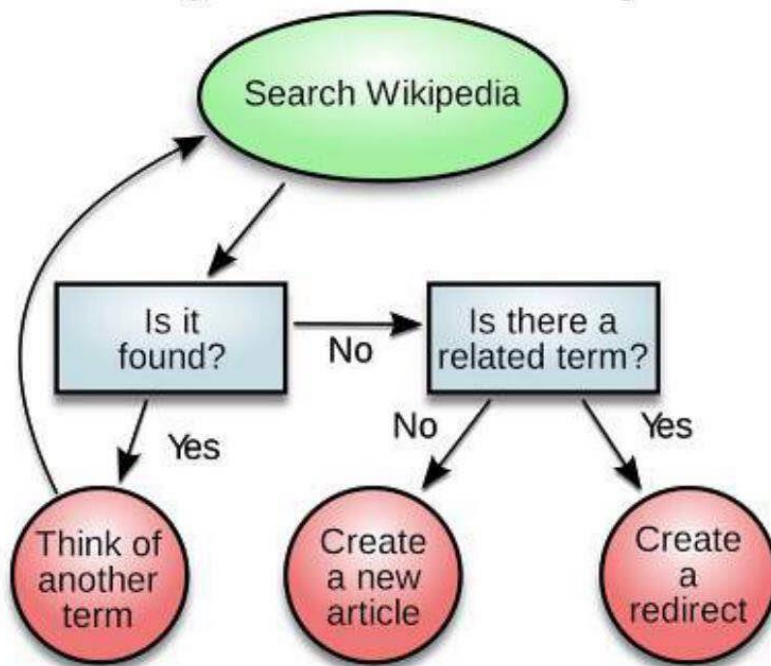


FIGURE 4
Annual change in forest area by region, 1990–2010

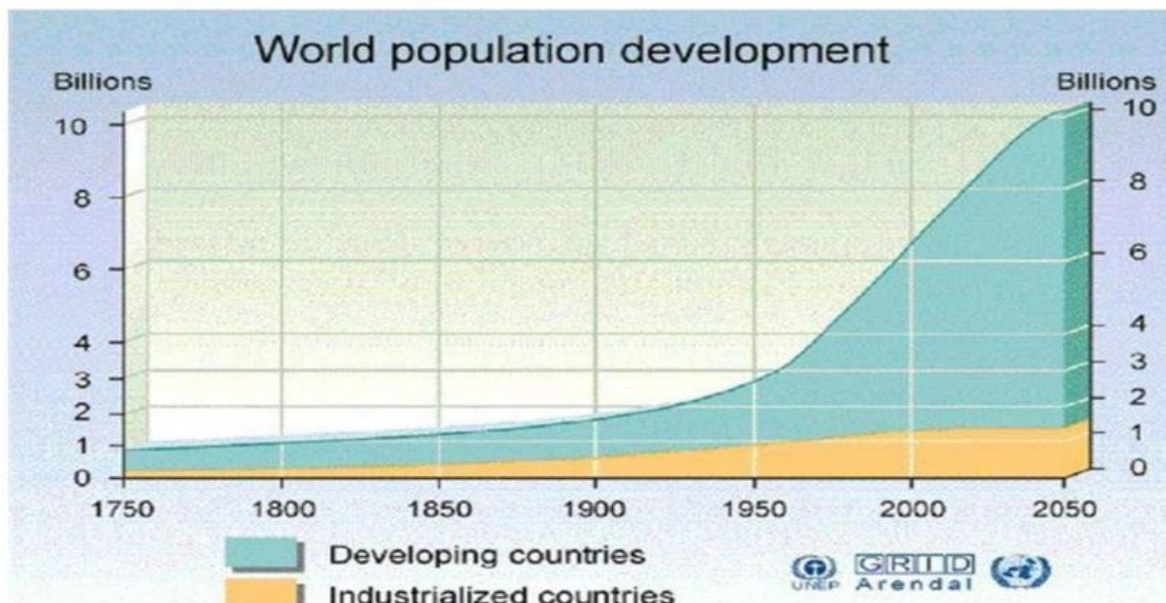


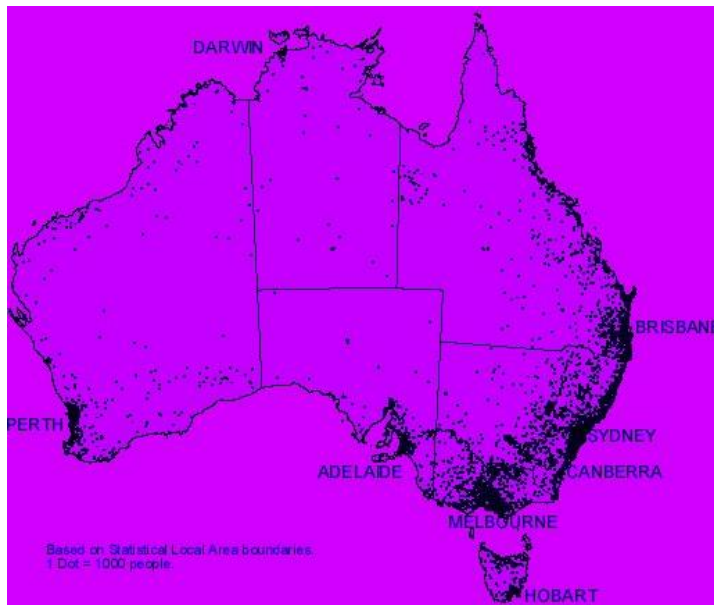
Adding an article to Wikipedia



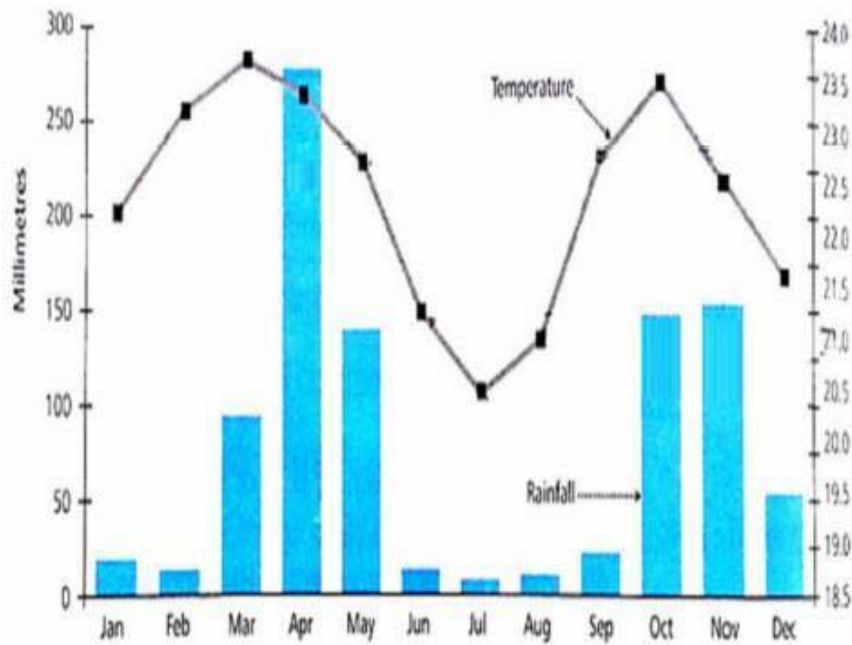
Teaching as a career	
Final year students who want to be a teacher	1%
Graduate students working in teaching	7%
Employed in teaching field	95%

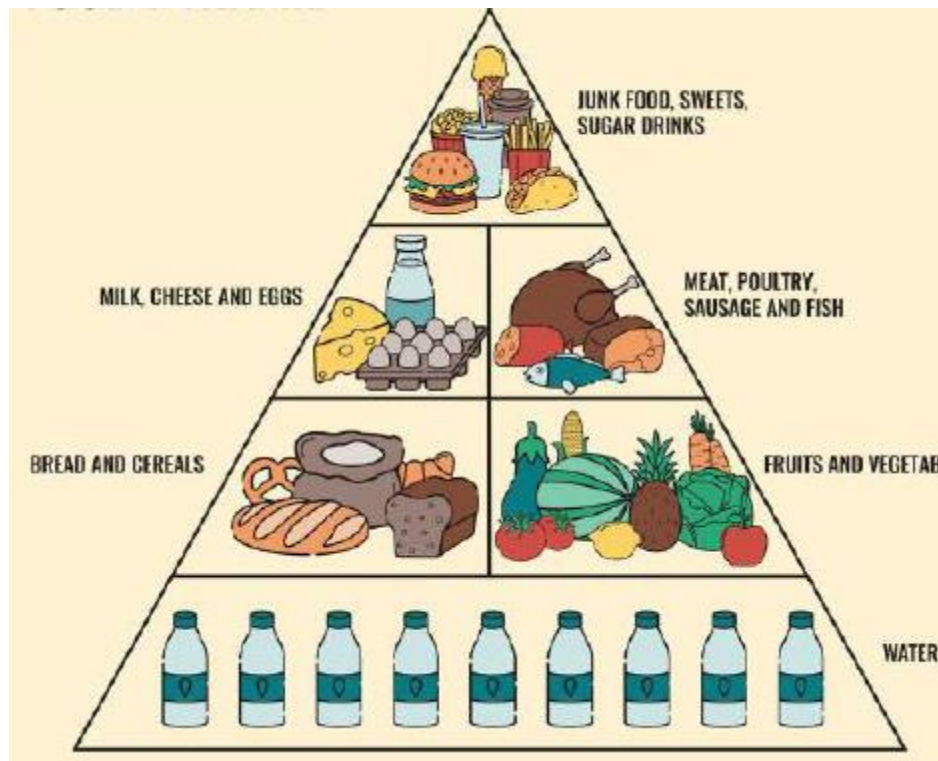
Two examples of “input-process-output”





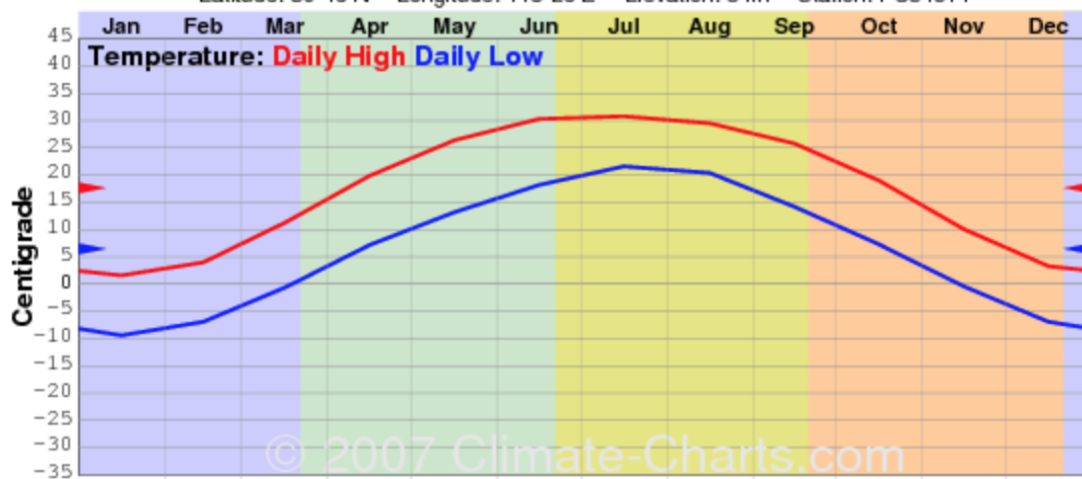
Average monthly rainfall and temperature

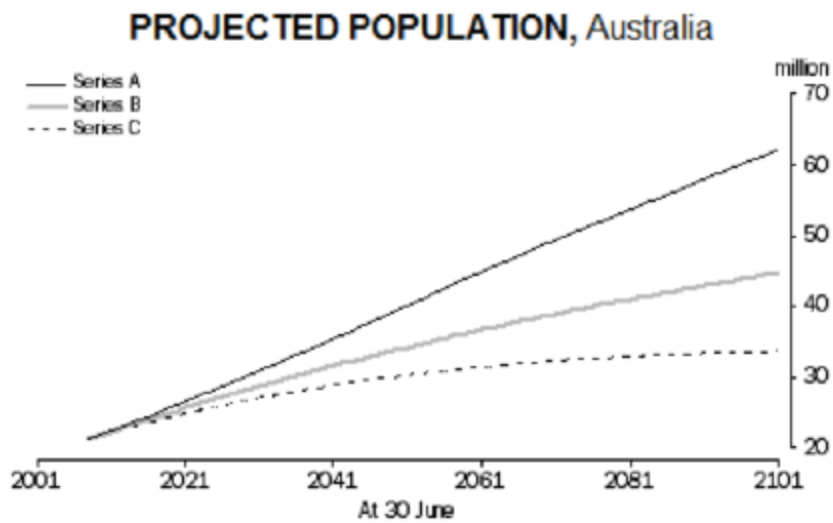




Beijing, China

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





 **ONE AUSTRALIA**



RETELL LECTURE

ONE AUSTRALIA

Venus

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.

City of Rome

But you can see from the relatively crooked and narrow streets of the city of Rome as they look from above today, You can see that again, the city grew in a fairly ad hoc way, as I mentioned. It wasn't planned all at once. It just grew up over time, beginning in the eighth century B.C.. Now this is interesting. Because what we know about the Romans is when they were left to their own devices and they could build the city from scratch, they didn't let it grow in an ad hoc way. They, they structured it in a, in a very care-, very methodical way. That was basically based on military strategy, military planning. The Romans they couldn't have conquered the world without obviously having a masterful military enterprise. And they everywhere they went on their various campaigns, their various military campaigns. They would build, build camps and those camps were always laid out in a very geometric plan along a grid, usually square or rectangular.

Frogs

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.

Genes and Evolution

So the pace, at which human minds have evolved over the last half million years and more recently the last 200,000 years, has been so frighteningly rapid that the evolution of cognitive function and perception can only occur in a small number of genes. If one needed to adapt dozens of genes changes in concert, in order to acquire the penetrating minds that we now have, which our ancestors 5,000 years ago didn't have, the evolution could not have taken place, it could not have occurred so quickly. And for that reason alone, one begins to really suspect that the genetic differences between people who lived 5,000 years ago is evidence that the difference between their cognitive functions and ours is not actually as large. Therefore, a rather small number of genes may be responsible for the powerful minds that humans have which most of us now possess.

Software

The history of software is of course very very new. And the whole IT industry is really only 67 years old which is extraordinary and to be so close to the birth of a major new technology, a major new discipline is quite remarkable given where we got to in those 67 years. And the progression has been not so much a progression as a stampede because Moore's Law, the rapid expansion in the power of computing and the rapid fall of the cost of computing and storage and communications has made it feasible for information technology to move into all sorts of areas of life that were never originally envisaged. What has happened is that there has been as I said a stampede for people to pick the low-hanging fruit. And that is what's guided the development of software and information technology over the past decades and continues to do so with a number of consequences that we will explore.

Red Planet

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.

Bilingual Parents

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.

Biological Forgetting

People forget things every day including experiences, feelings and thoughts. We call this process biological forgetting. Remembering is hard for people, and people try to overcome biological forgetting. Human' memory is not fixed, but it can be reconstructed and shaped by the past. Since ancestors, we have always been trying to improve our memory.

Library Introduction

There are many functional areas and services in the library. You'll see the service desk after entering the library and you can have these services at the service desk. There are computers on each floor, by which you can gain access to the internet and check emails and library catalogues. Follow the orange signs and you will find printers. Then, follow the instructions to use them. Remember to bring student cards. You have to use printers with your card. If necessary, you can ask the staff at the front desk to help you.

Edmund Wilson

Wilson came then from a different world and he became the focal point of a broad mainstream American culture that thought that modern literature and wanted modern literature to be able to be read and appreciated by ordinary people. They were not modernists in an abstract sense and certainly some of them like TS Eliot and Faulkner were too difficult for some of their writings to be read by ordinary people, but this was a world before the division between the brows or between elite or whatever had established itself as part of our consciousness. Wilson was a major player in the successful effort of his generation to establish at the heart of American life and innovative literature that would equal the great cultures of Europe. And he knew that the great cultures of Europe were there he was not a product of a narrow American Studies kind of training at all. He joined a high artistic standard with an openness to all experience and a belief that literature was as much a part of life for everyone as

conversation. He thought that Proust and Joyce and Yeats and Eliot could and should be read by ordinary Americans and helped that to happen. Wilson was a very various man over a period of almost 50 years. He was a dedicated literary journalist, an investigative reporter, a brilliant memoirist and a dedicated journal keeper.

Cloud Formation

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.

King

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.

Globalization

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.

Knee Cracking

The sound of a cracking knee isn't particularly pleasant. But it gets worse when you listen up close. Knee-cracking recording "It does for most people. But for me, it actually just makes me excited." Omer Inan, an electrical engineer at Georgia Tech. "I actually feel like there's some real information in them that can be exploited for the purposes of helping people with rehab." Inan's experience with cracking knees goes back to his days as an undergrad at Stanford, where he threw discus. "If I had a really hard workout, then the next day, of course, I'd be sore, but I'd also sometimes feel this catching or popping or creaking every now and then in my knee." A few years later, he found himself building tiny microphones at a high-end audio company. So when he got to Georgia Tech and heard the Defense Advanced Research Projects Agency, DARPA, wanted better tech for knee injuries, he thought: knee-cracking recording Why not strap tiny microphones to people's knees, to eavesdrop as their legs bend? "What we think it is, is the cartilage and bone rubbing against each other, the surfaces inside the knee rubbing against each other, during those movements." He and a team of physiologists and engineers built a prototype with stretchy athletic tape and a few tiny mics and skin sensors. And preliminary tests on athletes suggest the squishy sounds the device picks up are more erratic, and more irregular, in an injured knee than in a healthy one. Which Inan says might allow patients and doctors to track healing after surgery. Details appear in the IEEE Transactions on Biomedical Engineering. "The primary application we're targeting at first is to give people a decision aid during rehabilitation, following an acute knee injury, to help them understand when they can perform particular activities, and when they can move to different intensities of particular activities." A useful thing to take a crack at.

Food Label

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.

Overfishing

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.

Science and Scientist

Female: Which one are you going to write more in your book, science or scientists? Male: I do want very much to write something about science, actually. So I prefer to scientists. Female: All right. What's interesting in scientists then? Male: Science is just like complex furniture, which is all about evidence. But scientists can tell stories, do researches and propose questions to find what is true. They are like a focal point. They are always in interesting situations. Female: Whether science or scientists your book mainly about, it seems to be rather hard for general readers to understand, doesn't it? Male: I don't think so, really. In fact the book I write is a science fiction, which is related with science but is not strictly scientific. So you don't have to have a PhD degree in physics or other disciplines to understand a science fiction. And loving science is very different from being a scientist, which means fiction writing is not the same as writing scientific journals. When scientists fail, they will question the situation about why they have failed. But as a fiction writer, I don't have to. In my book, you can always see stories about 'happy family'.

Happiness and Social Relations

Happiness comes from frequency and quality of social relation. The higher the frequency is, the more happiness relations with friends and family and others produce. It is not sure why social relation is correlated with happiness. But there's evidence that when people feel more satisfied with their social relations, they will feel happier, in turn, when people feel happier, they will get more satisfied with social relations. Happy people tend to be social more with friends and have more interaction between family. Some people wonder if their social activities make them happier or their happy personalities drive them to be social more with their friends and families.

Truth and Rhetoric

But Aristotle says the reason we need rhetoric is we have to be able to use it. To use rhetoric influence the ramble, we try to get them to understand truth. Truth is suggest... is different than XX Rhetoric is the dressing, is the body, right? Truth is the spirit, is the soul, is abstract. It doesn't have a body. It's not particular. If you wanna get somebody to the truth, you might have to use some kind of tricks. Right? Because most of people are not sound and can see the truth. That's what we think. Most people are rambles. Really. Only the educated be erudite are actually capable of seeing the truth. If you wanna get the general mass there, you may have to do a little bit. So Aristotle that is rhetoric. Rhetoric is

something that is used to influence people. Right? And it's a kind of mentally promised a logic.

Robot and Human

Why is it difficult to make a robot like a human being? Why cannot robots finish the work easily like human beings? For some tasks, it is easy and simple for humans to complete, but it is very difficult to ask a robot to do what we want because humans and robots have different recognition functions. For example, considering the insights, it is hard for robots to recognize colors because they do not have sensory mechanisms. Artificial intelligence scientists have to devise a sensor that is implanted to robots to enable them to recognize different colors. The sensor has a camera on it to capture pixels, and then will translate the pixels into an image, which is not as easy as expected. This process is very complex. The translation of every pixel to accurate things could be difficult, especially color differentiation which needs complicated sensors to fulfil. So the improvement of the sensor is necessary. In conclusion, there is no comparison between humans and robots.

Survey

Let's say if I'm asking which source do you often use to get information. Newspaper? Radio? And the survey shows 62% of the people chose internet. You might be thinking I am going to say, how important the internet is, or how quickly it has changed the world for a few years. But what if I tell you this survey is conducted on the website global and mail.com? Our answer will be different. Because the people who did this survey on a website must be frequent users of internet. This sample is a biased sample. So we have to pay attention to how a survey is conducted.

Linguistic Training

I think with our linguistic training we also get all this invisible training to be authorities, to be the people who know. It is part of that process that you come out as a world authority on your chosen subject. But when we move into working with communities, we have to recognise that the communities have to be the authority in their language. Actually, a woman in the class I'm teaching at Sydney at the moment, a career woman, expressed this very nicely, although she was talking about something else, she was distinguishing expertise from authority. And certainly linguists, because of our training we do, have expertise in certain very narrow areas of language, but we don't have the authority over what to do with that knowledge or what to do with other knowledge that the community produces. I guess for me the bottom line is languages are lost because of the dominance of one people over another. That's not rocket science, it's not hard to work that out. But then what that means is if in working with language revival we continue to hold the authority, we actually haven't done anything towards undoing how languages are lost in the first place, so in a sense the languages are still lost if the authority is still lost.

