



There have been three major influenza pandemics over the last century. The first and most severe was the Spanish flu of 1918 that infected half of the world's population and from which around 50 million people died. The next was the 1957 Asian flu which also infected nearly half of the world's population, but the number of fatalities was lower: about three quarters of a million in total. The third was the Hong Kong flu of 1968-69 which was the cause of between 1 and 3 million deaths.

To put these figures into perspective, the more recent but more widely reported outbreaks have been comparatively small. It must also be remembered that between a quarter million and half a million people worldwide