Governmental Blogging

We normally see blogging as a two-way interaction, in which the blogger/author creates the content and

the readers interact with or challenge the author. But the case will be much difficult when it comes to governments, such as the White House. Because people will become coarser and ruder online towards their governments, especially in comment areas. Thus, governments' blogs may go wild and chaotic. And then governments will have to administrate the comments. Once the government starts to impose harsh administration on comment areas, citizens may find the government manipulating what should be said and what should be shown, which contradicts the original intention.

Advanced Machine

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.

Dissociation of Personalities

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.

Visual Description

The comics I show you with lots of people chatting around in a room is a form of description. We use different kinds of methods to describe a situation. Sometimes we have to use visual description, particularly when we do not witness the scenario. I was born during the Second World War and my hometown is X, for example when I asked my mother about the war, I always ask her you have mentioned this or that when you talked to me when asked her about the shelter, I asked her what the shelter looks like and when did you go to the shelter. From her response I could get more visual evidence as I can to write my book.

Practice

Deliberate practice takes time and people also need to find and solve problems and mistakes during it.

To be a high performing solo musician for the violin you also have to spend several dozen hundreds of hours in solitary practice. When it comes to other things, for example, studying geometry, it is still the case. During practice you should identify your weakness, focus on it, and carry out further deliberate practice to demonstrate how important deliberate practice is. Even for talents, they generally need spend ten years to achieve the high international level of recognition. So there is no need for average people to be ashamed to practice.

Ship

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.

Soot Emission

Sometimes it's the little things that can make big things happen. Fleas and the plague, atoms and nuclear bombs. Diminutive leaders in world history. Soot is one of these little things. Soot also known as black carbon is released when you burn dung, coal, diesel fuel and wood. From Los Angeles to Mumbai, soot causes respiratory illnesses like lung cancer and asthma and contributes to one point six million premature deaths every year. Mostly among the poor. And it gets worse. Atmospheric currents carry soot thousands of miles from where it is produced, to the Himalayas and the Arctic. Black carbon being black, absorbs sunlight, so even a little soot on snow makes it melt faster. And when snow melts global sea levels rise, threatening our freshwater indigenous communities and polar bears who hunt on the Arctic ice. Climate Change has been a big thing for a while and carbon dioxide has been its main cause. Scientists estimate that soot causes twenty five percent of human-caused global warming. It's the second leading cause of Arctic warming after carbon dioxide. Let's not underestimate the impact of this tiny particle. But there's good news, reducing black carbon may be the fastest way to slow global warming. Buy time for the Arctic. Yes even more so than changing a light bulb. Since black carbon only stays in the atmosphere for a couple of weeks, reducing it will produce results immediately. Of course, reducing soot alone won't solve global warming, but solving our soot problem now will help buy time for the Arctic and allow us to deal with the bigger problem of carbon dioxide. We have the cleaner industries, cook stoves, and diesel now we have to use them. In developed nations, we've significantly reduced our black carbon, but we still have much more to do. We need to tighten our standards at home and invest in cleaner technologies in developing nations. In a world going on seven billion people, you might feel rather little yourself. But if you urge the US government and the European Union to take the lead on black carbon reduction, you can make a big difference.

Salary Types

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

Animal Behavior

We can ask 2 fundamental questions about animal behavior they referred to as proximate and ultimate. Proximate questions are those concerned with the mechanisms that bring about behavior. Ultimate questions are those concerned with the evolution of behavior. We can divide the proximate and ultimate into 2 sub-questions. For proximate, how does behavior develop and secondly what causes the behavior. For ultimate, you can ask how did the behavior evolve and secondly what is the adaptive of significance of the behavior. What's its purpose? Together these comprise what are called Tinbergen's 4 questions about animal behavior. Niko Tinbergen was one of the founding fathers of the study of the animal behaviors. These questions represent different ways of studying animal behavior and understanding the difference between those 4 questions are fundamental to understanding behavior and indeed the whole of biology. How do we study animal behavior? Well that depends on the type of question we're hoping to answer.

Community Service

Community service is an important component of education here at our university. We encourage all

students to volunteer for at least one community activity before they graduate. A new community program called "One On One" helps elementary students who've fallen behind. Your education majors might be especially interested in it because it offers the opportunity to do some teaching, that is, tutoring in math and English. You'd have to volunteer two hours a week for one semester. You can choose to help a child with math, English, or both. Half-hour lessons are fine, so you could do a half hour of each subject two days a week. Professor Dodge will act as a mentor to the tutors. He'll be available to help you with lesson plans or to offer suggestions for activities. He has office hours every Tuesday and Thursday afternoon. You can sign up for the program with him and begin the tutoring next week. I'm sure you'll enjoy this community service and you'll gain valuable experience at the same time. It looks good on your resume, too, showing that you've had experience with children and that you care about your community. If you'd like to sign up, or if you have any questions, stop by Professor Dodge's office this week.

Australia's Export

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.

Saturn Rings

In the solar system, many planets have rings. Saturn's rings are the most spectacular planetary ring. Consisting of countless particles whose diameters range from microns to meters, these rings orbit the Saturn, in 1610, Galileo was the first man who spotted Saturn's rings. With his 20-power telescope, Galileo might have mistaken Saturn's gaseous ring to surmise that the Saturn system was formed of one planet with two moons as satellites. In 1675, Giovanni Cassini determined that Saturn's "ring" was actually composed of sub-rings with gaps among them. So the number of Saturn's rings are more than 10. Other planets like Venus, Jupiter, Neptune and Uranus also have rings but not as many as Saturn have. Finally, Scientists have dedicated themselves to study the formation of Saturn rings and claim that these rings are formed by gravitational fields.

Flipping Coin

Flipping a coin may not be the fairest way to settle disputes. About a decade ago, statistician Persi Diaconis started to wonder if the outcome of a coin flip really is just a matter of chance. He had Harvard University engineers build him a mechanical coin flipper. Diaconis, now at Stanford University, found that if a coin is launched exactly the same way, it lands exactly the same way. The randomness in a coin toss, it appears, is introduced by sloppy humans. Each human-generated flip has a different height and speed, and is caught at a different angle, giving different outcomes. But using high speed cameras and equations, Diaconis and colleagues have now found that even though humans are largely unpredictable coin flippers, there's still a bias built in, if a coin starts out heads, it ends up heads when caught more often than it does tails. NPR's David Kestenbaum reports.

Pavlov Experiment

During this time my goals are going to be to talk about the phenomenon that we may share in part 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 starts 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 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.

Superman

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.

Shy Fish

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."

Music and Wellbeing

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

Biology

Welcome to your very first tutorial in biology. Now, in this video series what I want to do is I want to talk to you guys about many different topics concerning biology. For example, I want to talk to you guys about DNA and genetics in cells, in bacteria, in life and a whole bunch of interesting stuff. But since this is the very first video, I think what we should do in this video is just stick with the very basics. And the first thing I want to do is talk to you guys about what is biology. So, let's go ahead and answer that question. And the definition of biology is this: the study of life in living organisms. All right, that makes sense up to a certain point up until organisms because you may have heard of organisms before. And you may have your own definition but the scientific definition of an organism is a living thing. Well, that's easy. We know what living things are. I'm a living thing, plants, grass is a living thing. My puppy named old Dan, cutest puppy ever, by the way, is a living thing but whenever we talk about living things. Believe it or not, things get rid of complicated because then you have to ask yourself 'what is life'. Well, of course, if you ask your grandma or your best friend or even if you ask a philosopher 'what is life',

everyone is going to give you kind of a different definition of their outlook on life. However, whenever scientist and biologists were first deciding, you know what, what is life? That's the problem that they had everyone had their own separate definition of life itself. So, what they need to do before biology was even invented, which is, of course, the study of life is scientists needed to agree on the definition of life.

Early Robot

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.

Reconstruction of Paris

Haussmann's renovation of Paris was a vast public works program commissioned by Emperor Napoleon III and directed by his prefect of the Seine, Georges-Eugene Haussmann, between 1853 and 1870. It included the demolition of crowded and unhealthy medieval neighborhoods, the building of wide avenues, parks and squares, the annexation of the suburbs surrounding Paris, and the construction of new sewers, fountains and aqueducts. Haussmann's work met with fierce opposition, and he was finally dismissed by Napoleon III in 1870; but work on his projects continued until 1927. The street plan and distinctive appearance of the center of Paris today is largely the result of Haussmann's renovation. In the middle of the nineteenth century, the center of Paris was overcrowded, dark, dangerous, and unhealthy. In 1845 the French social reformer Victor Considerant wrote "Paris is an immense workshop of putrefaction, where misery, pestilence and sickness work in concert, where sunlight and air rarely penetrate. Paris is a terrible place where plants shrivel and perish, and where, of seven small infants, four die during the course of the year." The street plan on the Tie de la Cite and in the neighborhood called the "quartier des Arcis", between the Louvre and the "Hotel de Ville" (City Hall), had changed little since the Middle Ages. The population density in these neighborhoods was extremely high, compared with the rest of Paris; in the neighborhood of the Champs-Elysees, there was one resident for every 186 square meters; in the neighborhoods of Arc is and Saint- Avoye, in the present Third Arrondissement, there was one inhabitant for every three square meters. In 1840, a doctor described one building in the tie de la Cite where a single room five meters squares on the fourth floor was occupied by twenty-three people, both adults and children. In these conditions, disease spread very quickly. Cholera epidemics ravaged the city in 1832 and 1848. In the epidemic of 1848, five percent of the inhabitants of these two neighborhoods died. Traffic circulation was another major problem. The

widest streets in these two neighborhoods were only five meters wide; the narrowest were only one or two meters wide. Wagons, carriages and carts could barely move through the streets. The center of the city was also a cradle of discontent and revolution; between 1830 and 1848, seven armed uprisings and revolts had broken out in the centre of Paris, particularly along the Faubourg Saint-Antoine, around the Hotel de Vi Ile, and around Montagne Sainte Genevive on the left bank. The residents of these neighborhoods had taken up paving stones and blocked the narrow streets with barricades, and had to be dislodged by the army.

Night Sky Darkness

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.

Chest X-Ray

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.

Marshmallow Test

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.

Extinction of Language

A language dies when the last person who speaks it dies. But you know, sometimes people say it dies when the second-last person who speaks it dies, because the last person has nobody to talk to. Well, of course, languages have come and gone throughout history as communities have come and gone. But what's happening now is something really quite extraordinary. Well, there are about 6000 languages in the world at the moment, more or less. Nobody knows the exact number. Of these, about half of them are so seriously in danger, are likely to die out in the course of present century. Now the present century is a hundred years, half is 3000 languages. So, that means one language is dying out somewhere in the world average every two weeks. There are all kinds of reasons why languages die; one is physical reason when people are affected by famine, disease and earthquake. Another is genocide, when some countries deliberately stamp out a small language. The main reason is globalization. That is, some huge languages in the world, like English, Arabic, Spanish and French, and these are like steam rollers crushing the smaller languages they find in their path. A great deal can be done to preserve endangered language. The first thing is that the people themselves must want the language to be preserved. That's very important. The second thing is that the powers-that-be must want the language to be preserved. They must be respect for the minority languages in their care. The third thing has to be there, of course, is cash. It costs quite a lot of money to preserve an endangered language. Think about it, You have to train the teachers, you have to write books for the children. And all sorts of things. It doesn't cost a extraordinary amount money, but it does cost a bit. So without money, endangered languages don't have a positive future.

Bomb Calorimeter

This is a bomb calorimeter; this is the actual piece of equipment that researchers used to calculate the energy content of either biodiesel or maybe even the potato chips that you had for lunch today. When they calculate the amount of energy. They're going to calculate it in heat units which would either be joules or calories, I want you to look inside the bomb calorimeter inside here, you can see that there's a silver bucket water goes all in here and this is actually the bomb is the smaller silver cylinder what you do is put your fuel sample in there then these two electrodes are connected to the bomb. These provide the spark that will ignite your sample when your sample burns or combust that gives off energy. So how is the energy collected or how did a scientist figure out how much energy is being given off. Well, it's a closed system, there's a lid here that goes on top of this calorimeter and what's in here in the lid is a stirrer. The stir is going to stir the water. That's in this big pool here so that the heat given off from the sample is going to warm the water in a uniform way. This is the temperature probe, this goes down in the water also and measures the change in temperature because as the sample is burned, it will give off heat and the temperature the water will increase. So the lid goes on the sample is prepared. The last thing that you need to make a combustion reaction happen is oxygen and at some point during the process, some oxygen is added by a tank. That's connected to the calorimeter here. So we are going to burn a sample of the biodiesel that you've prepared and get some feedback on the energy content of it. You'll be able to use this to compare it to petroleum-based fuels like octane.

Licking and Grooming

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

Brain

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.

Infinite Monkey Theorem

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.

Freud

For better or worse, we live in a world profoundly affected by Sigmund Freud. If I had to ask you to name a famous psychologist, the answer of most of you would be Freud. He was the most famous psychologist ever and he had a profound influence on the 20th and 21st century. Some biographical information: he was born in the 1850s. He spent most of his life in Vienna, Austria, and, but he died in London and he escaped to London soon after retreating there at the beginning of World War Two as the Nazis began to occupy where he lived. He was one of the most famous scholars ever but he was not known for any single discovery. Instead, he was known for the development of an encompassing theory of mind, one that he developed over the span of many decades. He was in his time extremely well known, a celebrity recognized on the street, and throughout his life. He was a man of extraordinary

energy and productivity, in part because he was a very serious cocaine addict, but also just in general. He was just a high-energy sort of person.

Historic Library

Indeed, the library. We've all been to a historic library. We've all enjoyed the smell of a historic library. But what is it? And what does it mean? When we've recently, when at UCL Center for Sustainable Heritage, we've recently been asked to assess the environment at another historical library at Saint Paul's Cathedral, the Wren library, an incredible place. And it has a such an intensive smell of old books, and we were also asked for the first time really I was actually taken aback by the brief, we were asked what you do please preserve the smell. It is so important to our audience. It is so important how people perceive the library. So, that is, that was quite an important message in our research. And indeed the smell is an important way of how we communicate with the environment. This piece of research was done by an advertising company because advertisers are so interested in how we, how we interact with each other and the environment. And we see that the majority of people use sight obviously to interact with the environment, but on the second place, we see the smell is also very, very important.

Skoog

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

Britain's Economy

Across the world people have been watching the choice that Britain has made. I would reassure those markets and investors that Britain's economy is fundamentally strong and I would also reassure Britons living in European countries and European citizens living here that there will be no immediate changes in your circumstances. There will be no initial change in the way our people can travel, in the way our goods can move or the way our services can be sold. We must now prepare for a negotiation with the

European Union. This will need to involve the full engagement of the Scottish, Welsh and Northern Ireland governments to ensure that the interests of all parts of our United Kingdom are protected and advanced. But above all this will require strong, determined and committed leadership. I'm very proud and very honoured to have been Prime Minister of this country for six years. I believe we've made great steps, with more people in work than ever before in our history, with reforms to welfare and education, increasing people's life chances, building a bigger and stronger society, keeping our promises to the poorest people in the world and enabling those who love each other to get married whatever their sexuality, but above all restoring Britain's economic strength.

Air Pollution

In today's lecture I'm going to talk about changes in air pollution since the middle of the last century and what has created these changes. So, um-by the 1950s, air pollution was very visible with frequent thick black fogs known as 'smogs' in many large cities around the world. The main source of this pollution was from factories and it caused severe health problems. For example, a particularly severe smog in London in 1952 caused over four thousand deaths. Obviously something had to be done and in 1956 a Clean Air Act was introduced in Britain. This addressed the pollution from factories and the smogs soon disappeared. However, as you know, these days air pollution is still a big issue. The main difference between now and the 1950s is that you can't see it - it's invisible. Also, the main source of pollution now is from cars and lorries, and although these don't produce visible signs, this air pollution is still a significant risk to health. And one of the key factors in the rise of this type of pollution is that we have all become much more vehicle-dependent. There are far more cars and lorries, trains and planes than in the 1950s and this is now the main source of air pollution around the world.

ONE AUSTRALIA



ANSWER SHORT QUESTIONS



What does the color green help for?

Answer: Sight / eyesight

What do we call a young dog?

Answer: Puppy

What do we call the chair a king or a queen sits in?

Answer: Throne

What is the upper part of a leg?

Answer: Thigh

What do we call the bags that contain possessions and people take with when traveling?

Answer: Luggage / baggage / suitcase

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

Answer: Uncle

What shows how many people can be in a place like an apartment?

Answer: Capacity

What do we call a person who writes biographies of others?

Answer: Biographer

What do we call a document sent by email?

Answer: Attachment

What is the top surface inside the room?

Answer: Ceiling

Where do marine animals live?

Answer: Sea / ocean

What do you call your cousin's father?

Answer: Uncle

What is the opposite of 'guilty'?

Answer: Innocent

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 'TV' stand for?

Answer: Television

What do we call a room just below the roof of a house, often used for storing things?

Answer: Attic / loft

What do we describe an event which happens once every year?

Answer: Annual

What do we call a group of mountains such as the Himalayas?

Answer: range

In winter, what activities do people usually do on Snow Mountains by standing on long, thin boards?

Answer: skiing

What is the adjective opposite to 'rural'?

Answer: urban

What is the star that gives heat and light to the Earth?

Answer: sun

What is the main building of a large company or an organization?

Answer: headquarters

Where do passengers wait for airplanes?

Answer: terminal / airport

What will you hear after a flash of lightning?

Answer: thunder

What do we call a baby cat?

Answer: Kitten / kitty

What is the horizontal line that separates the globe into two halves?

Answer: equator

What is the nominal form of the wide?

Answer: width

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

Answer: dentist

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

Answer: patent

What is at the top of an eyebrow?

Answer: forehead

What thing do postgraduate students have that undergraduate students don't ?

Answer: bachelor degree

What do people hold overhead when it is raining?

Answer: umbrella

What is the process where the color becomes lighter and lighter when exposed to sunlight for a long time?

Answer: fade

How do you call someone with no hair?

Answer: bald

What do we call the ship that runs underwater?

Answer: submarine

What subject involves the study of the Periodic Table?

Answer: chemistry

What is the name of male sheep?

Answer: ram

How many years are there in a bicentennial?

Answer: two hundred

What is the device that shows the time of the day according to the shadow of sunlight?

Answer: sundial

What do we call the component of a camera that should be developed in darkness?

Answer: Negative / film

What are breakfast, lunch, and dinner examples of?

Answer: Meal

What do we call a collection of large quantity ?

Answer: Bulk

What is the process of removing abnormal heartbeat?

Answer: Defibrillation

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

Answer: Thirty

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 the term for a large, luxurious car, often driven by a chauffeur?

Answer: Limousine

What is the term for a journey, especially a long one, involving travel by sea or in space?

Answer: Voyage

What do we call a short trip taken for pleasure, usually lasting a day?

Answer: Excursion

What is the term for a piece of land surrounded by water?

Answer: Island

What is the term for a steep-sided, often circular, depression in the ground formed by volcanic activity?

Answer: Caldera

What is the term for a large crack or opening in the earth's surface?

Answer: Crevice

What is the term for an intense snowstorm with high winds and low visibility?

Answer: Blizzard

What do we call the sudden occurrence of intense high winds, often with rain, snow, or hail?

Answer: Storm

What is the name of the atmospheric layer closest to Earth's surface, where most weather occurs?

Answer: Troposphere

What is the term for an extended period of armed conflict between nations or states?

Answer: War

What is the term for a formation of troops, ships, or aircraft?

Answer: Squadron

What do you call the vehicle used in combat with heavy armor and typically armed with a large cannon?

Answer: Tank

What is the term for a large painting or decoration, created either directly on a wall or ceiling or on a canvas attached to the wall?

Answer: Mural

What is the term for a symbol that represents an unknown quantity in an equation?

Answer: Variable

What do we call the sum of the lengths of the sides of a polygon?

Answer: Perimeter

What do you call a part of a line that has a fixed starting point but no end point?

Answer: Ray

What is the term for the middle number in a sorted list of numbers?

Answer: Median

What do we call the point where two lines meet?

Answer: Vertex

What do we call the number obtained by dividing one number by another?

Answer: Quotient

What is the name for a structure consisting of a roof supported by columns or piers, usually attached to a building as a porch?

Answer: Portico

What do you call a large, luxurious apartment in a city?

Answer: Penthouse

What do we call a horizontal structural member that supports the load over an opening such as a door or window?

Answer: Lintel

What is the term for an outdoor area for dining or relaxing that is adjacent to a building?

Answer: Patio

Who invented the light bulb?

Answer: Edison

What do we call a baby frog?

Answer: Tadpole

What is the largest bone in the human body?

Answer: Femur

What is the common name for sodium chloride?

Answer: Salt

Who discovered gravity?

Answer: Newton

What do we call animals that are active at night?

Answer: Nocturnal

What device is used to measure temperature?

Answer: Thermometer

Who proposed the theory of relativity?

Answer: Einstein

What do we call water in its solid state?

Answer: Ice

What is the name of the fairy tale character who slept for 100 years?

Answer: Sleeping Beauty

What is the tallest animal in the world?

Answer: Giraffe

What is the capital of Mexico?

Answer: Mexico City

What is the name of the world's longest river?

Answer: Nile

What do we call a female deer?

Answer: Doe

What do we call a baby sheep?

Answer: Lamb

What is the capital of Egypt?

Answer: Cairo

What is the main ingredient in chocolate?

Answer: Cocoa

What is the name of the ship that famously sank in 1912?

Answer: Titanic

What is the capital of Germany?

Answer: Berlin







SUMMARIZE WRITTEN TEXT



Telescope

On a starry night in Padua 400 years ago, Galileo first turned a telescope toward the sky. It might seem the most natural of actions—after all, what else does one do with a telescope? But in 1609, the instrument, which had been invented only the year before by Dutch opticians, was known as a "spyglass," in anticipation of its military uses. The device was also sold as a toy. When Galileo read of it, he quickly set about making a much more powerful version. The Dutch telescopes magnified images by 3 times; Galileo's telescopes magnified them by 8 to 30 times.

At the time, astronomy, like much of science, remained under the spell of Aristotle. Almost 2,000 years after his death, the giant of Greek philosophy was held in such high regard that even his most suspect pronouncements were considered unimpeachable. Aristotle had maintained that all celestial objects were perfect and immutable spheres, and that the stars made a dizzying daily journey around the center of the universe, our stationary Earth. Why scrutinize the sky? The system had already been neatly laid out in books. Astronomers "wish never to raise their eyes from those pages," Galileo wrote in frustration, "as if this great book of the universe had been written to be read by nobody but Aristotle, and his eyes had been destined to see for all posterity."

In Galileo's day, the study of astronomy was used to maintain and reform the calendar. Sufficiently advanced students of astronomy made horoscopes; the alignment of the stars was believed to influence everything from politics to health.

Women in university

If women are so far ahead of men, why are they so far behind? Reports from both sides of the Atlantic show that female students dominate university courses, yet women still do not make it to the top. A report on inequality in the UK said last week that girls had better educational results than boys at 16, went to university in greater numbers and achieved better degrees once they got there. "More women now have higher education qualifications than men in every age group up to age 44," the report said.

In the US, 57 per cent of college graduates in 2006-07 were women. Women form the majority of all graduates under 45. Yet few women make it to the boards of companies in either country. In the UK, the proportion of women on FTSE 100 boards rose fractionally from 11.7 per cent to 12.2 per cent last year, according to the Cranfield University School of Management, but that was only because of a fall in the size of the boards.

In the US, women accounted for 15.2 per cent of board seats on Fortune 500 companies, according to Catalyst, the research organization, which said the numbers had barely budged for five years. The hopeful way of looking at this is that the rising generation of female graduates has yet to reach director age. Give it 10 years and they will dominate boards as they do universities. If that were true, however, we would surely see the number of women director numbers moving up by now. The first year that women college graduates outnumbered men in the US was 1982. These graduates must be entering their 50s – prime director age.

Levels of Crime

The British Crime Survey (BCS) provides an important source of information about levels of crime, public attitudes to crime and other related issues. The results play an important role in informing Home Office policy. The BCS measures the amount of crime in England and Wales by asking people about crimes they have experienced in the last year. This includes crimes not reported to the police, so it is an important alternative to police records. Victims do not report crime for various reasons, and without the BCS there would be no official source of information on these unreported crimes. Because members of the public are asked directly about their experiences, the survey also provides a consistent measure of crime that is unaffected by the extent to which crimes are reported to the police, or by changes in the criteria used by the police when recording crime. The survey also helps to identify those most at risk of different types of crime, and this helps in the planning of crime prevention programs. The BCS also examines people's attitudes to crime, such as how much they fear crime and what measures they take to avoid it. The survey also covers attitudes to the Criminal Justice System (CJS), including the police and the courts, and has also been successful at developing special measures to estimate the extent of domestic violence, stalking and sexual victimization, which are probably the least reported to the police, but among the most serious of crimes in their impact on victims.

Difference in Intelligence

People differ greatly in all aspects of what is casually known as intelligence. The differences are apparent not only in school, from kindergarten to college, but also in the most ordinary circumstances: in the words people use and comprehend, in their differing abilities to read a map or follow directions, or in their capacities for remembering telephone numbers or figuring change. The variations in these specific skills are so common that they are often taken for granted. Yet what makes people so different?

It would be reasonable to think that the environment is the source of differences in cognitive skills — that we are what we learn. It is clear, for example, that human beings are not born with a full vocabulary; they have to learn words. Hence, learning must be the mechanism by which differences in vocabulary arise among individuals. And differences in experience — say, in the extent to which parents model and encourage vocabulary skills or in the quality of language training provided by schools — must be responsible for individual differences in learning.

Earlier in this century, psychology was in fact dominated by environmental explanations for variance in cognitive abilities. More recently, however, most psychologists have begun to embrace a more balanced view: one in which nature and nurture interact in cognitive development. During the past few decades, studies in genetics have pointed to a substantial role for heredity in molding the components of intellect, and researchers have even begun to track down the genes involved in cognitive function. These findings do not refute the notion that environmental factors shape the learning process. Instead they suggest that differences in people's genes affect how easily they learn.

Natural Language

When people start thinking about language, the first question which often occurs to them is this: is language natural to humans? - in the same way that grunting is natural to pigs, and barking comes

naturally to dogs. Or is it just something we happen to have learned? - in the same way that dogs may learn to beg, or elephants may learn to waltz, or humans may learn to play the guitar.

Clearly, in one sense, children 'learn' whatever language they are exposed to, be it Chinese, Nootka or English. So no one would deny that 'learning' is very important. But the crucial question is whether children are born with 'blank sheets' in their head as far as language is concerned - or whether humans are 'programmed' with an outline knowledge of the structure of languages in general.

This question of whether language is partly due to nature or wholly due to learning or nurture is often referred to as the nature-nurture controversy, and has been discussed for centuries. For example, it was the topic of one of Plato's dialogues, the *Cratylus*. Controversies which have been going on for literally ages tend to behave in a characteristic fashion. They lie dormant for a while, then break out fiercely. This particular issue resurfaced in linguistics in 1959 when the linguist Noam Chomsky wrote a devastating and witty review of *Verbal Behavior*, a book by the Harvard psychologist B.F. Skinner (Skinner 1957; Chomsky 1959). This book claimed to 'explain' language as a set of habits gradually built up over the years. According to Skinner, no complicated innate or mental mechanisms are needed. All that is necessary is the systematic observation of the events in the external world which prompt the speaker to utter sounds.

Environmental Technologies

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

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

Drone-delivering

Delivering packages with drones will scale back CO2 emissions in many circumstances as compared to truck deliveries, a brand new study from University of Washington transportation engineers finds.

In a paper to be revealed in an issue of Transportation Analysis, researchers found that drones tend to have lower CO2 emissions than trucks once the drones haven't got to fly a terribly long way to their destinations or once a delivery route has few recipients.

Trucks — which may provide environmental edges by carrying everything from garments to appliances to the article of furniture in a very single trip — become a lot of climate-friendly vehicles once a delivery route has several stops or is farther off from a central warehouse.

For small, light-weight packages — a bottle of drugs or a kid's bathing costume — drones contend particularly well. However, the carbon edges erode because the weight of a package increases since these unmanned aerial vehicles have to be compelled to use extra energy to remain aloft with a significant load.

South Africa

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.

Bank Overdraft

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.

Education Technology

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.

Importance of Soil

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.

Solar Energy

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.

Positive Mindset

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.

Independent Work

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.

Tax on Meat

"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.

Language Teaching Approaches

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.

Silent Movies

The 1920's movie goers experience was largely dominated by silent movies but saw the introduction of synchronized sound. In the 1920's movie stars were really stars - with huge salaries, the fashions and activities of the Hollywood greats echoed around the world and 100,000 people would gather in cities all over the world, including such diverse cities as London and Moscow, to greet Mary Pickford and Douglas Fairbanks when they toured of Europe. Early silent movies were often accompanied by live piano or organ music and provided enormous entertainment value to audiences captivated by the experience of watching moving pictures on the silver screen. Although there had been previous attempts to introduce sound, it wasn't until 1923 that a synchronized sound track was photographically recorded and printed on to the side of the strip of motion picture film and made it on to a commercially distributed movie. It would still be seven long years before talking pictures gained total supremacy and finally replaced the

silent film era.

The first movie theatres were called Nickelodeons, and were very basic compared to the luxurious picture palaces that followed but what an aura of excitement, of laughter, fun and tears surrounded them! Before the introduction of movie soundtracks, movies were often accompanied by scripted music from a piano.

Plastic Particles

Fish are being killed, and prevented from reaching maturity, by the litter of plastic particles finding their way into the world's oceans, new research has proved. Some young fish have been found to prefer tiny particles of plastic to their natural food sources, effectively starving them before they can reproduce. The growing problem of microplastics - tiny particles of polymer-type materials from modern industry - has been thought for several years to be a peril for fish, but the study published on Thursday is the first to prove the damage in trials. Microplastics are near-indestructible in natural environments. They enter the oceans through litter, when waste such as plastic bags, packaging and other convenience materials are discarded. Vast amounts of these end up in the sea, through inadequate waste disposal systems and sewage outfall. Another growing source is microbeads, tiny particles of hard plastics that are used in cosmetics, for instance as an abrasive in modern skin cleaners. These easily enter waterways as they are washed off as they are used, flushed down drains and forgotten, but can last for decades in our oceans.

The impact of these materials has been hard to measure, despite being a growing source of concern. Small particles of plastics have been found in seabirds, fish and whales, which swallow the materials but cannot digest them, leading to a build-up in their digestive tracts. For the first time, scientists have demonstrated that fish exposed to such materials during their development show stunted growth and increased mortality rates, as well as changed behavior that could endanger their survival.

Wright Brothers (B)

After the 1905 flying season, the Wrights contacted the United States War Department, as well as governments and individuals in England, France, Germany, and Russia, offering to sell a flying machine. They were turned down time and time again -- government bureaucrats thought they were crackpots; others thought that if two bicycle mechanics could build a successful airplane, they could do it themselves. But the Wright persisted, and in late 1907, the U.S. Army Signal Corps asked for an aircraft. Just a few months later, in early 1908, a French syndicate of businessmen agreed to purchase another.

Both the U.S. Army and the French asked for an airplane capable of carrying a passenger. The Wright brothers hastily adapted their 1905 Flyer with two seats and a more powerful engine. They tested these modifications in secret, back at Kitty Hawk, North Carolina for the first time in several years. Then the brothers parted temporarily -- Wilbur to France and Orville to Virginia.

In 1908 and 1909, Wilbur demonstrated Wright aircraft in Europe, and Orville flew in Fort Meyer,

Virginia. The flights went well until Orville lost a propeller and crashed, breaking his leg and killing his passenger Lt. Thomas Selfridge. While Orville recuperated, Wilbur kept flying in France, breaking record after record. Orville and his sister Kate eventually joined Wilbur in France, and the three returned home to Dayton to an elaborate homecoming celebration. Together, Orville and Wilbur returned to Fort Meyer with a new Military Flyer and completed the U.S. Army trials. A few months later, Wilbur flew before over a million spectators in New York Harbor -- his first public flight in his native land. All of these flights stunned and captivated the world. The Wright Brothers became the first great celebrities of the twentieth century.

Wright Brothers

Orville and Wilbur Wright were brothers living in Dayton, Ohio. The two had started making bicycles during the 1890s and had a successful small business selling their Wright Specials for \$18 each (\$475 in today's green). This experience with building light, strong machines would prove valuable in the coming years after the brothers' interest turned to flight.

Others in the United States were also developing aircraft at the time the Wright brothers started turning their curiosity skyward. Samuel Langley had flown an unmanned steam-powered aircraft in 1896. Octave Chanute and others were flying gliders near Chicago late in the decade as well. But it wasn't until the Wright brothers started working on the matter that the "flying problem" would finally be solved.

Beginning in 1899, the brothers designed and built a series of gliders to test their various ideas on a flying machine. They constructed a wind tunnel that allowed them to test designs without having to build a full-size model. They even built their own gasoline-powered motor for their aircraft.

But it was the idea of controlled flight that the Wright brothers recognized as the biggest challenge. The Wright brothers realized the problem wasn't getting into the air, it was what to do once the pilot was airborne. One of the key features of the Wright brothers' design is something they learned from watching birds.

The City of London

Who would have thought back in 1698, as they downed their espressos, that the little band of stockbrokers from Jonathan's Coffee House in Change Alley EC3 would be the founder members of what would become the world's mighty money capital?

Progress was not entirely smooth. The South Sea Bubble burst in 1720 and the coffee house exchanges burned down in 1748. As late as Big Bang in 1986, when bowler hats were finally hung up, you wouldn't have bet the farm on London surpassing New York, Frankfurt and Tokyo as Mammon's international nexus.

Yet the 325,000 souls who operate in the UK capital's financial hub have now overtaken their New York

rivals in size of the funds managed (including offshore business); they hold 70% of the global secondary bond market and the City dominates foreign exchange trading. And its institutions paid out £9 billion in bonuses in December. The Square Mile has now spread both eastwards from EC3 to Canary Wharf and westwards into Mayfair, where many of the private equity 'locusts' and their hedge fund pals now hang out.

For foreigners in finance, London is the place to be. It has no Sarbanes Oxley and no euro to hold it back, yet the fact that it still flies so high is against the odds. London is one of the most expensive cities in the world to live in, transport systems groan and there's an ever present threat of terrorist attack. But, for the time being, the deals just keep on getting bigger.

Plug-in Vehicle

Here's a term you're going to hear much more often: plug-in vehicle, and the acronym PEV. It's what you and many other people will drive to work in ten years and more from now. At that time, before you drive off in the morning you will first unplug your car - your plugin vehicle. Its big on board batteries will have been fully charged overnight, with enough power for you to drive 50-100 kilometers through city traffic.

When you arrive at work you'll plug in your car once again, this time into a socket that allows power to flow from your car's batteries to the electricity grid. One of the things you did when you bought your car was to sign a contract with your favorite electricity supplier, allowing them to draw a limited amount of power from your car's batteries should they need to, perhaps because of a blackout, or very high wholesale spot power prices. The price you get for the power the distributor buys from your car would not only be most attractive to you, it would be a good deal for them too, their alternative being very expensive power from peaking stations. If, driving home or for some other reason your batteries looked like running flat, a relatively small, but quiet and efficient engine running on petrol, diesel or compressed natural gas, even bio-fuel, would automatically cut in, driving a generator that supplied the batteries so you could complete your journey.

Concerns over 'peak oil', increasing greenhouse gas emissions, and the likelihood that by the middle of this century there could be five times as many motor vehicles registered worldwide as there are now, mean that the world's almost total dependence on petroleum-based fuels for transport is, in every sense of the word, unsustainable.

Plants Research

Plants serve as the conduit of energy into the biosphere, provide food and materials used by humans, and they shape our environment. According to Ehrhardt and Frommer, the three major challenges facing humanity in our time are food, energy, and environmental degradation. All three are plant related.

All of our food is produced by plants, either directly or indirectly via animals that eat them. Plants are a

source of energy production. And they are intimately involved in climate change and a major factor in a variety of environmental concerns, including agricultural expansion and its impact on habitat destruction and waterway pollution.

What's more, none of these issues are independent of each other. Climate change places additional stresses on the food supply and on various habitats. So, plant research is instrumental in addressing all of these problems and moving into the future. For plant research to move significantly forward, Ehrhardt and Former say technological development is critical, both to test existing hypotheses and to gain new information and generate fresh hypotheses. If we are to make headway in understanding how these essential organisms function and build the foundation for a sustainable future, then we need to apply the most advanced technologies available to the study of plant life, they say.

Malaysia Tourism

Malaysia is one of the most pleasant, hassle-free countries to visit in Southeast Asia. Aside from its gleaming 21st century glass towers, it boasts some of the most superb beaches, mountains and national parks in the region. Malaysia is also launching its biggest-ever tourism campaign in effort to lure 20 million visitors here this year.

Any tourist itinerary would have to begin in the capital, Kuala Lumpur, where you will find the Petronas Twin Towers, which once comprised the world tallest buildings and now hold the title of second-tallest. Both the 88-story towers soar 1,480 feet high and are connected by a sky-bridge on the 41st floor. The limestone temple Batu Caves, located 9 miles north of the city, have a 328-foot-high ceiling and feature ornate Hindu shrines, including a 141-foot-tall gold-painted statue of a Hindu deity. To reach the caves, visitors have to climb a steep flight of 272 steps. In Sabah state on Borneo island not to be confused with Indonesias Borneo you'll find the small mushroom-shaped Sipadan island, off the coast of Sabah, rated as one of the top five diving sites in the world. Sipadan is the only oceanic island in Malaysia, rising from a 2,300-foot abyss in the Celebes Sea. You can also climb Mount Kinabalu, the tallest peak in Southeast Asia, visit the Sepilok Orang Utan Sanctuary, go white-water rafting and catch a glimpse of the bizarre Proboscis monkey, a primate found only in Borneo with a huge pendulous nose, a characteristic pot belly and strange honking sounds.

While you're in Malaysia, consider a trip to Malacca. In its heyday, this southern state was a powerful Malay sultanate and a booming trading port in the region. Facing the Straits of Malacca, this historical state is now a place of intriguing Chinese streets, antique shops, old temples and reminders of European colonial powers. Another interesting destination is Penang, known as the Pearl of the Orient. This island off the northwest coast of Malaysia boasts of a rich Chinese cultural heritage, good food and beautiful beaches.

Electric Cars

Although we tend to think of electric cars as being something completely modern, they were in fact some of the earliest types of motorized vehicle.

At the beginning of the twentieth century electric cars were actually more popular than cars with an internal combustion engine as they were more comfortable to ride in. However, as cars fuelled by petrol increased in importance, electric cars declined. The situation became such that electric vehicles were only used for certain specific purposes - as fork-lift trucks, ambulances and urban delivery vehicles, for example.

Although electricity declined in use in road vehicles, it steadily grew in importance as a means of powering trains. Switzerland, for example, was quick to develop an electrified train system, encouraged in this no doubt by the fact that it had no coal or oil resources of its own.

Nowadays there is renewed interest in electricity as a means of powering road vehicles. Why is this the case? Well, undoubtedly economic reasons are of considerable importance. The cost of oil has risen so sharply that there is a strong financial imperative to look for an alternative. However, there are also environmental motivations. Emissions from cars are blamed in large part for - among other things - the destruction of the ozone layer and the resultant rise in temperatures in the polar regions. A desire not to let things get any worse is also encouraging research into designing effective electric transport.

Children Allowance

Many people who have written on the subject of allowances say it is not a good idea to pay your child for work around the home. These jobs are a normal part of family life. Paying children to do extra work around the house, however, can be useful. It can even provide an understanding of how a business works. Allowances give children a chance to experience the things they can do with money. They can share it in the form of gifts or giving to a good cause. They can spend it by buying things they want. Or they can save and maybe even invest it. Saving helps children understand that costly goals require sacrifice: you have to cut costs and plan for the future. Requiring children to save part of their allowance can also open the door to future saving and investing. Many banks offer services to help children and teenagers learn about personal finance. A savings account is an excellent way to learn about the power of compound interest. Compounding works by paying interest on interest. So, for example, one dollar invested at two percent interest for two years will earn two cents in the first year. The second year, the money will earn two percent of one dollar and two cents, and so on. That may not seem like a lot. But over time it adds up.

Australian Indigenous Food

In its periodic quest for culinary identity, Australia automatically looks to its indigenous ingredients, the foods that are native to this country. 'There can be little doubt that using an indigenous product must qualify a dish as Australian notes Stephanie Alexander. Similarly, and without qualification, states that 'A

uniquely Australian food culture can only be based upon foods indigenous to this country, although, as Craw remarks, proposing Australian native foods as national symbols relies more upon their association with 'nature' and geographic origin than on common usage. Notwithstanding the lack of justification for the premise that national dishes are, of necessity, founded on ingredients native to the country—after all, Italy's gastronomic identity is tied to the non-indigenous tomato, Thailand's to the non-indigenous chili—the reality is that Australians do not eat indigenous foods in significant quantities. The exceptions are fish, crustaceans and shellfish from oceans, rivers and lakes, most of which are unarguably unique to this country. Despite valiant and well-intentioned efforts today at promoting and encouraging the consumption of native resources, bush foods are not harvested or produced in sufficient quantities for them to be a standard component of Australian diets, nor are they generally accessible. Indigenous foods are less relevant to Australian identity today than lamb and passionfruit, both initially imported and now naturalized.

2014 Olympics

11 February 2009 – Major athletic events around the globe – from the 2014 Sochi Olympics to an annual powerboat race in Norwegian fjords – are striving to neutralize their carbon footprint as part of a world-wide climate network, the United Nations Environment Programme (UNEP) said today.

The sporting events are the latest participants to join the network, and are particularly important for inspiring further global action on the environment, said Achim Steiner, UNEP Executive Director.

“Whether carried out on track and field or on ice and snow, sporting events ignite the spirit of achievement in thousands of competitors and billions of spectators worldwide,” Mr. Steiner said.

“It is, therefore, heartening that this passion for excellence increasingly encompasses environmental performance, with sporting organizations raising the bar ever higher at each and every tournament,” he added.

Organizers of the 2014 Sochi Olympic and Paralympic Winter Games – to be held in a unique natural setting between the shores of the Black Sea and the soaring snow-capped Caucasus Mountains – say they will put an estimated \$1.75 billion into energy conservation and renewable energy.

That investment will be dedicated to improving transport infrastructure, offsetting greenhouse gas emissions from the use of electricity, air travel and ground transportation, the reforestation of Sochi National Park and the development of green belts in the city.

House Mice

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

important questions in areas where there is a lack of artifacts, Searle said. Where people go, so do mice, often stowing away in carts of hay or on ships. Despite a natural range of just 100 meters (109 yards) and an evolutionary base near Pakistan, the house mouse has managed to colonize every continent, which makes it a useful tool for researchers like Searle.

Previous research conducted by Searle at the University of York supported the theory that Australian mice originated in the British Isles and probably came over with convicts shipped there to colonize the continent in the late 18th and 19th centuries. In the Viking study, he and his fellow researchers in Iceland, Denmark and Sweden took it a step further, using ancient mouse DNA collected from archaeological sites dating from the 10th to 12th centuries, as well as modern mice.

He is hoping to do just that in his next project, which involves tracking the migration of mice and other species, including plants, across the Indian Ocean, from South Asia to East Africa.

Ageing Australia

In 2005 Japan had the highest median age of all countries in the world, while Australia's population was only moderately aged. Some 50 years ago the demographic situation was quite different, with the median age of Australia's population being seven years older than Japan's.

The ageing of the population is a major issue for Australian policy makers, particularly in regard to the long-term implications for reduced economic growth and the increasing demand for Age Pensions, and health and aged care services. As the population ages, growth in the number of people of working age will slow, while the proportion of people of retirement age will increase.

Sustained population ageing also leads to slowing or negative population growth. While declining population growth in developed countries is welcomed by some environmentalists and social scientists, economists tend to agree that population decline brings gloomy economic prospects. In addition to the decrease in the labor supply, the demand side of the economy may be affected through shrinking markets for goods and services.

How quickly this occurs depends on the dynamics of fertility, mortality and overseas migration. While a moderate pace of demographic change allows for gradual adjustment of the economy and policies to the changing population demographics, rapid changes are more difficult to manage. As a result, governments and society as a whole may need to take actions to address these issues. But how severe is the ageing of Australia's population, relative to other countries?

One way of applying a degree of perspective to the ageing debate is to compare ageing in Australia with that of other countries. This article examines the population structures in Australia and Japan and the demographic forces that shape the respective populations, both historically and projections for the future.

Paleolithic People

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

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

Embracing Simplicity

In our fast-paced and increasingly complex world, it's easy to become overwhelmed by the demands of modern life. However, there is a growing movement that encourages us to embrace simplicity and find joy in the everyday moments.

Simplicity is not about deprivation or austerity; it's about focusing on what truly matters and eliminating unnecessary clutter from our lives. It's about rediscovering the beauty in simplicity, mindfulness, and gratitude.

One way to embrace simplicity is by decluttering our physical spaces. Marie Kondo's KonMari method, for example, advocates for keeping only the possessions that "spark joy." By tidying up and organizing our surroundings, we create a more peaceful and harmonious environment.

Another aspect of simplicity is cultivating mindfulness. This means being fully present in the moment, savoring each experience, and appreciating the small pleasures in life. Whether it's enjoying a cup of tea, taking a leisurely walk in nature, or spending quality time with loved ones, mindfulness allows us to connect with the richness of the present.

Gratitude is also a key element in finding joy in simplicity. Taking time to acknowledge and appreciate the things we often take for granted can shift our perspective and bring greater happiness. Practicing gratitude reminds us of the abundance in our lives, even during challenging times.

Simplicity does not require a radical overhaul of our lives; it's about making small, intentional choices that align with our values and priorities. By simplifying our lives, we can reduce stress, enhance our well-being, and create space for the experiences and relationships that truly enrich our lives.

In conclusion, embracing simplicity is a powerful antidote to the complexities of modern life. It invites us to declutter, be mindful, and practice gratitude, ultimately allowing us to find greater joy in the everyday moments and appreciate the beauty in life's simplicity.

Bridges in Digital Age

In an era dominated by technology and screens, the significance of genuine human connections cannot be overstated. As our lives become increasingly intertwined with digital platforms, it's essential to recognize and nurture the human relationships that form the foundation of our society.

Despite the convenience and connectivity provided by social media and digital communication tools, there's a growing concern that these virtual interactions often lack depth and authenticity. A simple "like" or "comment" on a social media post cannot replace the warmth of a smile, the comfort of a hug, or the understanding in a friend's eyes during a face-to-face conversation.

Human connections are not just about the exchange of information; they are about empathy, shared experiences, and emotional support. They are about listening, understanding, and offering a helping hand when needed. These connections create a sense of belonging and contribute to our overall well-being.

Building and nurturing meaningful human relationships require time, effort, and intentionality. It involves being present with others, actively listening, and showing genuine interest in their lives. It involves reaching out to friends and family, strengthening bonds, and creating a support network that can weather life's challenges.

In a world that often values virtual connections and digital distractions, let us not forget the profound impact of human relationships. As we navigate the digital age, let us make a conscious effort to prioritize genuine human connections, for they are the threads that weave the fabric of our lives, providing comfort, joy, and a sense of belonging in an increasingly complex world.

Journey through Words

Literature is a timeless treasure trove of human expression and imagination. Through the written word, authors have crafted stories, poems, and plays that transport readers to different worlds, evoke emotions, and challenge perspectives. Let's embark on a journey to explore the rich tapestry of literary works that have left an indelible mark on our hearts and minds. One of the most celebrated literary works is "To Kill a Mockingbird" by Harper Lee. This novel, set in the American South during the 1930s, delves into issues of racism, justice, and morality through the eyes of young Scout Finch. With its powerful themes and memorable characters, "To Kill a Mockingbird" continues to be a thought-provoking and influential work. In the realm of poetry, the works of Emily Dickinson stand out. Her concise yet profound poems explore themes of nature, love, and the human experience. Dickinson's unique style and use of imagery have made her one of the most beloved and studied poets in American

literature. Shakespeare's plays, including "Romeo and Juliet," "Hamlet," and "Macbeth," remain timeless classics. His mastery of language, intricate plots, and exploration of universal themes like love, ambition, and power have ensured his enduring legacy in the world of literature. Contemporary literature has also produced remarkable works. Arundhati Roy's "The God of Small Things" is a modern masterpiece that weaves a complex narrative of family, love, and societal norms in India. The novel's lyrical prose and evocative storytelling have earned it critical acclaim and a dedicated readership. Literary works have the power to transcend time and place, offering readers a window into the human condition. Each work carries its own unique voice and perspective, inviting us to reflect on our own lives and the world around us. As we delve into the pages of these literary treasures, we embark on a journey of discovery, empathy, and enlightenment, finding solace and inspiration in the beauty of words.

Inevitable Rhythms

The natural world is a testament to the profound and intricate patterns of growth and change that govern all living things. Whether it's the growth of a towering oak tree or the transformation of a caterpillar into a butterfly, the rhythms of growth and change are embedded in the very fabric of life. One of the most remarkable aspects of growth is its consistency. In the world of plants, seeds germinate, roots take hold, and shoots emerge, all guided by the innate wisdom of nature. Animals, too, undergo predictable stages of development as they progress from infancy to adulthood. These processes are governed by genetic instructions that ensure the survival and reproduction of species. Change is another fundamental aspect of growth. As living organisms grow, they undergo numerous transformations. For example, the seasons bring about dramatic changes in the natural world. Trees shed their leaves in the fall, only to bud new ones in the spring. Animals molt, migrate, and hibernate in response to changing environmental conditions. The concept of metamorphosis, as seen in the transformation of a caterpillar into a butterfly, illustrates the marvels of growth and change. This process involves a series of distinct stages, each with a specific purpose. The caterpillar, a voracious eater, prepares for its final transformation by storing energy and building a chrysalis. Inside the chrysalis, the caterpillar undergoes a remarkable metamorphosis, emerging as a completely different creature with wings that enable it to fly. Ultimately, these patterns of growth and change remind us of the resilience and adaptability of life in the natural world. They highlight the interconnectedness of all living things and the importance of preserving and protecting our environment to ensure the continued growth and evolution of the diverse species that call our planet home.

Investment Markets

Investment markets can be a labyrinth of opportunities and risks. Whether you're a seasoned investor or a newcomer, understanding the dynamics of these markets is essential for making informed financial decisions.

One of the critical aspects of the investment market is diversification. Spreading your investments across various asset classes can help reduce risk. A well-balanced portfolio may include stocks, bonds, real estate, and alternative investments. Diversification can cushion the impact of market volatility and enhance the potential for long-term returns.

Market research is another key component. Staying informed about economic trends, geopolitical

events, and company performance is vital. Many investors rely on financial news, reports, and expert analysis to make informed decisions.

Risk management is also paramount. Assessing your risk tolerance and setting clear investment goals are essential steps. Risk tolerance varies from person to person, and understanding your comfort level can help you determine the appropriate mix of assets in your portfolio.

Moreover, patience is a virtue in investment markets. Markets can fluctuate, and short-term fluctuations are common. Long-term investors often benefit from riding out market volatility and staying committed to their investment strategies.

Furthermore, it's crucial to stay vigilant about fees and costs associated with investments. High fees can erode your returns over time. Understanding the fees associated with various investment options can help you make cost-effective choices.

Lastly, consider seeking professional advice. Financial advisors can provide valuable insights and help you create an investment strategy tailored to your financial goals and risk tolerance.

In conclusion, investment markets can be complex, but with the right knowledge and approach, they offer opportunities for wealth accumulation and financial growth. Diversification, research, risk management, patience, cost awareness, and professional guidance are essential elements for navigating the intricacies of investment markets successfully.





WRITE ESSAY

ONE AUSTRALIA

Professional athletes can earn very high salaries. Many people argue that this is unfair and that other professions deserve higher salaries. To what extent do you agree or disagree?

Artificial intelligence is good in the teaching field. To what extent do you agree with this?

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

As dealing with money is such an important skill, all children should be taught financial management at school. Do you agree with it or not?

Some believe the value of travel is overrated. 'One brilliant scholar never leaves the home bases.' People argue whether travel is a necessary component of quality education or not. To what extent do you agree with it?

In the company, some people think the employers should involve the workers in decision making. 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 to grow up in the 21st century than it was in the past. How far do you agree with this statement? Give your opinions.

Many 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.” Do you agree with the statement? 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 the lonely. 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.

Many people engage in dangerous activities, such as sky-diving, 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. Please discuss this statement, and give and explain your opinion.

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

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 focus on 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 ?

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 in more and more situations use credit cards instead of cash. Cashless society seems to be a reality. How realistic do you think it might be? What are the potential benefits or problems of this phenomenon?

Age restrictions are placed on many activities. It is believed that people should not do things until they reach the right ages, such as getting married, driving, voting, buying certain products, and doing particular things. Give an example, state which minimum age you think it should be and share your own experience.

Tourism is good for a less developed country, but the disadvantages of tourism can be as great as the advantages. Discuss it.

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.

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?

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?

Climate change is a concerning global issue. Who has responsibilities to solve the problem, governments, large companies, or individuals?

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

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?

In some companies, employers involve workers in decision-making process about products and services. What are the advantages and disadvantages of such a policy?

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?

Many education systems assess students' learning 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.

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

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?

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.

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?

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 ?

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?

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

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.

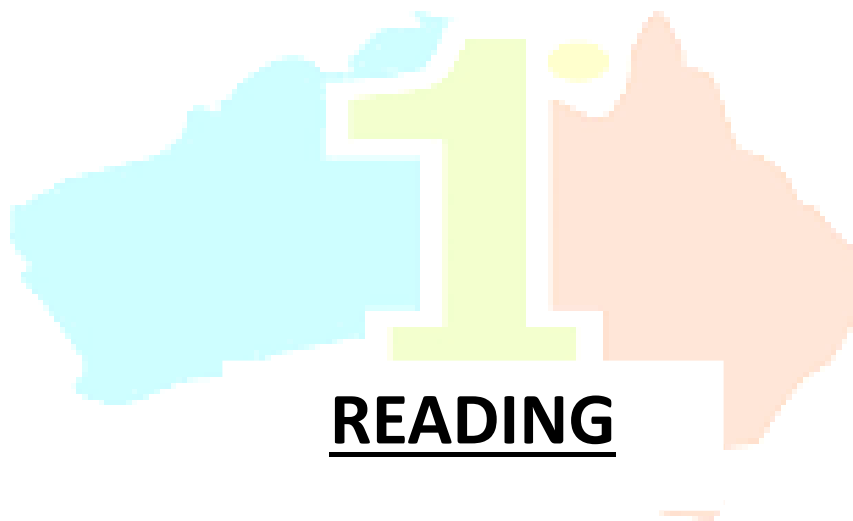
Some universities deduct marks from students' work if it is given in late. What is your opinion? Suggest some alternative actions.

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

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

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.





READING

ONE AUSTRALIA



R/W FILL IN THE BLANKS



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 (Answer: updated) and published annually. Well-being is discussed in terms of the economy, people and the environment. Information such as the unemployment rate or (Answer: number) of crimes against the person are presented alongside data on people's thoughts and feelings, for example, satisfaction with our jobs or (Answer: leisure) time and fear of crime. Together, a richer picture on 'how society is doing' is provided.

Choices:

- 1.delivered, protected, demanded, overviewed
- 2.distorted, chartered, updated, arranged
- 3.velocity, weight, span, number
- 4.pressure, plea, fancy, leisure

At the height of summer in the Antarctic, tourist ships move gently around the coast. Even 30 years ago such sights would have been unthinkable, but today people are willing to pay large sums of money to see the last real wilderness in the world. In the Arctic, careless human exploitation (Answer: in the past) has damaged the fragile ecosystem. Today concerned governments are trying to find ways to develop the region (Answer: while) caring for the very special natural environment. (Answer: Because) the Antarctic is less accessible than the Arctic, it is still largely undamaged by humans, although holes in the ozone layer above the Antarctic have (Answer: already been discovered). Many people believe that one way to preserve the area is to make the whole region into a world park, with every form of exploitation internationally (Answer: banned).

Choices:

- 1.inthefuture, ever before, on one side, in the past
- 2.while, whereas, even, though
- 3.Because, Whether, Unless, Besides
- 4.yet discovered, ever discovered, already been discovered, already been discovering
- 5.expanded, spanned, banned, transformed

Discrimination against women has been alleged in hiring practices for many occupations, but it is extremely difficult to demonstrate sex-biased hiring. A change (Answer: in) the way symphony orchestras recruit musicians provides an unusual way to test for sex-biased hiring. To overcome possible biases in hiring, most orchestras revised their audition policies in the 1970s and 1980s. A major change involved the use of 'blind' auditions with a 'screen' to (Answer: conceal) the identity of the candidate from the jury. Female musicians in the top five symphony orchestras in the United States were less than

5% of all players in 1970 but are 25% today. We ask whether women were more likely to be advanced and/or hired with the use of 'blind' auditions. Using data from actual auditions in an individual fixed-effects framework, we find that the screen increases by 50% the probability a woman will be advanced out of certain preliminary rounds. The screen also enhances, by several fold, the likelihood a female contestant will be the winner in the final round. Using data on orchestra personnel, the switch to 'blind' auditions can explain between 30% and 55% of the (Answer: increase) in the proportion female among new hires and between 25% and 46% of the increase in the percentage female in the orchestras since 1970.

Choices:

1. around, beyond, in, by
2. conceal, contain, cancel, check
3. decrease, number, increase, amount

The principal recommendation of the world conferences was that countries must take full responsibility for their own development. National responsibility for national development is the necessary consequence of (Answer: sovereignty). The Monterrey Consensus states that Each country has primary responsibility for its own economic and social development, and the role of national policies and development strategies cannot be over-emphasized. The Johannesburg Plan of Implementation called for all governments to begin implementing national sustainable development strategies (NSDS) by 2005 and the 2005 Summit agreed on a target of 2006 for all developing countries to (Answer: adopt) and start implementation of these strategies to achieve the internationally agreed goals. The automatic (Answer: corollary) of that principle is that each country must be free to determine its own development strategy. It is essential that all donors and lenders accept the principle of country ownership of national development strategies. This implies the acceptance of the principle that development strategies should not only be (Answer: attuned) to country circumstances, but also be prepared and implemented under the leadership of the governments of the countries themselves. The 2005 World Summit also acknowledged, in this (Answer: regard), that all countries must recognize the need for developing countries to strike a balance between their national policy priorities and their international commitments.

Choices:

1. legitimacy, sovereignty, severity, infinity
2. rebuke, condemn, revise, adopt
3. category, column, link, corollary
4. similar, accustomed, akin, attuned
5. regard, region, period, ratio

The king had commissioned the crafting of a crown as a tribute to the gods. He gave a carefully weighed amount of gold to a smith, who produced a beautiful crown within due course. The king became suspicious, however, (Answer: that) the craftsman had not used all of the gold he had been given in the crown. It was a common trick to alloy gold with cheaper silver, but the King knew no way of proving that the craftsman had been dishonest. He called upon his close friend Archimedes to solve the problem. Archimedes knew that gold and silver have different densities, (Answer: meaning) that a lump of gold will weigh about twice as much as a lump of silver the same size. The trouble was that no one knew how to work out the size of an irregularly shaped object like a crown. Whilst he was pondering this conundrum, Archimedes went to the public baths to relax. As he slipped into the water he noticed some spilling over the edge, and he had a sudden flash of inspiration. The (Answer: displaced) water must have exactly the same volume as him. And if you know the volume of an object you can easily calculate its density. All Archimedes had to do was find out whether a lump of pure gold, with the same volume as the crown, weighed more. The crown would be lighter than it should be if the craftsman had deviously used some silver instead. Archimedes, in a fit of jubilation, leapt straight out of the bath and ran naked down the streets shouting "Eureka!" – "I've found it!". The goldsmith soon (Answer: confessed) and was dealt with by the King.

Choices:

- 1.if, whether, thus, that
- 2.meaning, meant, means, to mean
- 3.submerged, disposed, diagnosed, displaced
- 4.conjured, contradicted, confessed, condemned

Durkheim found humanistic studies uninteresting, (Answer: turning his attention) from psychology and philosophy to ethics and eventually, sociology. He graduated with a degree in philosophy in 1882. Durkheim's views (Answer: could not get) him a major academic appointment in Paris, so from 1882 to 1887 he taught philosophy at several provincial schools. In 1885 he (Answer: left for) Germany, where he studied sociology for two years. Durkheim's period in Germany (Answer: resulted in) the publication of numerous articles on German social science and philosophy, which (Answer: gained recognition) in France, earning him a teaching appointment at the University of Bordeaux in 1887.

Choices:

- 1.moving his position, alternating his mind, juggling his job, turning his attention
- 2.hasn't got, were getting, can't get, could not get
- 3.came after, wrote about, ran across, left for
- 4.resulted in, flicked through, was down to, achieved by
- 5.remained modest, gained appreciation, collected money, gained recognition

The transitions which occurred in Britain around 100 BC, and after 43 AD (when the Roman Army (Answer: invaded) Britain) represent the key points of socio-economic trend in Britain's past. During the first century BC, the traditional communal form of life (Answer: shifted) rapidly to a world where certain individuals (Answer: became) more important. During the first century AD, Britain became fully a part of the Roman Empire.

Choices:

- 1.purported, pursued, enlightened, invaded
- 2.withdrew, shaped, awarded, shifted
- 3.having become, became, become, becoming

Victorians were avid readers. Just as we bury our faces in our mobile devices on the morning commute, (Answer: so too) did Victorians with the latest penny fiction. Perhaps the best known serialized novels were the "Penny Dreadfuls". (Answer: Costing) just one old penny, they focused on the exploits of detectives, criminals, or supernatural entities. The price of new books — often only available as a set of three — was out of reach for most working-class people, so they borrowed from circulating libraries (Answer: such as) Mudie's (founded 1842), which dispatched books all over Britain for a modest subscription fee. For the wealthier classes who (Answer: could afford) first editions, reading from their own collection would be an everyday occurrence.

Choices:

- 1.as well, so too, neither, whether
- 2.Costed, Have costed, Cost, Costing
- 3.such as, other than, that is, as to
- 4.could afford, afford, having afforded, affording

Governments also frequently subsidize local industries to help them compete in the global market. Subsidies come (Answer: in the form of) tax credits or direct payments. The most commonly used are farm subsidies. That allows producers to lower the price of local goods and services. This (Answer: makes) the products cheaper (Answer: even) when shipped overseas. Subsidies work even better than tariffs. This method works best for countries that rely mainly on exports. (Answer: On the contrary) sometimes subsidies can have the opposite effect. The Agricultural Adjustment Act of 1933 allowed the government to pay farmers (Answer: not) to grow crops or livestock, which let their fields rest and regain nutrients. It helped the agriculture industry but raised food costs during the Depression.

Choices:

- 1.apart from, in the form of, through, as well as
- 2.makes, allows, promises, decides
- 3.thus, despite, however, even
- 4.Therefore, Unless, Besides, On the contrary
- 5.neither, either, not, whether

Mercury is not found in many common products that we buy because it can be very dangerous. The most common products that (Answer: contain) mercury are batteries, powerful outdoor lights, disinfectants and thermometers, which are used to (Answer: measure) our body's temperature. It can also be found in barometers, which are used to measure air pressure and show (Answer: changes) in weather, and thermostats, which (Answer: regulate) the temperature of buildings. Mercury can also be found in printer and photocopy toners.

Choices:

- 1.hold, contain, tribute, require
- 2.depict, value, measure, detect
- 3.changes, contrasts, marks, contours
- 4.conclude, determine, fold, regulate

Modern technology has enhanced the study of language by making its sounds observable in greater detail and with greater accuracy than ever before, but the thoughts associated with those sounds remain problematic. Currently developing (Answer: technologies) of brain imaging are allowing us to observe for the first-time which parts of the brain are active in different circumstances. They do not, however, show experiences themselves, which may always remain (Answer: hidden) from public observation. There is a sense in which each of us knows what we are thinking, (Answer: although) we may not always have a good way of verbalizing it. But the only way we can know what someone else is thinking is through what that person says, or through some other overt action, a (Answer: facial) expression or gesture, perhaps from which that person's thoughts may be inferred, or from imagining what we ourselves would be thinking (Answer: in) similar circumstances.

Choices:

- 1.processes, technologies, modes, facilities
- 2.hiding, hide, hidden, hideous
- 3.besides, so, therefore, although

4.face, facing, facial, faced

5.with, on, in, about

The wrist watch works by (Answer: tracking) information such as a person's pulse or movement. When it (Answer: detects) a change in a person's health, the watch sends information to a touchscreen hub (Answer: located) in the home. The hub then (Answer: alerts) pre-determined contacts and calls for help immediately.

Choices:

1.transferring, tracking, modifying, unveiling

2.defines, varies, detects, reflects

3.restored, located, scattered, summoned

4.suppresses, alerts, collects, stimulates

Early humans were hunter-gatherers, roaming from place to place, but their movements were controlled by the need for water. When humans (Answer: started) to grow food and established permanent settlements, water was needed for crops and animals as well as for people, (Answer: so) settlements have always grown up near reliable sources of water. Most major towns lie on the banks of rivers, or, where there are no streams or rivers, settlements exist where underground water can be reached by digging wells. The management of water resources has a (Answer: long history). The oldest known dam in the world was constructed in Egypt about 5000 years ago, and was used for storing drinking and irrigation water. Farmers in Arabia at this time used the craters of extinct volcanoes as storage tanks for irrigation water and dug deep wells for their drinking water. Excavated ruins in India of similar antiquity retain the remains of water supply and drainage systems, (Answer: which) included baths and swimming pools.

Choices:

1.start, have started, starting, started

2.because, so, thus, thereby

3.meticulousstudy, moderate change, brief existence, long history

4.as, what, which, whatever

In the UK, it is recommended that drivers should turn off their car engines when they expect to be stationary for more than 1 minute. To encourage drivers (Answer: to turn off) their engines while waiting at rail crossings, the Kent city council placed a permanent sign at the crossing asking drivers to "please switch off your engine when barriers are down to help improve air quality." (Answer: On average), drivers had to wait between 2 and 3 minutes to cross after the barrier had gone down. However, the sign didn't seem to be convincing the (Answer: majority) of drivers to switch off their engines. " (Answer: Although) some research suggests that signs (Answer: alone) can change behavior, the message on this sign was designed simply to be an informational request and was not guided by any particular behavioral theory," the researchers explain. So the research team, led by Rose Mellady of the University of East Anglia, designed an intervention study.

Choices:

- 1.to turn off, turn off, turning off, turned off
- 2.For instance, On average, In addition, Of course
- 3.exception, minority, majority, unity
- 4.Although, Since, Because, Thus
- 5.alone, lonely, neither, either

Emerging in the mid 1950s in Britain and late 1950s in America, pop art reached its peak in the 1960s. It began as a revolt (Answer: against) the dominant approaches to art and culture and traditional views on what art (Answer: should be). Young artists felt that what they were taught at art school and what they saw in museums did not have anything (Answer: to do with) their lives or the things they saw around them every day. Instead they (Answer: turned to) sources such as Hollywood movies, advertising, product packaging, pop music and comic books for their imagery.

Choices:

- 1.against, along, with, within
- 2.be, should be, has been, would be
- 3.relevantin, familiar with, to do with, about
- 4.musteredup, relevant in, turned to, reckoned on

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

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 (Answer: 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 (Answer: went) extinct. But then 66 million years ago, over a relatively short time, dinosaurs disappeared (Answer: completely) (except for birds). Many other animals also died out, including pterosaurs, large marine reptiles, and other sea creatures such as ammonites. (Answer: Although) the number of dinosaur species was already declining, this suggests a sudden catastrophic event sealed their fate, causing unfavorable changes to the environment more quickly than dinosaurs and other creatures could adapt. The exact nature of this catastrophic event is still (Answer: open) to scientific debate. The catastrophe could have been an asteroid impact, volcanic eruptions or the effect of both, together with more (Answer: 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.

Choices:

1. existence, continuous, extent, expectation
2. went, to go, going, go
3. partially, gradually, completely, excessively
4. However, Because, Although, Unless
5. relative, open, additional, focused
6. irregular, gradual, spiritual, positive

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. beneficially, 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

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

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

Dance has played an important role in many musicals. In some (Answer: cases), dance numbers are included as an excuse to add to the color and spectacle of the show, but dance is more effective when it forms an integral part of the (Answer: plot). An early example is Richard Rodgers On Your Toes (1936) in which the story about classical ballet meeting the world of jazz enabled dance to be introduced in a way that (Answer: enhances), rather than interrupts the drama.

Choices:

1.times, cases, brief, extent

2.prowess, plot, phenomenon, roundabout

3.encumbers, enhances, levels, crumples

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

"Until now, few (Answer: sightings) of the alien lionfish Pterois miles have been reported in the Mediterranean and it was (Answer: questionable) whether the species could invade this region like it has in the western Atlantic." Demetris Kletou, co-author of the paper said in a statement. "But we've found that lionfish have recently (Answer: increased) in abundance, and within a year have colonized almost the entire south eastern coast of Cyprus, assisted by sea surface warming." Lionfish were originally found in the waters of the Pacific and Indian Oceans. They likely ended up in the Caribbean and Western Atlantic after (Answer: being released) from home aquariums. The invasion of the Mediterranean has different roots. The expansion of the Suez Canal has given lionfish even more access to the Mediterranean Sea and warming water temperatures have provided the (Answer: perfect) environment for the invasive species.

Choices:

- 1.collections, views, sight, sightings
- 2.somehow, although, that, questionable
- 3.shown, flatted, stabled, increased
- 4.being released, release, releasing, released
- 5.whole, overall, partial, perfect



The speed of sound (otherwise known as Mach 1) varies with temperature. At sea level on a 'standard day', the temperature is 59°F, and Mach 1 is approximately 761 mph. As the altitude increases, the temperature and speed of sound (Answer: both) decrease until about 36,000 feet, after which the temperature (Answer: remains) steady until about 60,000 feet. Within that 36,000 – 60,000 foot range, Mach 1 is about 661 mph. Because of the (Answer: variation) , it is possible for an airplane flying supersonic at high altitude to be slower than a subsonic flight at sea level. The transonic band (the 'sound barrier') extends (Answer: from) around Mach 0.8 — when the first supersonic shock waves (Answer: form on) the wing — to Mach 1.2, when the entire wing has gone supersonic.

Choices:

- 1.not, yet, none, both
- 2.opposes, remains, plots, mutates
- 3.variety, variation, speed, similarity
- 4.near, from, with, in

5. diverge from, add to, prevent from, form on

Research demonstrates that facial appearance affects social perceptions. The current research investigates the reverse (Answer: likelihood): 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, likelihood, opportunity, chance
2. not with standing, ever, whereby, despite
3. exist, existing, existence, existent
4. into, beyond, within, by
5. prophecy, observation, preference, stipulation
6. sufficient, excessive, inadequate, 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, more
- 2.anticipation, predictability, predicted, predicts
- 3.purely, evenly, disproportionately, firmly
- 4.commits, directs, allows, addresses
- 5.spare, dispense, apply, consume

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, In addition, Therefore, But

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

Most people assume, correctly, that flowers look the way they do to attract insects that pollinate them.

But that's not the whole story. Scientists have now discovered that plants have another 'trick up their leaves' to make themselves (Answer: irresistible) to even the most choosy insect. Cambridge University's Beverley Glover and her (Answer: colleagues) recently set up some fake flowers filled with a sugar solution, which they kept at different temperatures. Unleashing a team of bumblebees on their floral (Answer: offerings), they watched as the insects visited the flowers to drink the surrogate nectar. Very quickly, it became obvious that the bees were concentrating on the flowers with the warmest nectar. Just in case it was something to (Answer: do) with the color of the fake flowers, the scientists also tried a different color (Answer: combination) and got the same result.

Choices:

1. irresistible, expensive, explicit, false
2. friends, counterparts, researchers, colleagues
3. contours, shapes, organisms, offerings
4. make, do, have, go
5. consequence, tone, combination, appearance

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.

Choices:

1. borders, expressions, characteristics, shapes
2. frame, subordinate, planet, comet
3. members, astronomers, parties, makers
4. denounce, detect, deflect, depict

Over the past two decades around a third of the world's mangrove swamps have been (Answer: converted) for human use, with many turned into valuable shrimp farms. In 2007 an economic study of such shrimp farms in Thailand showed that the commercial profits per hectare were \$9,632. If that were the only (Answer: factor), conversion would seem an excellent idea. However, proper (Answer: accounting) shows that for each hectare government subsidies formed \$8,412 of this figure and there were costs, too: \$1,000 for pollution and \$12,392 for losses to ecosystem services. These (Answer:

comprised) damage to the supply of foods and medicines that people had taken from the forest, the loss of habitats for fish, and less buffering against storms. And because a given shrimp farm only stays (Answer: productive) for three or four years, there was the additional cost of restoring them afterwards: if you do so with mangroves themselves, add another \$9,318 per hectare. The overall lesson is that what looks (Answer: beneficial) only does so because the profits are retained by the private sector, while the problems are spread out across society at large, appearing on no specific balance sheet.

Choices:

- 1.rearranged, exchanged, conserved, converted
- 2.index, element, choice, factor
- 3.accounting, percentage, aggregation, division
- 4.comprised, uneven, neglected, augmented
- 5.productive, interactive, distinctive, collective
- 6.beneficial, immediate, moderate, modest

Once an organization has its product to sell, it must then determine the appropriate price to sell it at. The price is set by (Answer: balancing) many factors including supply-and-demand, cost, desired profit competition, perceived value, and market behavior. Ultimately, the final price is (Answer: determined) by what the market is willing to (Answer: exchange) for the product. Pricing theory can be quite complex because so many factors influence what the purchaser decides is a fair (Answer: value). It also should be (Answer: noted) that, in addition to monetary exchange, price can be the exchange of goods or services as in a barter agreement, or an exchange of specific behavior, such as a vote in a political campaign.

Choices:

- 1.comparing, begetting, balancing, offsetting
- 2.collected, mitigated, determined, exhausted
- 3.consign, design, exchange, prepare
- 4.addition, shape, content, value
- 5.explained, enlarged, overrated, noted

People are spending twice as much time online compared to 10 years ago, fueled by increasing use of tablets and smartphones. The biggest increase has been (Answer: among) young adults, with time spent

online almost tripling from 10 hours and 24 minutes each week in 2005 to 27 hours and 36 minutes in 2014. In total, the average adult spends more than 20 hours online a week, which includes time spent on the internet at work. (Answer: Meanwhile) the average person spends 2.5 hours every week 'online while on the move' - away from their home, work or place of study. This is a five-fold (Answer: increase) from 2005, when the figure was just 30 minutes. Overall, the proportion of adults using the internet has risen by half - from six in ten in 2005 to almost nine in ten today, (Answer: according) to Ofcom's Media Use and Attitudes 2015 report, which questioned 1,890 adults aged 16 and over about their internet consumption habits.

Choices:

- 1.within, along, between, among
- 2.However, Despite, Unless, Meanwhile
- 3.increase, magnitude, grid, space
- 4.according, due, since, in addition

Clean water was very important to the Romans. Cities, towns and forts were built near springs. However, as Roman cities and towns grew, they needed to bring in water from (Answer: further afield). As the population grew, (Answer: so) did the need for clean water. Trying to shift (Answer: large volumes) of water underground in pipes was not possible as lead pipes would be too weak and bronze pipes would be too expensive. The Romans could not make cast iron pipes as the (Answer: techniques) for doing this were not known to them. If water could not be brought via pipes, the Romans decided to bring it overland in what were conduits. When the water got to the city, it was fed off into smaller bronze or ceramic pipes. To get the water to flow at an even (and slow) pace, conduits were built on a slight slope. Valleys were crossed by using aqueducts. One of the most famous of these is the Pont du Gard aqueduct at Nimes in southern France. Where possible, the Romans did take water through tunnels but the hills needed to be relatively small for this to be successful.

Choices:

- 1.different parts, these origins, further afield, specific sources
- 2.as well, so, how, thus
- 3.few loads, improper intakes, relative levels, large volumes
- 4.facilities, proportions, scales, techniques

To learn the speech of alchemy, an early form of chemistry in which people attempted to turn metals into gold, it helps to think back to a time when there was no science: no atomic number or weight, no

periodic chart, no list of elements. To the alchemists the (Answer: universe) was not made of leptons, bosons, gluons, and quarks. Instead it was made of substances, and one substance—say, walnut oil—could be just as (Answer: pure) as another—say, silver—even though modern (Answer: scientists) would say one is heterogeneous and the other homogeneous. Without knowledge of atomic structures, how would it be (Answer: possible) to tell elements from compounds?

Choices:

- 1.universe, metallurgy, material, spirit
- 2.all, completed, pure, wholesome
- 3.affidavits, laws, scientists, medicines
- 4.proper, necessary, capable, possible

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

Cells are now (Answer: acceptable) as a unifying concept. A cell is the smallest (Answer: unit) of structure and function. Thus, cells are the basic building blocks of all organisms. Cells vary in size. With few exceptions, individual cells are (Answer: so) small they cannot be seen unaided. In 1665, a British scientist named Robert Hooke observed cells for the (Answer: first) time using a microscope. A microscope is an instrument that magnifies an object. Most images of cells are taken with a microscope and are called micrographs.

Choices:

- 1.determined, interactive, claimed, acceptable
- 2.unification, uniting, unity, unit

3.much, ever, so, very

4.earliest, first, last, latest

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, distance, interface, width

2.has founded, founded, was founded, was found

3.volume, heart, column, facet

4.makes, making, make, made



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

A renewed interest in well-being, especially among baby boomers, as well as rising personal incomes, led to more spending on health and fitness in 2005. This prompted an (Answer: expansion) in the number of fitness and recreation centres across the country. Golf courses also (Answer: enjoyed) renewed success, as the sport increased in popularity, possibly the result of retiring baby boomers heading to the links. In 2005, (Answer: households) spent an average \$3,918 on recreation, up slightly from \$3,678 in 2004. Items included in the 2005 figure are: an average \$166 on sports and athletic equipment; \$665 to buy and (Answer: operate) recreational vehicles such as snowmobiles, bicycles and trailers; and \$299 for the use of sports and recreation facilities.

Choices:

- 1.expectation, exception, erosion, expansion
- 2.allowed, enjoyed, portioned, confiscated
- 3.households, countries, companies, immigrants
- 4.demount, operate, duplicate, fund

The universality of story feature films are narratives - they tell stories. Even films based on (Answer: true) events will fictionalize them in order to produce drama, to telescope time, to avoid being filled up with too many (Answer: minor) characters ,or simply to be more entertaining. Even in the current welter of special-effect movies, feature films are usually summarized by their plots - in their first 'treatment' (or outline of the script idea), in the advance publicity, in the TV guide, in reviews, and in conversations. Films may differ from other (Answer: kinds) of narrative - literary fiction or television drama, for instance - in the medium used and the representational conventions. They do, however, (Answer: share) with literary fiction and television drama the basic structure and functions of narrative. Much work has been done by researchers in the field known as 'narratology' on exactly what constitutes the structures and functions of the narrative. Their conclusions are of great use to students of the feature film.

Choices:

- 1.prehistoric, common, true, harsh
- 2.minor, objective, sheer, marginalized
- 3.amounts, kinds, properties, qualities
- 4.spare, share, abide, conform

No matter whether you speak English or Urdu, Waloon or Waziri, Portuguese or Persian, the roots of your language are the same. Proto-Indo-European (PIE) is the mother tongue — shared by several hundred contemporary languages, as well as many now extinct, and spoken by people (Answer: who) lived from about 6,000 to 3,500 BC on the steppes to the north of the Caspian Sea. They left no written texts and (Answer: although) historical linguists have, since the 19th century, painstakingly reconstructed the language from daughter languages, the question of how it actually sounded was assumed to be permanently out of reach. Now, researchers at the Universities of Cambridge and Oxford have developed a sound-based method to move back through the family tree of languages that stem from PIE. They can simulate how certain words (Answer: would have sounded) when they were spoken 8,000 years ago. Remarkably, at the (Answer: heart) of the technology is the statistics of shape. 'Sounds have shape,' explains Professor John Aston, from Cambridge's Statistical Laboratory. 'As a word is uttered it vibrates air, and the shape of this soundwave can be measured and turned into a series of numbers. Once we have these stats, and the stats of another spoken word, we can start asking how similar they are and what it would take to shift from one to another.'

Choices:

1. where, which, what, who
2. despite, until, however, although
3. would have sounded, would sound, have sounded, sound
4. cost, heart, end, moment

We now know through the work of neuroscientists that the human brain is wired to mimic other people, and this mimicry involves actual involuntary physiological (Answer: experience) in the observer. Human beings tend to (Answer: imitate) actions that they see. Physiologically, our brains include mirror neurons, which (Answer: react) to actions that are seen as if we are doing the action ourselves. It is largely an unconscious and automatic experience. When we hear people speak, observe their vocal (Answer: nuances), watch their posture, gestures, and facial expressions, etc, neural networks in our brains are stimulated by the 'shared representations' generating feelings within us that (Answer: reflect) the experience of those we are observing.

Choices:

1. emotion, experience, expression, expectation
2. observe, imitate, limit, discipline
3. recover, refer, react, reflect
4. cords, nuances, volumes, shapes
5. circle, multiply, reflect, subscribe

London's National Portrait Gallery is currently celebrating the fifty-year (Answer: career) of photographer Sandra Lousada. The twenty one portraits on display depict key (Answer: figures) in literature, film and fashion from the early 1960s. Subsequent to the acquisition of forty portraits by Lousada, the display at The National Portrait Gallery highlights shots taken between 1960 and 1964, many of which feature in Lousada's book *Public Faces Private Places* (2008). Formal commissioned portraits are shown alongside behind-the-scenes photographs taken on film (Answer: sets) and unguarded portraits of sitters captured at home.

Choices:

- 1.invitation, promotion, training, career
- 2.figures, gadgets, fashions, genres
- 3.gists, sets, tickets, aisles

Gauss was a child prodigy. There are many (Answer: anecdotes) concerning his precocity as a child, and he made his first ground-breaking mathematical (Answer: discoveries) while still a teenager. At just three years old, he (Answer: corrected) an error in his father's payroll calculations, and he was looking after his father's accounts on a regular basis by the age of 5. At the age of 7, he is reported to have amazed his teachers by summing the integers from 1 to 100 almost instantly (having quickly spotted that the sum was actually 50 pairs of numbers, with each pair summing to 101, total 5,050). By the age of 12, he was already attending gymnasium and criticizing Euclid's geometry.

Choices:

- 1.denials, genres, hypotheses, anecdotes
- 2.patents, discoveries, sketches, exaggerations
- 3.indulged, circumscribed, corrected, created



READING FILL IN THE BLANKS



These fascinating questions and more will be revealed by University of Manchester scientists when they take to the road on their 'Brain Bus'. The bus is taking hands on (Answer: activities) to test the senses to the suburbs, to show young and old alike how the brain works and how science can answer some of life's most captivating questions. Organiser Dr Stuart Allan, lecturer at the Faculty of Life Sciences, explains: "Three-year-olds and upwards can understand the senses and it's an area that is (Answer: intriguing) to all ages. "It takes effort to get out of bed on a Saturday morning and go to the Museum. We are bringing science to your doorstep and going further afield this year in the hope of finding new and different (Answer: audiences). "We want people to see that science is interesting as well as important in our lives, and to (Answer: encourage) people who may not consider it possible to go to University."

Choices:

activities, intriguing, challenging, categorize, schemes, encourage, audiences, groups

The theme of contrast evident in Blue Skies is typical of Ms Vu's work. She explores organic structures using the newest technologies. She is inspired by (Answer: minute) detail but often works on a large scale. Her sculptures are (Answer: ambiguous), yet familiar, blurring the boundaries between the real and the artificial. Organic structures and spirals are the starting point for my creative exploration. But my work extends these concepts to (Answer: explore) the overlap between the real and the artificial, and how we often don't differentiate between the two,' Ms Vu said.

Choices:

high, minute, definite, ambiguous, explore, envisage

Since Austria sits at a high elevation and spends a quarter of the year under (Answer: snow), it should come as no surprise that heating is a matter of considerable importance in the (Answer: country). What may be surprising, however, is that Vienna — a grand imperial city of music, art, and history — actually boasts a museum (Answer: dedicated) specifically to heating systems.

Choices:

snow, shadow, extent, dedicated, summarized, country

The wrist watch works by (Answer: tracking) information such as a person's pulse or movement. When it (Answer: detects) a change in a person's health, the watch sends information to a touchscreen hub

(Answer: located) in the home. The hub then (Answer: alerts) pre-determined contacts and calls for help immediately.

Choices:

administer, detects, hoisted, healthy, decides, located, tracking, alerts

Mercury is not found in many common products that we buy because it can be very dangerous. The most common products that (Answer: contain) mercury are batteries, powerful outdoor lights, disinfectants and thermometers, which are used to measure our body's temperature. It can also be found in barometers, which are used to measure air pressure and (Answer: show) changes in weather, and thermostats, which (Answer: regulate) the temperature of buildings. Mercury can also be found in printer and photocopy toners.

Choices:

fix, cover, constrain, regulate, contain, show

For lots of first-year students, the University may be their first experience living away from home for an (Answer: extended) period. It is a (Answer: definite) break from home. In my point of view, this is the best thing that you can do. I know you have to fend for yourself, cook and clean after yourself, basically look after yourself without your parents but the truth is some time in your life you are going to have to part with lovely Mummy and Daddy. But they are only just a phone call away, and it is really good to have some QUALITY TIME without them. The first few weeks can be a (Answer: lonely) period. There may be concerns about forming the friendship. When new students look around, it may seem that everyone else is self-confident and (Answer: socially) successful! The reality is that everyone has the same concerns. Increased personal freedom can feel both wonderful and (Answer: frightening). Students can come and go as they choose with no one to hassle them. The strange environment with new kinds of procedures and new people can create the sense of being on an emotional roller coaster. This is normal and to be expected. You meet so many more people in the halls than if you stayed at home. The main points about living away from home are NO PARENTS! You don't have to tell them where you're going, who you're going with, what time you'll be coming, why you're going etc. You learn various social skills. You have to get along with your roommates. Living with them can present special, sometimes intense, problems. Negotiating respect of personal property, personal space, sleep, and relaxation needs, can be a complex task. The complexity increases when roommates are of different (Answer: backgrounds) with very different values. It is unrealistic to expect that roommates will be best friends. Meaningful, new relationships should not be expected to develop overnight. It took a great deal of time to develop intimacy in high school friendships; the same will be true of intimacy in university friendships. You have a phone! So if you ever get homesick or miss you, Mummy, then she's always at the end of a phone-line for you and so are your friends.

Choices:

timely, natural, exciting, frightening, easily, extra, backgrounds, socially, definite, lonely, extended

The rest of Taylor's restaurant is student-run. Students in quantity food production and service management (Answer: classes) make the articulate and detailed dishes. "We teach students to understand where a product comes from and to respect that product," Garmy said. Skeptics might doubt the (Answer: quality) of a student-run restaurant, but one visit to Taylor's will immediately change their outlook. Dishes such as orecchiette and butternut squash, pappardelle with duck and bistro chicken will please any appetite while imparting the need to (Answer: return) for a second taste. Students are taught to use ratios and proportions rather than recipes when creating dishes. "Understanding ratios and proportions when creating dishes instead of recipes makes students think and (Answer: actually) teaches them how to cook, rather than just reading a recipe and not learning from it," Garmy said. Garmy said he believes in using all aspects of a product, which Taylor's (Answer: menu) reflects.

Choices:

actually, quality, sign, separately, classes, register, menu, return, quantity, rosters

Your body is nearly two-thirds water. And so it is really important that you (Answer: consume)

enough fluid to stay (Answer: hydrated) and healthy. If you don't get enough fluid you may feel (Answer: tired), get (Answer: headaches), and not perform at your best.

Choices:

enlist, headaches, tired, varied, hydrated, consume, humble, hardness

By the 1820s Bentham had become a well-known (Answer: figure), both in Britain and in other parts of the world. His ideas were to 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 directions in his will, Bentham's body was dissected by his friend, the surgeon Thomas Southwood Smith, and his skeleton was (Answer: 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 run to some eighty volumes. Members of the public are invited to assist in

this massive editorial task by helping to (Answer: transcribe) Bentham's manuscripts via Transcribe Bentham.

Choices:

envisaged, figure, transcribe, among, preserved, of, transcend, characteristic

A herbal is a book of plants, describing their appearance, their properties and how they may be used for preparing ointments and medicines. The medical use of plants is (Answer: recorded) on fragments of papyrus and clay tablets from ancient Egypt, Samaria and China that date back 5,000 years but document traditions far older still. Over 700 herbal remedies were detailed in the Papyrus Ebers, an Egyptian text written in 1500 BC. Around 65 BC, a Greek physician called Dioscorides wrote a herbal that was (Answer: translated) into Latin and Arabic. Known as 'De materia medica', it became the most influential work on medicinal plants in both Christian and Islamic worlds until the late 17th century. An illustrated manuscript copy of the text made in Constantinople (modern-day Istanbul) (Answer: survives) from the sixth century. The first printed herbals date from the dawn of European printing in the 1480s. They provided valuable information for apothecaries, whose job was to make the pills and potions (Answer: prescribed) by physicians. In the next century, landmark herbals were produced in England by William Turner, considered to be the father of British botany, and John Gerard, whose illustrations would inspire the floral fabric, wallpaper and tile designs of William Morris four centuries later.

Choices:

prescribed, translated, recorded, initiated, removed, survives, discovered, suffers



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, eating, 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

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

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

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, range, argument, civilization, period, urbanization, possibility

A Graphic Introduction was put together by northern artists, who have (Answer: interpreted) discussions with scientists from the Supergen Bioenergy Hub in a (Answer: series) of striking images which imagine alternative futures and explain some of the technology (Answer: involved) and how it might be put into practice.

Choices:

involved, dreamed, discriminated, interpreted, forsook, system, series

The speed of sound (otherwise known as Mach 1) varies with temperature. At sea level on a 'standard day', the temperature is 59°F, and Mach 1 is approximately 761 mph. As the altitude increases, the temperature and speed of sound (Answer: both) decrease until about 36,000 feet, after which the temperature (Answer: remains) steady until about 60,000 feet. Within that 36,000 – 60,000 foot range, Mach 1 is about 661 mph. Because of the (Answer: variation), it is possible for an airplane flying supersonic at high altitude to be slower than a subsonic flight at sea level. The transonic band (the 'sound barrier') extends (Answer: from) around Mach 0.8 — when the first supersonic shock waves form on the wing — to Mach 1.2, when the entire wing has gone supersonic.

Choices:

via, towards, both, from, variation, differences, either, remains, tends

Many tests have shown that, in a very broad way, peoples in most parts of the world have similar color preferences. Blue is the most preferred and popular hue, followed in order by red, green, purple, yellow and orange. Overlying this basic order of color preference, (Answer: however), are the responses of individuals, which of course vary (Answer: widely) and may also be very powerful. Children are likely to have strong preferences for some colors and aversions to others, but sometimes will not admit to them, since outside (Answer: factors) may be influential in determining both color preferences and the way

that they are expressed or suppressed. Current fashions in clothes and accessories, gender-stereotyping and peer-group pressure may all play a significant part. Boys in particular may be reluctant to admit to any strong preferences for colors (Answer: other than) those of favorite football teams, because color awareness may be regarded by their peer-group as feminine.

Choices:

widely, however, other than, therefore, factors, thoroughly, counters, rather than

Over the past two decades around a third of the world's mangrove swamps have been (Answer: converted) for human use, with many turned into valuable shrimp farms. In 2007 an economic study of such shrimp farms in Thailand showed that the commercial profits per hectare were \$9,632. If that were the only factor, conversion would seem an excellent idea. However, proper (Answer: accounting) shows that for each hectare government subsidies formed \$8,412 of this figure and there were costs, too: \$1,000 for pollution and \$12,392 for losses to ecosystem services. These (Answer: comprised) damage to the supply of foods and medicines that people had taken from the forest, the loss of habitats for fish, and less buffering against storms. And because a given shrimp farm only stays (Answer: productive) for three or four years, there was the additional cost of restoring them afterwards.

Choices:

regenerating, study, estimated, accounting, productivity, productive, converted, comprised

Of the more than 1,000 bat species worldwide, 22 are (Answer: native) to North America. And while there are no pollinator bats in our area, gardeners should (Answer: champion) those that do live here, because they're insectivorous. These bats (Answer: consume) moths, beetles and mosquitoes, and can eat up to 500 mosquito-sized insects per hour. They also protect gardens and crops from such (Answer: pests) as cucumber beetles, cutworms and leafhoppers.

Choices:

consume, champion, preys, objective, besiege, pests, native

The ruins of the South Fremantle Power Station have stood empty since 1985, home only to urban explorers and street (Answer: artists). Opened in 1951, the power station was once a pillar of progress for the expanding energy (Answer: demands) of Perth. Here it stood proud and strong for 34 years, supplying energy to its surrounding metropolis until 1985 when it was deemed to no longer be worth the (Answer: money).

Choices:

ratings, status, demands, collectors, artists, money

John Milton wrote in a wide range of genres, in (Answer: several) languages, and on an extraordinary range of subjects. His was a more general (Answer: education) than is offered at Cambridge these days, and it continued after his seven years here, equipping him with the tools to write some of the most (Answer: groundbreaking) literature ever seen, and to engage as a polemicist on many different social, political, and theological (Answer: questions).

Choices:

several, questions, groundbreaking, simulations, mediocre, education

Green spaces (Answer: contribute) significantly to a (Answer: reduction) of soil and aerial temperatures during spells of hot weather, so contributing to human wellbeing. In the garden (Answer: context), there is, however, little information as to what extent various types of plants (Answer: differ) in their cooling potential and how certain planting combinations may maximize cooling under a scenario of (Answer: low) rainfall and minimal water inputs.

Choices:

addition, focus, background, low, differ, context, massive, reduction, contribute

Egg-eating snakes are a small group of snakes whose (Answer: diet) consists only of eggs. Some eat only small eggs, which they have to swallow (Answer: whole), as the snake has no teeth. Instead, some other snakes eat bigger eggs, but it requires special (Answer: treatment). These snakes have spines that stick (Answer: out) from the backbone. The spines crack the egg (Answer: open) as it passes through the throat.

Choices:

saliva, part, open, taste, diet, whole, treatment, out

Having tracked down research that is (Answer: relevant) to your area of interest, the next task is to

actually (Answer: make sense) of that research. This section is intended to show you how to be critical of the research you (Answer: are reviewing) and how to check that the (Answer: evidence) is credible and represented appropriately. Unfortunately this means discussing the ways in which research findings may be misrepresented.

Choices:

Make sense, have fun, statement, are reviewing, acceptable, relevant, evidence

The transitions which occurred in Britain around 100 BC, and after 43 AD (when the Roman Army (Answer: invaded) Britain) represent the key points of socio-economic trend in Britain's past. During the first century BC, the traditional communal form of life (Answer: shifted) rapidly to a world where certain individuals became more important. During the first century AD, Britain (Answer: became) fully a part of the Roman Empire.

Choices:

invaded, shifted, became, entailed, enlarged, change, transferred

For birdwatchers in southern New Mexico, September can be highly entertaining. Good numbers of many diverse (Answer: species) are on the move during this time, (Answer: traveling) southward from northern (Answer: breeding) grounds to places they will spend the winter, and there's always a (Answer: chance) that some rare or unusual birds will turn up.

Choices:

genes, chance, breeding, warmer, species, quantity, traveling

Electric eels are born to shock. Thanks to cells called electrocytes which, stacked like batteries, make up 80% of their bodies, these cunning South American (Answer: hunters) can deliver debilitating blows of up to 600 volts to their prey. But they've harnessed their electricity to pack even bigger punches. Last year, Vanderbilt University biologist Kenneth Catania revealed electric eels bring their positively charged head and negatively charged (Answer: tail) closer together to generate a more powerful (Answer: current).

Choices:

objects, current, limb, hunters, tail, engine

At the end of the last ice age, the melting ice disrupted the ocean currents in the North Atlantic and (Answer: caused) a drop in temperature of almost 5 degrees. Even (Answer: though) the rest of the planet was warming (Answer: up), the North Atlantic region remained in a cold period for 1300 years. The same thing happened (Answer: around) 8000 years ago, when the cooling lasted about a hundred years, and it (Answer: could) happen again today. Even a short period of cooling in the North Atlantic could have a dramatic effect on the wildlife, and the human populations, living there.

Choices:

forwent, up, never, caused, could, around, though, thorough

London's National Portrait Gallery is currently celebrating the fifty-year (Answer: career) of photographer Sandra Lousada. The twenty-one portraits on display depict key (Answer: figures) in literature, film and fashion from the early 1960s. Subsequent to the acquisition of forty portraits by Lousada, the (Answer: display) at The National Portrait Gallery highlights shots taken between 1960 and 1964, many of which feature in Lousada's book *Public Faces Private Places* (2008). Formal commissioned portraits are shown alongside behind-the-scenes photographs taken on film (Answer: sets) and unguarded portraits of sitters captured at home.

Choices:

sets, elements, birthday, career, figures, cinemas, display, pictures

Carbon prices in the European Union also reached their highest level in a decade this summer following a series of (Answer: reforms) meant to limit the oversupply of (Answer: credits) and expand many industries subjected to the cap. The biggest development of all may be in China, the world's largest greenhouse gas emitter, which has taken steps toward its own (Answer: emissions) trading program. China's move has the (Answer: potential) to narrow the gap between global carbon prices and climate costs to 63 percent in the early 2020s, OECD found.

Choices:

missions, reforms, potential, emissions, points, revolutions, credits

With the increase in women's (Answer: participation) in the labor force, many mothers have less time

(Answer: available) to undertake domestic activities. At the same time, there has been increasing (Answer: recognition) that the father's (Answer: relationship) with a child is important. A father can have many (Answer: roles) in the family, ranging from income provider to teacher, carer, and playmate. Therefore, balancing paid work and family responsibilities can be an important issue for both fathers and mothers in families.

Choices:

relationship, efficient, roles, separation, shares, participation, recognition, available

In the preceding hundred years, Paris had been (Answer: center) stage for political and social (Answer: movements) that had deeply affected all of Europe. The many ways in which tradition had already been challenged and (Answer: shaken) during those years helped make it easier for those to achieve a break with tradition art.

Choices:

movements, rehearsals, concocted, shaken, overhead, center

So some of the time an intellectual challenge is to assimilate how similar we can be to other species. In other cases the challenge is to appreciate how, though human physiology (Answer: resembles) that of other species, we use the physiology in novel ways. We activate the classical physiology of vigilance while watching a scary movie. We activate a (Answer: stress) response when thinking about mortality. We secrete hormones related to nurturing and social bonding, but in response to an adorable baby panda. And this certainly (Answer: applies) to aggression — we use the same muscles as does a male chimp attacking a sexual competitor, but we use them to harm someone because of their ideology.

Choices:

fakes, applies, conforms, resembles, stress, ease

The recipe for making any creature is written in its DNA. So last November when geneticists published the near-complete DNA sequence of the long-extinct woolly mammoth, there was much (Answer: speculation) about whether we could bring this behemoth back to life. Creating a living, breathing creature from a genome sequence that exists only in a computer's memory is not possible right now. But someone someday is sure to try it, (Answer: predicts) Stephan Schuster, a molecular biologist at Pennsylvania State University, University Park, and a (Answer: driving) force behind the mammoth genome project.

Choices:

running, predicts, driving, lament, singular, speculation

E-Learning is the new way forward. We believe (Answer: passionately) in E-Learning. Our innovative approach opens up new (Answer: opportunities) for busy professionals that simply did not previously exist — the (Answer: chance) to combine a prestigious Masters programme with a demanding professional and personal (Answer: life). Our small virtual classrooms facilitate intensive (Answer: interaction) and collaboration among professionals from all over the world.

Choices:

investment, opportunities, interaction, passionately, course, life, proportionately, chance

Eutrophication is a process when bodies of water (Answer: accumulate) to a high nutrient level due to extensive fertilizer in the soil. The water becomes overly enriched with minerals and nutrients which induce excessive (Answer: blooms) of algae and other aquatic species which may (Answer: deplete) minerals in the water, and thus endanger other species.

Choices:

fatigue, reach, deplete, accumulate, destroy, maximize, blooms, oust

To invest, you need to (Answer: draw up) a clear plan, do your own research, (Answer: build in) a margin of safety by always thinking about the (Answer: valuation) and, ultimately, be patient. By all means include some speculative picks if you (Answer: wish), but ensure they are only a small part of your portfolio. Looking for an oil explorer whose shares double, treble and double again is exciting but such firms are very (Answer: rare). There are a lot more which have a consistent record of paying out the dividends which really make the markets work for you, once they are reinvested.

Choices:

wish, valuation, build in, rare, violation, crash out, draw up, grow up, rear

Houston is the fifth-largest metropolitan area in the United States and has an outsized (Answer: impact)

on the U.S. economy. More than 90 percent of U.S. offshore oil and gas (Answer: production) takes place in the Texas Gulf Coast area, and the Houston region contains the largest (Answer: concentration) of energy, petrochemical, and refining industries in the United States. Houston is home to 25 percent of the country's petroleum refining capability, 40 percent of the nation's capacity for downstream chemical production, and the fastest-growing liquefied natural gas industry in the nation.

Choices:

pollution, impact, classification, production, concentration, impetus

For two decades, leading up to the millennium, global demand for food (Answer: increased) steadily, along with growth in the world's population, record harvests, (Answer: improvements) in incomes, and the diversification of diets. As a result, food prices continued to (Answer: decline) through 2000. But beginning in 2004, prices for most grains began to rise. Rising production could not keep pace with the even (Answer: stronger) growth in demand.

Choices:

deteriorations, improvements, stronger, increased, decline, fluctuate, dipped

Researchers suggest the following tips as you begin to network, seek common ground, (Answer: engage) with your network regularly, and consistently (Answer: apply) yourself to making your network work or it will wither. It is a skill that you need to (Answer: practice), not a talent.

Choices:

direct, apply, engage, concentrate, practice

Research is a process of investigation leading to new (Answer: insights) effectively shared and is central to the (Answer: purpose) of any university. Students have the right to be taught by acknowledged (Answer: experts) in their field, which requires that staff members operate at the most advanced level appropriate to their (Answer: discipline) and level. Research is, therefore, crucial to a (Answer: positive) student experience from further education to doctoral development.

Choices:

equivocal, discipline, experts, novices, discretion, positive, purpose, insights, result

Deforestation can disrupt the lives of local communities, sometimes with (Answer: devastating) consequences . Forests provide a vast array of (Answer: resources) to all of us, including food, wood, medicine, fresh water, and the air we breathe. Without the trees, species can disappear, the natural water balance can become disrupted and the ecosystem that supports the human population can fall (Answer: apart).

Choices:

facilities, benign, resources, off, apart, devastating, prerequisites, consequences

Dance has played an important role in many musicals. In some (Answer: cases), dance numbers are included as an excuse to add to the color and spectacle of the show, but dance is more effective when it forms an integral part of the (Answer: plot). An early example is Richard Rodgers On Your Toes(1936) in which the story about classical ballet meeting the world of jazz enabled dance to be introduced in a way that (Answer: enhances), rather than interrupts the drama.

Choices:

punctuates, plot, itineraries, judgement, enhances, cases

Talking is not just an activity of the vocal (Answer: cords), it is a way of connecting with ourselves and (Answer: others) that creates a culture of health and (Answer: well-being). Specifically, speaking with healthcare (Answer: practitioners) about health worries, and more generally opening up to create more and stronger social (Answer: ties), can have many positive benefits.

Choices:

others, well-being, foreigners, practitioners, ties, operations, bureaucrats, medicine, cords, tracts

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 (Answer: 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 understanding the consequences.

Choices:

incompetent, function, provision, refused, ignored, explanations, prerequisites

While accounting focuses on the day-to-day management of financial (Answer: reports) and records across the business world, finance uses this same information to project future growth and to (Answer: analyze) expenditure in order to strategize company finances. So finance degree students will likely be more interested in financial (Answer: strategy) and control, while accounting degree students will be more focused on professional (Answer: principles) and processes, used in order to manage numbers rather than (Answer: influence) them.

Choices:

analyze, credits, exceptions, allegation, reports, principles, strategy, influence, indicate

Some students say that they need complete quiet to read and study. Others study best in a crowded, noisy room because the noise actually (Answer: helps) them concentrate. Some students like quiet music playing; (Answer: others) do not. The point is, you should know the level of noise that is optimal for your own studying. However, one general rule for all students is that the television seems to be more of a distraction than music or other background noise, so (Answer: leave) the TV off when you are reading or studying. (Answer: Also), don't let yourself become distracted by computer games, email, or Internet surfing.

Choices:

leads, others, remain, leave, counterparts, Also, However, helps

It is important to keep the quantities here in perspective. The (Answer: volume) of radioactive waste is very small - even smaller if the used (Answer: material) is chemically re-processed - but it has to be (Answer: managed) carefully. Most countries (Answer: accept) that they are responsible for their own and a number including France, Sweden, Finland, Korea and the USA are now constructing facilities, which will eventually be deep geological repositories.

Choices:

matter, produced, material, managed, coverage, receive, volume, accept

The University of Maryland boasts 78 academic programs (Answer: ranked) in the top 25 nationally and 29 academic programs in the top 10 according to U.S. News and World report. By drawing top-notch faculty, attracting the brightest students and (Answer: investing) in the quality of our academic programs, we are a force to (Answer: reckon) with on a national (Answer: basis).

Choices:

perspective, agree, reckon, investing, ranked, participating, basis, ranged

The (Answer: closing) decades of an artist's life do not generally make the biographer's heart beat faster, but Claude Monet is one of a handful of painters who bucks the pattern of an (Answer: irrelevant) old age. While it's true that by the time he was 73 he had (Answer: accumulated) all the usual dragging baggage – outhouses full of fancy cars, a taste for expensive wine and a sprawl of dependents – it was also now that he produced career-defining work.

Choices:

accumulated, inspired, early, irrelevant, closing, missing

Like the sea turtles, we are (Answer: drawn) to the bright lights of our phones, tablets, laptops, and TVs, our minds and bodies becoming (Answer: disoriented) as we lose focus and direction. Each day, we are (Answer: torn) between the value of tech and the cost to our health.

Choices:

disoriented, drawn, torn, dislocated, juggling, dawn, disinterested

At the height of summer the Antarctic, tourist ships move gently around the coast. Even 30 years ago such sights would have been unthinkable, but today people are willing to pay large sums of money to see the last real wilderness in the world. In the Arctic, careless human exploitation (Answer: in the past) has damaged the fragile ecosystem. Today concerned governments are trying to find ways to develop the region (Answer: while) caring for the very special natural environment. (Answer: Because) the Antarctic is less accessible than the Arctic, it is still largely undamaged by humans, although holes in the ozone layer above the Antarctic (Answer: have already been) discovered. Many people believe that one way to preserve the area is to make the whole region into a world park, with every form of exploitation internationally (Answer: banned).

Choices:

whereas, have already been, in the future, is to be, while, Except, Because, in the past, banned, infested





REORDER PARAGRAPHS



- 1) Opals can be seen embedded in the walls of some of these hotel rooms.
- 2) While Aboriginal people have long inhabited the area, miners first moved to Coober Pedy in 1916 after the discovery of opal in the surrounding rocks.
- 3) As a result of the intense heat, a number of miners living in town have chosen to live underground.
- 4) Among the local public buildings found underground are three churches, a bookstore, an art gallery, a bar, and hotels.
- 5) This has continued with much of the modern town being built underground.

Answer – 2,3,5,4,1

- 1) Today there are nine intelligences, and the possibility of others may eventually expand the list.
- 2) Many of us are familiar with three broad categories in which people learn: visual learning, auditory learning, and kinesthetic learning.
- 3) Beyond these three categories, many theories of and approaches toward human learning potential have been established.
- 4) Gardner's early work in psychology and later in human cognition and human potential led to his development of the initial six intelligences.
- 5) Among them is the theory of multiple intelligences developed by Howard Gardner, Ph.D., John H. and Elisabeth A. Hobbs Research Professor of Cognition and Education at the Harvard Graduate School of Education at Harvard University.

Answer – 2,3,5,4,1

- 1) Although a few plants and animals can make do with saltwater, all humans need a constant supply of fresh water if they are to stay fit and healthy.
- 2) Without water, people, animals and plants cannot live.
- 3) Of the total supply of water on the Earth, only about 3 percent of it is fresh, and most of that is stored as ice and snow at the poles, or is so deep under the surface of the Earth that we cannot get to it.
- 4) Everybody needs fresh water.

Answer – 4,2,1,3

- 1) And they found that crabs that experienced an electric shock when they hid under a safe, dark rock would eventually learn to avoid the hiding place.
- 2) Scientists at Queen's University in Belfast now think that crustaceans may be more sensitive to pain than previously thought.
- 3) The last time you splurged on a live lobster for dinner, you might not have given any thought to how much the little guy was going to suffer as he boiled to death.
- 4) Until recently many researchers believed the crustacean nervous system too primitive to process pain.

Answer – 3,4,2,1

- 1) Inspired by Pythagoras, he founded his Academy in Athens in 387 BC, where he stressed mathematics as a way of understanding more about reality.
- 2) The sign above the Academy entrance read: 'Let no-one ignorant of geometry enter here'.
- 3) In particular, he was convinced that geometry was the key to unlocking the secrets of the universe.
- 4) Although usually remembered today as a philosopher, Plato was also one of ancient Greece's most important patrons of mathematics.

Answer – 4,1,3,2

- 1) Scientists have known for over a decade that the West Antarctic Ice Sheet has been losing mass and contributing to sea level rise.
- 2) Despite its huge size and importance, conflicting results have been published on the recent behavior of the East Antarctic Ice Sheet.
- 3) A study led by a group of NASA scientists, that was published in 2015, suggested that this part of Antarctica was gaining so much mass that it compensated for the losses in the west.
- 4) Its eastern neighbor is, however, ten times larger and has the potential to raise the global sea level by some 50 meters.

Answer – 1,4,2,3

- 1) They create recognizable worlds with troubling relevance to human behavior and social themes.
- 2) Thornton Wilder and Tennessee Williams, on the one hand, and Bertolt Brecht and Samuel Beckett, on the other, are playwrights with very different approaches to empathy and aesthetic distance.
- 3) Others dismiss the "illusion of the real" to engage us in political arguments or absurdist metaphors.

- 4) Playwrights come to their craft with different aesthetic sensibilities.
- 5) However, these writers have in common their means of artistic expression - the play.

Answer – 4,1,3,2,5

- 1) English (and Dutch) farmers were the most productive farmers of the century and were continually adopting new methods of farming and experimenting with new types of vegetables and grains.
- 2) In other words, many English farmers were treating farming as a science, and all this interest eventually resulted in greater yields.
- 3) Historians are now agreed that beginning in the 17th century and continuing throughout the 18th century, England witnessed an agricultural revolution.
- 4) They also learned a great deal about manure and other fertilizers.

Answer – 3,1,4,2

- 1) Photogrammetry involves taking hundreds of photos of an object at slightly different angles and 'stitching' them together to create an interactive digital 3D model.
- 2) Now the same technology is being used to create virtual replicas of artifacts within the University's museum's collections, including an ancient Egyptian mummified cat, prehistoric skulls and ancient Greek pottery.
- 3) Photogrammetry lets the public and students get to see them close-up and in very high detail.
- 4) The process is already being used by the University of Aberdeen's anatomy department to create digital models of organs and other body parts to aid teaching and learning for young doctors.
- 5) These artifacts are rarely handled as they are so fragile.

Answer – 1,4,2,5,3

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

Answer – 3,2,4,1

- 1) Giant pandas are not biologically herbivores, but for some reason they developed a taste for bamboo about 6,000 years ago and stopped eating a varied diet, including meat.
- 2) Pandas are the most expensive animal to keep in a zoo, costing about five times as much as an elephant.
- 3) Food alone is a logistical headache.
- 4) Bamboo, however, is low in nutrients and difficult to digest, which means pandas have to eat a lot and then rest.

Answer – 2,3,1,4

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

Answer – 2,3,1,4

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

Answer – 2,4,3,1

- 1) Choices must similarly be made about which aspects of the past should be formally taught to the next generation in the shape of school history lessons.
- 2) They cannot put in everything: choices have to be made.

3) What history books tell us about the past is not everything that happened, but what historians have selected.

4) History is selective.

Answer – 4,3,2,1

1) "We arrived around lunchtime and as soon as I crawled under I could immediately see that there was far more than a 'few,'" the post said.

2) The company ended up removing 45 rattlesnakes from beneath the house.

3) Big Country Snake Removal responded to a home in Albany, Texas, after a man who was trying to restore his cable, climbed under the house and saw some snakes.

4) "He saw a 'few' snakes and quickly crawled out," said a post on Big Country Snake Removal's Facebook page.

Answer – 3,4,1,2

1) The longer a child can resist the temptation has been correlated with higher general competency later in life.

2) The child is told: if you don't eat this treat for 15 minutes you can have both this one and a second one.

3) Kids on average wait for five or six minutes before eating the marshmallow.

4) A four-to-six-year-old child sits alone in a room at a table facing a marshmallow on a plate.

Answer – 4,2,3,1

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

2) One of the common ways is open days.

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

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

Answer – 3,2,1,4

1) They protect children from getting and spreading diseases that can make them very sick.

2) For this reason, we require children aged 2-months to 18-years old who are entering or attending child care, public school, or private school be vaccinated against certain diseases.

3) A healthy school setting gives all students the best chance to learn and grow.

4) Vaccines are very important to this effort.

Answer – 3,4,1,2

1) Sometimes, the infant was dressed in blue and was called Adam and sometimes it was dressed in pink and was called Beth.

2) There were three toys in the room: a train (boy stereotype), a doll (girl stereotype) and a fish (neutral).

3) The research by Will and colleagues dressed 6-month-old babies in different colored outfits that did not necessarily match their gender, so the participants had no way of knowing if the baby was in fact a boy or a girl.

4) This study found that babies dressed in blue and thought to be boys were more likely to be given the train.

5) Babies in pink or 'girls' were more likely to be given the doll and more people smiled at 'Beth' than at 'Adam'.

Answer – 3,1,2,4,5

1) Around the world, wind in valleys generally travels up the valley, and up the sides of mountains, during the day.

2) This is often driven by differences in pressure caused by the slopes of the mountains and the shape of the valleys.

3) Around 1 billion people depend on water resources originating from the Hindu-Kush Karakoram Himalayan region, attributable to both rainfall and melting of snow and ice.

4) The wind in the valleys in the region plays an important role in transporting clouds and moisture and redistributing snow in the valleys, and so understanding what drives this wind is crucial.

Answer – 3,4,1,2

1) In addition, researchers and scuba divers have observed sea turtles respond to the stimulation of being touched on the skin of their head and their flippers.

2) The bony shell of a sea turtle can actually sense when something touches it.

- 3) The nerves do not contain pain receptors so scientists do not think sea turtles feel pain when touched on the shell, but these thin nerves could transmit information to other parts of the sea turtle's body.
- 4) A series of thin nerves run along the shell and detect pressure changes associated with touch.

Answer – 2,4,3,1

- 1) The brain is our most treasured possession.
- 2) It coordinates our movements, our words, our relationships, and the ability to pass on our genes.
- 3) The barrier serves a vital role, but it also poses a tremendous challenge for scientists developing drugs to treat brain-based disorders.
- 4) Our body therefore protects the organ fiercely: The central nervous system polices particles traveling through the bloodstream and invites only the safest into our cognitive chamber.
- 5) This selective process occurs due to a proactive boundary known as the blood-brain barrier.

Answer – 1,2,4,5,3

- 1) The American mink has been present in Iceland since the 1930's and despite heavy hunting since 1939 the species has become well established.
- 2) Iceland is therefore an ideal place to study undisturbed feeding behaviour and ecology of mink.
- 3) The ecosystem in Iceland is simpler than in other areas where mink are found; the only other mammalian predator is the arctic fox.
- 4) Direct competition between these species appears to be minimal although the arctic fox will sometimes chase mink and disturb them while foraging.

Answer – 1,3,4,2

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

Answer – 2,1,4,3,5

- 1) The current global production of e-waste is estimated to be 20-25 million tonnes per year, with most e-waste being produced in Europe, the United States and Australasia.
- 2) Developing countries are also expected to triple their e-waste production over the next five years.
- 3) In Europe e-waste is increasing at three to five percent a year, almost three times faster than the total waste stream.
- 4) The global market for electrical and electronic equipment continues to expand, while the lifespan of many products becomes shorter.

Answer – 4,1,3,2

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

Answer – 1,2,4,3,5

- 1) In their work from Tanzania to the Gambia, from Myanmar to Indonesia and beyond, they tap into a wide range of expertise from across the University, including clinicians, microbiologists and molecular microbiologists, public health experts, economists and mathematicians.
- 2) They have also forged relationships and collaborations with research and aid agencies around the world.
- 3) For the past seven years Professor Philip Hill has been part of a collaborative tuberculosis research project in Indonesia, with the University of Padjadjaran in Bandung, West Java, undertaking European-Commission-funded research into the causative links between infectious and non-communicable diseases, which in this case are tuberculosis (TB) and diabetes mellitus.
- 4) University of Otago Centre of International Health co-directors Professor Philip Hill and Professor John Crump share a view that global health is a multidisciplinary activity.

Answer – 4,1,2,3

- 1) To overcome the pull of gravity and reach another body in space you need to achieve a certain speed.
- 2) This requires large rockets, tonnes of fuel, and complex orbital maneuvering.
- 3) Due to the moon's weaker gravitational field, the same journey from the lunar surface would "only" require a speed of 6,500mph (2.9km/s).
- 4) This is roughly one third of that necessary to reach the International Space Station from Earth.
- 5) A journey to Mars from Earth's surface requires a minimum total speed of nearly 30,000mph.

Answer – 1,5,2,3,4

- 1) But with opportunity comes responsibility!
- 2) That means it's up to you to carve out your place in the world and know when to change course.
- 3) Companies today aren't managing their knowledge of workers' careers.
- 4) We live in an age of unprecedented opportunity: with ambition, drive, and talent, you can rise to the top of your chosen profession regardless of where you started out.
- 5) Instead, you must be your own chief executive officer.

Answer – 4,1,3,5,2

- 1) The Newnes railroad was closed in 1932 after 25 years of shipping oil shale.
- 2) The rails were pulled out of the 600-meter tunnel, which had been bored through the sandstone in the Wollemi National Park, and the tunnel was left to its own devices.
- 3) Found in massive numbers in caves, the fungus gnat larvae cling to the rocky walls of the abandoned tunnel and hunt with long, glowing strings of sticky mucus.
- 4) For Newnes, that meant becoming home to thousands and thousands of glow worms.
- 5) The glow worm is a catch-all name for the bioluminescent larvae of various species, in this case, the *Arachnocampa richardsae*, a type of fungus gnat.

Answer – 1,2,4,5,3

- 1) However, when archaeologists want to know the absolute date of a site, they can often go beyond simple stratigraphy.

- 2) Historical records, coins, and other date-bearing objects can help. if they exist. But even prehistoric sites contain records written in nature's hand.
- 3) For example, tree ring, Dendrochronology (literally, tree time) dates wooden artefacts by matching their ring patterns to known records, which, in some areas of the world, span several thousand years.
- 4) The series of strata in an archaeological dig enables an excavator to date recovered objects relatively, if not absolutely.

Answer – 2,4,1,3

- 1) Without the normal blood flow, it will cause muscle contraction.
- 2) The clot in blood vessels will block blood flow.
- 3) Heart attack is caused by the sudden blockage of a coronary artery by a blood clot.
- 4) When the clot is formed, it will stay in the blood vessels.

Answer – 3,4,2,1

- 1) The first steel rails were made in 1857 by Robert Forester Mushet, who laid them at Derby station in England. Steel is a much stronger material, which steadily replaced iron for use on railway rail and allowed much longer lengths of rails to be rolled.
- 2) An early proponent of this design was Benjamin Outram. His partner William Jessop preferred the use of "edge rails" in 1789 where the wheels were flanged and, over time, it was realised that this combination worked better.
- 3) These were superseded by cast iron rails that were flanged (i.e. 'L' shaped) and with the wagon wheels flat.
- 4) However, the long-term expense involved in frequent maintenance outweighed any savings.
- 5) These rails were too fragile to carry heavy loads, but because the initial construction cost was less, this method was sometimes used to quickly build an inexpensive rail line.
- 6) Early rails were used on horse drawn wagon ways originally with wooden rails, but from the 1760s using strap-iron rails, which consisted of thin strips of cast iron fixed onto wooden rails.

Answer – 6,5,4,3,2,1

- 1) As in previous studies, the volunteers could not recognize melodies with fundamental tones above 5 kHz.
- 2) Previous studies have shown that humans are unable to recognize melodies whose notes have a

fundamental tone above 5 kilohertz.

3) To test this theory, Andrew Oxenham and his colleagues at the University of Minnesota in Minneapolis asked a group of six students whether two four-note melodies were identical or not.

4) It was thought that, at frequencies this high, the rapidly cycling sound wave was too fast for the auditory nerve to cope with.

Answer – 2,4,3,1

1) Copernicus probably hit upon his main idea sometime between 1508 and 1514.

2) For years, however, he delayed publication of his controversial work, which contradicted all the authorities of the time.

3) According to legend, Copernicus received a copy as he was dying, on May 24, 1543.

4) The historic book that contains the final version of his theory, *De revolutionibus orbium coelestium libri vi* ("Six Books Concerning the Revolutions of the Heavenly Orbs"), did not appear in print until 1543, the year of his death.

Answer – 1,2,4,3

1) For example, one of the companies we work with in China, called Ecostar, refurbishes copy machines from the United States and re-sells or leases them for 20 percent less than a branded photocopier.

52) New Ventures is a program that helps entrepreneurs in some of the world's most dynamic, emerging economies Brazil, China, Colombia, India, Indonesia and Mexico.

3) We have facilitated more than \$203 million in investment, and worked with 250 innovative businesses whose goods and services produce clear, measurable environmental benefits, such as clean energy, efficient water use, and sustainable agriculture.

4) Often they also address the challenges experienced by the world's poor.

Answer – 2,3,4,1

1) Such defenses from the country's most elite universities "do not hold water", Prof Ebdon said, as he urged the institutions to do more to widen their intakes.

2) Professor Les Ebdon, director of Fair Access to Higher Education, has said universities can no longer make excuses about the number of poorer students they take on.

3) England's most selective universities must do more to attract teenagers from disadvantaged backgrounds if they want to charge higher tuition fees, the country's fair access watchdog has warned.

4) In a statement issued yesterday, Prof Ebdon dismissed the argument from the country's most selective universities, which claim that young people from poorer backgrounds generally secure worse grades.

Answer – 3,2,4,1

1) 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'.

2) Development in the past was driven by growth and innovation. It led to new technologies and huge improvements in living standards.

3) Implicit in this definition is the idea that the old pattern of development could not be sustained. Is this true?

4) Whatever happened to the idea of progress and a better future? I still believe both.

5) 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.

Answer – 4,1,3,2,5

1) Traditionally, the black keys were made from ebony and the white keys were covered with strips of ivory, but since ivory-yielding species are now endangered and protected by treaty, plastics are now almost exclusively used.

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

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

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

Answer – 3,4,1,2

1) For as long as I can remember, there has been a map in the ticket hall of Piccadilly Circus tube station supposedly showing night and day across the time zones of the world.

2) But this map has always fascinated me, and still does, even though it now seems very primitive.

3) This is somewhat surprising given the London Underground's historic difficulty in grasping the concept of punctuality.

4) This is because it chops the world up equally by longitude, without regard the reality of either political divisions or the changing seasons.

Answer – 1,3,2,4

- 1) The physical location of a restaurant in the competitive landscape of the city has long been known as a major factor in its likely success or failure.
- 2) All they can do is work to improve customer access to their premises.
- 3) Once restaurants are established in such environments they can do little about their location.
- 4) Restaurateurs often do this by engaging in battles with local authorities about car parking.

Answer – 1,3,2,4







SUMMARIZE SPOKEN TEXT



The concept of self-domestication in animals, particularly dogs, is quite intriguing. The One prominent theory suggests that dogs began their domestication journey by scavenging around human settlements, especially garbage dumps. This theory posits that less aggressive wolves were more successful at scavenging near humans, leading to a natural selection process favoring those with friendlier and more cooperative traits. However, some researchers argue against this "dump theory". They suggest that the domestication of dogs was more complex and involved active cooperation and emotional bonds between humans and wolves long before the existence of human waste dumps. This perspective highlights the psychological and neurobiological similarities between humans and dogs that facilitated their close relationship. Overall, the self-domestication hypothesis emphasizes that the evolution of dogs from wolves was likely driven by a combination of factors, including reduced aggression and increased sociability.

I want today to talk about the industrial revolution from a variety of, of aspects. I 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 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, of so winners and losers are not going as fast. In your reading, I 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.

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 photographed, 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.

Fish are important because they help maintain the health of marine ecosystems and provide support to other marine life. They are an important part of the food web because they are predators to smaller organisms and prey to marine mammals and seabirds globally. They also support humans. About 80 million tons of fish are harvested annually. This volume is enough to feed all Filipinos with their annual fish consumption for 20 years. And they're currently about 60 million people working in the fishing industry globally. But on a global scale, 33 percent of fisheries are overfished, meaning too many fish are being harvested. This may cause fish populations to become depleted and not able to recover. 67 percent are fully exploited, meaning additional fishing effort could lead to the fisheries collapse. Only 10 percent have room to grow, with just 10 percent of the fisheries having room to grow. We might experience a global fishing crisis.

Here you're making an apology, there are three questions that you want to be able to answer. The first is, do we tell the truth? People want the company to tell the truth for two reasons. One is it gives them confidence that they know what went wrong. And so that means that they will presumably know what

to fix. The other is that they want the company to be a truth-telling company so it can uncover the truth. The second is, on whose behalf are we acting? Is it clear that people understand that we understand that. And the third is, how do our actions benefit those people who trust us? So, what is it that we're going to do in the future that's actually going to make people believe that we're going to fix the problem we created? And this is where all those facts matter, because if you've laid that out pretty clearly, then there is in fact a path to describe what it is that you're going to do. And so that action planning part is part of the apology, too, because that gives you confidence that the company actually knows how to get from the current state to the future state, where this kind of thing is not going to happen.

The glass ceiling is an idea familiar to many. It refers to the invisible barrier that seems to exist in many fields and which prevents women from achieving senior positions. Less well-known, but arguably a more pernicious problem, is the 'glass cliff'. Originally recognised by academics Michelle Ryan and Alex Haslam back in 2005, this is the phenomenon of women making it to the boardroom but finding themselves disproportionately represented in untenable leadership positions. Ryan and Haslam presented evidence that women were indeed starting to secure seats at boardroom tables. But the problem was that their positions were inherently unstable. These women would then find themselves in an unsustainable leadership position from which they would be ousted with evidence of apparent failure. The title of their paper sums it up: women are over-represented in precarious leadership positions. Subsequent research in an array of environments has demonstrated that this is not an isolated issue, nor is it unique to certain industries or geographical locations. It reveals that women in top leadership positions seem to be routinely handed inherently unsolvable problems.

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 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.

Australia is a vibrant, multicultural country. It is home to the world's oldest continuous cultures, as well

as Australians who identify with more than 270 ancestries. It mentions that Australia has the oldest culture of residents and a quarter of the people in Australia were born overseas. Migrants make an enormous contribution to Australia's economy and provide an estimated fiscal benefit of over 10 billion dollars in their first ten years of settlement. Despite legal protection, too many people in Australia continue to experience prejudice and unfair treatment because of how they look or where they come from. Most new migrants say they feel a strong sense of belonging to Australia and that this feeling deepens over time. This rich, cultural diversity is one of the Australian greatest strengths, although it has a negative effect, which we do not emphasize in detail.

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.

Andrew Carnegie was born in Scotland in 1835. His family moved to America when he was 13 and settled in Pittsburgh. He found jobs working in a fabric mill and telegraph office. Carnegie always did well at whatever he set his mind to. He was known to make improvements to any job he held. While working for the telegraph office, he began studying the railroad system, and he soon became the superintendent. He took the money he had saved and invested in an oil company. His investment return was good and then he went to England to learn how to make steel. He wanted to make steel that was cheaper and more durable than American steel. He came back with his knowledge and built a huge steel factory. Carnegie's Factory was very successful and he sold it for 480 million dollars. Carnegie was a very wealthy man but he was more interested in philanthropy than spending his money on himself. He spent the rest of his life giving his money away to worthy causes. Reading and learning were very important to him, so he built many libraries. He also established universities and research institutes. Carnegie built hospitals, museums, and theaters. One of the most recognizable buildings he built was Carnegie Hall in New York City. Carnegie Hall hosts many concerts and symphonies each year and is an important part of New York City culture. Andrew Carnegie passed away at the age of 83. In his lifetime he gave away 90% of his fortune. He is known as a man who was selfless and wanted to do good for others.

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.

As long as industrialized nations consume energy and developing countries increase their fossil fuel consumption the concentration of greenhouse gases in the atmosphere will continue to rise. Researchers predict that temperatures will increase about 2 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.

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.

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 programmed 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 the lab, if we have one bacterium, 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 every day. 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 and 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, poetry remains an important part of art and culture. We often talk about the knowledge about the literature in poetry. 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

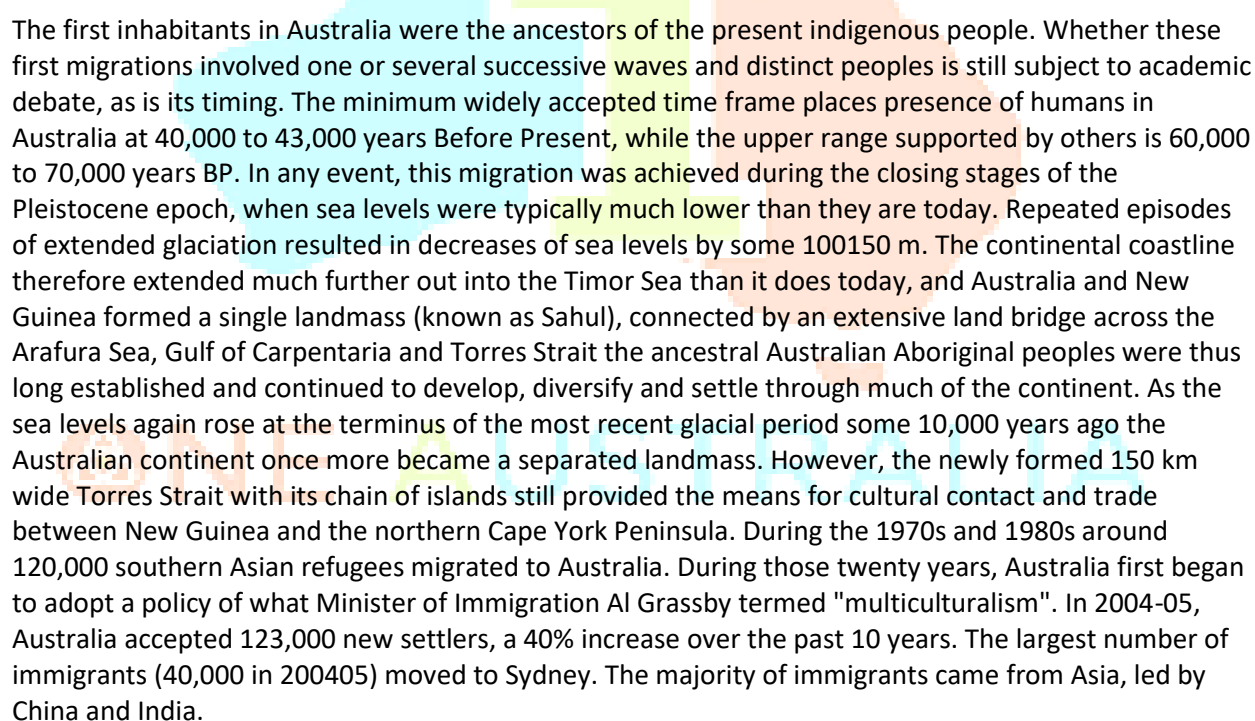
going to take is about what is engineering and how to work with a complicated system. You guys should know the answers, because all of you guys are from the engineering course. Especially, when you design, build, debug and develop something new, during this process, you are working with the complicated 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 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 analysing 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 100150 m. The continental coastline therefore extended much further out into the Timor Sea than it does today, and Australia and New Guinea formed a single landmass (known as Sahul), connected by an extensive land bridge across the Arafura Sea, Gulf of Carpentaria and Torres Strait the ancestral Australian Aboriginal peoples were thus long established and continued to develop, diversify and settle through much of the continent. As the sea levels again rose at the terminus of the most recent glacial period some 10,000 years ago the Australian continent once more became a separated landmass. However, the newly formed 150 km wide Torres Strait with its chain of islands still provided the means for cultural contact and trade between New Guinea and the northern Cape York Peninsula. During the 1970s and 1980s around 120,000 southern Asian refugees migrated to Australia. During those twenty years, Australia first began to adopt a policy of what Minister of Immigration Al Grassby termed "multiculturalism". In 2004-05, Australia accepted 123,000 new settlers, a 40% increase over the past 10 years. The largest number of immigrants (40,000 in 2004/05) moved to Sydney. The majority of immigrants came from Asia, led by China and India.

English, as you have already read, is not a pure language. I don't think there really are any pure languages in the world. But English is definitely not a pure language. English, in fact, has borrowed from over 350 languages in its history. So, it's a variety of many languages. Some people say it's like a dog, a mongrel dog, a dog that has been made up of many different dogs. The English language is like that. By looking at the history of the English language we learn about the history of the English people. The two things are closely connected. So, in fact, today we are not only learning about language but we are

learning about history. The fact that English has borrowed words from over 350 languages has been viewed differently throughout history. So, for example in Shakespeare's time people were very angry about words which were not, they thought, original English words - words which came from other languages, they didn't like them. Discussion

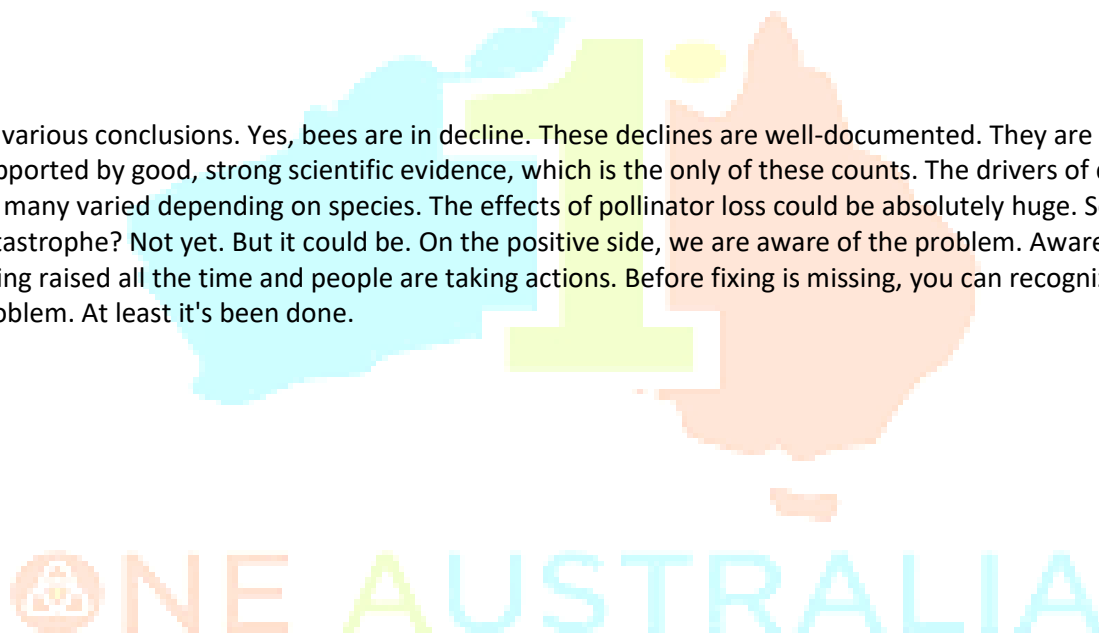
Since the discovery of DNA structure, people have believed that genes have an impact only on people's physical structure. However, the study of mapping of genes in 2001 found that there is a genetic responsibility to human's physical and psychological behaviors, which has changed the way we understand our behaviors. Findings from behavioral genetic research have broadly impacted modern understanding of the role of genetic and environmental influences on behavior. The research on genes has provided integrating information, and the findings can benefit biologists, psychologists and neuroscientists. Qualitative research has fostered arguments that behavioral genetics is an ungovernable field without scientific norms or consensus, which fosters controversy.

So, the topic for today is abstraction. And this is a very important layer of computer because you can't do anything with a computer unless you have a symbolic system in place. Right. So, we're talking about the origin of symbolic systems. Language is a classic symbolic system. Apparently one theory for why language evolved is that people communicated with sign language and with movement quite well for a long time. And it turned out that they wanted to communicate even while they were doing things. So, while they were trying to strangle the dinosaur, not the dinosaurs, the rhinoceros, they wanted to say "Come help me" and they use sign language to do it. They had to let go of the rhinoceros and the rhinoceros ran away. So, you can see that it's a good idea to be able to do something with your hands and be able to communicate at the same time. Hence, they're come words and languages.

Well, the 90s came around and finally it clicked that normal people could get online, which hadn't really clicked before. And the little trick that finally put it together was Tim Berners Lee HTML, so thank you to the UK for providing the fellow who finally put the missing link in place. And then what happened in the 90s was this extraordinary outpouring of creativity and constructiveness from millions and millions of people. There were millions of people making web pages, creating content online, creating social experiments, creating lessons-all sorts of things. And the first decade of the web took place without much of a profit motive, without any particular charismatic figures driving it, without fear, without a desire for an afterlife or any other religious gambits, without advertising, without any of the traditional motivational schemes. It simply happened because people enjoyed it and it was a good idea.

Well, it's like, why is Australian housing so expensive? Essentially, it's showing of how well the Australian economy has been doing over the last 15 years. We have had 15 years more or less of an uninterrupted economic growth during which average earning has been raised by close to 90 percent. While over the course of that period, the standard variable mortgage rate has roughly halved. That meant that the amount which a typical home buying household can afford to borrow under rules which aren't strictly applied as they used to be had more than doubled. Over the same period, rising immigration in falling average household size has meant that the number of households looking for accommodation has risen by about one and a half million. That's around 200 thousand more than the number of dwellings has increased by. So, you have had a substantial increase in the purchasing power of households. No net increase in the supply of housing enhances all that addition purchasing power has gone into pushing up the price of housing.

So various conclusions. Yes, bees are in decline. These declines are well-documented. They are real and supported by good, strong scientific evidence, which is the only of these counts. The drivers of decline on many varied depending on species. The effects of pollinator loss could be absolutely huge. So, is it a catastrophe? Not yet. But it could be. On the positive side, we are aware of the problem. Awareness is being raised all the time and people are taking actions. Before fixing is missing, you can recognize the problem. At least it's been done.





FILL IN THE BLANKS LISTENING



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 going to 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 lame 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, hmmm. 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 Sceptical 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.

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 travellers 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 centre, 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) neurobiologist, 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.

For four centuries the Viking (Answer: declined), the people of the Shetland Islands off the north coast

of Scotland continued to sell their goods through the North European Hanseatic League. The Hansa merchants bought shiploads of (Answer: salted) fish and in return the islanders got cash, grain, cloth and other goods. This lasted until the Act of Union between Scotland and England in 1707. This Act prohibited the Hansa merchants from (Answer: trading) with Scotland. Consequently, Shetland went into an economic (Answer: depression). The independent farmers of Shetland had to sell their land and were then (Answer: obligated) to pay rent, eventually becoming serfs.

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 your 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 fears 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 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 provide.

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: analyzed) hardened dental plaque from five Neanderthals found in El Sidrón cave, in northern Spain. Yes, 50,000-year-old dental plaque. And they found a lot lurking between the teeth. Like evidence of nuts, grasses and green veggies, (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.

Obviously, this is all relevant to your final (Answer: assignment). So, we're going to talk about it. So, until today, we've gone through face-to-face interviews as the main sort of part of interviewing the window. Today we're going to have a look at going to use an email and why they work, why they don't necessarily work, and what are the (Answer: challenges) and some of the things that we need to be understanding, you know when we are completing such interpreters. So, let's start with the foreign one. Obviously, there are a few (Answer: benefits) to them, and they are listed there up on that slide. It's obviously less stressful for those of you who might be a little bit (Answer: anxious) about interviewing.

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: archaeology), 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 modelling 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.

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 was set up about seven or eight years ago. And the idea was to provide a hub of activities that covered (Answer: fundamental) research work, international collaboration, but also educational development on public (Answer: understanding) of the project as well, and also networking so we network out to well over 1000 people around the globe.

The Earth is warming. Almost all the Arctic (Answer: summer) ice may have melted by the end of the century, claims the Intergovernmental Panel on Climate Change the IPCC. The upside. (Answer: Access) to an estimated quarter of the world's oil and gas resources and the (Answer: opening) of the fabled Northwest Passage. The downside. The Arctic wilderness is lost as (Answer: neighboring) countries, Denmark and Greenland, Russia, Canada, Norway, and the United States all race to (Answer: share) in the bounty.

These two paintings, both called “Sunflowers,” are generally accepted as the finest of several (Answer: depictions) of the thick-stemmed, nodding blooms that Van Gogh made in 1888 and 1889 during his time in Arles. The first is now in the collection of the National Gallery in London, and the second is in the Van Gogh Museum in Amsterdam. Van Gogh referred to this work as a (Answer: repetition) of the London painting. But art historians and curators have long been (Answer: curious) to know how different this “repetition” is from the first. Should it be considered a copy, an independent artwork or something in between? An (Answer: extensive) research project conducted over the past three years by conservation experts at both the National Gallery and the Van Gogh Museum has concluded that the second painting was “not intended as an exact copy of the (Answer: original),” said Ella Hendriks, a professor of conservation and restoration at the University of Amsterdam, who was the lead researcher on the project.

Why do we need more entrepreneurs right now? The entrepreneurs who create and run our businesses, who play by the rules, are in fact critical to our (Answer: success) as a nation. We need them (Answer: especially) today. Business, not government, will end this (Answer: recession). Government must help by creating fair rules, (Answer: sound) monetary policy, and by protecting our fellow citizens in periods when they are jobless. We have to make way for the new entrepreneurial firms that will push us to (Answer: frontiers) of innovation.

What is nanotechnology? Well, a report that was put together by a (Answer: combination) of the Royal Society and the Royal Academy of Engineering that came out last summer, (Answer: identifies) two topics. Nano-science is the study of (Answer: phenomena) and the manipulation of materials at atomic, molecular and (Answer: macromolecular) scales, where properties differ significantly from those as a larger scale. Nanotechnologies are the design, characterization, production and application of (Answer: structures), devices and systems by controlling shape and size at the nanometer scale. So, I'll talk a little bit more in a moment about what a nanometer is, but (Answer: loosely) speaking people think of nanotechnologies as being a sort of a hundred nanometers or less.

Financial markets swung wildly yesterday in frenzied trading market by further selling of (Answer: equities) and (Answer: fears) about an unraveling of the global carry trade. At the same time trading in the European credit markets in London was exceptionally (Answer: heavy) for a third consecutive day. London trading was marked by particularly wild (Answer: swings) in the prices of credit derivatives, used to ensure investors against (Answer: corporate) defaults.

For many years the favorite horror story about (Answer: abrupt) climate change was that a shift in ocean currents could (Answer: radically) cool Europe's climate. These currents, called the overturning (Answer: circulation) bring warm water and warm temperatures north from the equator to Europe. Susan Loosier, an (Answer: oceanographer) at Duke University, says scientists have long worried that this ocean circulation could be disrupted.

Along the way, we have built (Answer: unashamedly) beautiful buildings, two of which have won and been runner-up in the prestigious United Nations World (Answer: Habitat) Award: the first time an Australian building has received that international honor. We rely on older (Answer: concepts) of Australian architecture that are heavily influenced by the bush. All residents have private verandas which allow them to (Answer: socialize) outdoors and also creates some "defensible space" between their bedrooms and public areas. We use a lot of (Answer: natural) or soft materials and build beautiful landscaped gardens.

In animals, a movement is coordinated by a cluster of neurons in the spinal cord called the central contract pattern generator (CPG). This produces signals that drive muscles to (Answer: contract) rhythmically in a way that produces running or walking, depending on the (Answer: pattern) of pulse. A simple signal from the brain instructs the CPG to switch between (Answer: modes) such as going from a standstill to walking.

Now that story's been scotched, as only part of contingency planning. But it was a symptom of the dramatic turn of events in South Australia, and it flushed out other remarks from water (Answer: academics) and people like Tim Flannery, indicating that things were really much worse than had been (Answer: foreshadowed), even earlier this year. So is Adelaide, let alone some whole (Answer: regions)

of South Australia, in serious bother? Considering that the vast amount of its drinking water comes from the (Answer: beleaguered) Murray, something many of us outside the State may not have quite realized. Is their (Answer: predicament) something we have to face up to as a nation?





WRITE FROM DICTATION

 ONE AUSTRALIA

University graduates lose their time finding jobs.

Music has the ability to shape our emotions.

Mental health professionals are talking about the topic of vulnerability.

Your tutor will provide the guidance on how to structure the essays.

Medical books and journals have been moved to the second floor.

Gold is a metal that occurs naturally in a pure state.

Creativity is more important for undergraduates.

It is argued that students can learn more by collaboration rather than as individuals.

Open days for undergraduates occur all year round for campus visits.

We will hold a celebration for the graduated students.

Employment figures will decrease in the next few years.

Criminal charges will be brought against all of the men.

Writing history needs a careful selection process of diverse sources.

Social media is responsible for helping the government to solve social problems.

Urbanization increases the costs for other communities.

Students are encouraged to read new books recommended by Professor Jones.

We can see the stars that were formed thirteen billion years ago.

The horizontal line on the graph indicates that there was no change in the period.

Agricultural development is vital for poor rural areas.

For the purpose of research, data should be collected and analyzed.

Organization plays an important role in academic literature.

The transformation of media has changed the way information is both used and studied.

The biology department is respected in research activities.

The news will not be received until the following week.

Formal conclusions could be established through rigorous experiments.

Social psychology is concerned with the understanding of human behavior.

Our faculty includes five libraries across the university.

Muscle cells bring parts of the body closer together.

The student union hosts a variety of social events.

Most of the lectures begin promptly, so do not be late.

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

Optional tutorials are offered in the final week of a term.

Your term papers should include current social issues.

The residence hall is closed prior to the academic building closing time at the end of the semester.

We encourage students to complete their applications before the deadline.

This paper provides a synthesis of key issues in sociology.

The public schools shall open on the first day of September.

There are many major differences between primary and secondary schools.

Designing a curriculum for a public university presents a moral difficulty.

It is easy now for workers to analyze and share data.

You're probably ready to learn how to secure your email system.

His contribution has been key to the development of modern mathematics.

A date for the meeting has yet to be determined.

The industry is suffering from the effects of recent price rises.

You should have the sense to take advice when it's offered.

Don't take any notice of what you read in the papers.

The library for college students is closed until further notice.

The tests have been designed to detect the disease early.

All of our centers would provide information on technology and training.

He taught literature for several years before becoming a writer.

As a scholar, her work was divided between tutoring and research.

The company only dismisses its employees in cases of misconduct.

The professor will be teaching history and sociology next term.

The entire content of this special email message is confidential.

He recently completed a national science foundation research for undergraduates.

We have been working together with other major comprehensive universities.

A computer virus has destroyed all my files.

We no longer respond to any postal reference requests.

The county hospital could find no physical cause for his illness.

Presently, the government has been suffering from many economic difficulties.

They issued a statement correcting the one they had made earlier.

A large organization can be slow to adapt to change.

He was determined to make a success of the business.

The study found a strong correlation between its two primary variables.

This university's archaeology school is known worldwide for its excellence.

Solar energy's untapped potential for use holds incredibly vast possibilities.

Specialized vocabulary with unique meanings within fields is termed jargon.

The methods of communication among people are evolving over time steadily.

The project's goal was to examine standard cases rather than exceptions.

Comprehensive theory and practical training are necessities in medical specializations.

Globally, governments are structured and operate in various distinct forms.

Medical studies branch out into numerous specialties and research areas.

Our world features a diversity of governmental systems and policies.

Some historical events' occurrence is questioned due to scant evidence.

Many individuals continue to encounter challenges while working in labs.

Near the campus bookstore, students can conveniently find a pharmacy.

A reception to welcome new students is hosted each academic term.

The necessity for expanded research in this discipline is evident.

The best presenting student at the seminar was awarded a prize.

No link was established between the medication used and healing rates.

A summer conference on academic web research is scheduled here next.

Both individuals, raised in the countryside, prefer it to city living.

They've been working since last year to introduce paid services.

The integrated course combines various elements into a cohesive program.

These factors are also linked to numerous deaths of sea creatures.

He is well-qualified to guide groups on mountain expeditions safely.

Unfortunately, today's lecture on economic policy is no longer happening.

The graph indicates only a slight increase has been observed.

This tech company specializes in developing and launching new software.

Students needing more time should request an extension from faculty.

Consider attending this marketing seminar if you're exploring the field.

Including a thorough bibliography is necessary to secure full marks.

A complete bibliography is essential for achieving the highest score.

The materials from today's lecture will appear on the upcoming exam.

Traffic emissions are a primary source of air pollution in cities.

Collaborate with your peers to foster teamwork and a cooperative spirit.

Undergraduate students can participate in specific phases of the program.

Knowing the library's use can significantly reduce your research time.

An increase in university tuition fees is anticipated for next year.

Installing water fountains can reduce plastic bottle usage on campus.

Working as part of a team is a skill we possess.

Together, we aim to reach higher standards in education collectively.

Complete equality within our society remains unrealized to this day.

We study science to comprehend and value our surrounding world.

Research and marketing are crucial when introducing a new product.

Faced with high risks, companies might increase their product prices.

Although reconciliation is sought, deep issues must be resolved first.

The delay of the project's progress has raised many questions.

You must hand in your assignment by Friday without fail.

Assignments must be submitted by Friday next week at the latest.

Please ensure your graph is drawn on a separate sheet.

Your estate agent receives a commission for each house sold.

Your lowest quiz score has been excluded from the final grade.

Ensure your summary is both clear and succinct as possible.

Your job is to stimulate market demand for this new product.

Taking a second major can broaden your future career choices.

Insufficient sleep can raise the risk of various health issues.

Sometimes taking action is better than doing nothing at all.

Throughout his life, he composed a vast array of music.

It took years more to fully develop and prove the theory.

Most governments face the significant challenge of managing population growth.

Usually, older students adapt very well to the university environment.

An internal organ's role includes maintaining the body's core temperature.

Our courses are designed to enhance critical and independent thinking skills.

All laboratory equipment is available to students without any charge.

Scientific progress relies heavily on the process of peer review.

Reports are needed to substantiate the claims made in your argument.

Safety protocols dictate always wearing protective gear in the lab.

The science library is situated at the library's ground level.

Some thinkers may be recognized as history's most influential scientists.

Studying abroad enhances students' prospects in the global job market.

Body fat plays a crucial role in insulating and warming organs.

Steam power was the driving force of Europe's Industrial Revolution.

Visits to the new art gallery are limited to Fridays only.

Next term, there will be changes to the office's operating hours.

This play's promotional poster is displayed in the main auditorium.

Research shows Hong Kong residents are exceptionally active compared to others.

The guest speaker was previously a faculty member in our department.

Planting more trees in urban areas has many beneficial reasons.

Few connections exist between the studies of philosophy and psychology.

Recent times have seen numerous changes in the mathematics faculty.

A scheduled meeting for newcomers is set for this Friday.

New term schedules will be released in the upcoming week.

Today's history class has been relocated to another lecture hall.

The jobless rate recently dropped to the lowest point in years.

The winter sun is still sufficient for warmth despite its position.

Libraries play a crucial role in the academic journey of students.

The group's meeting is scheduled tomorrow in the library's room.

It's essential not to mistake cause for effect regarding changes.

A fire drill necessitates evacuation from buildings for everyone's safety.

As populations grow, the need for more energy also increases.

Active listening is vital for success in this particular course.

Native language speakers don't need to take language proficiency tests.

The history of our university is both extensive and fascinating.

We managed to reach out to several subjects for research.

The same problem was researched leading to a similar explanation.

The main ideas of these events remain largely not understood.

The coffee shop offers a menu including salads, soups, and meats.

True or false questions seem tougher to many than short answers.

Student ID cards are expected to be ready by today.

Scientists are now examining a broad range of atmospheric phenomena.

The reality of climate change is now recognized by experts.

We will examine how to structure essays in this class.

She once held the position of editor for the student newspaper.

The summer class was not held due to low student numbers.

The garden at the university's rear has a storied history.

The plight of wildlife has frequently been overlooked in development.

This camera technology can locate and focus on human eyes.

Begin your educational journey by applying for a university scholarship.

Body fat functions as an insulator for our internal organs.

The history class has been relocated to the main theater.

The London bus's departure has been delayed by ten minutes.

The reception can assist with queries about lending and printing.

Ensure all files are saved prior to shutting down your computer.

For staff training purposes, the library will be closed tomorrow.

Sound cannot travel in a vacuum where no air exists.

Payments can be made with either cash or credit card.

Salt is sourced either from evaporated seawater or mined directly.

The car park on the north side may shut this Sunday.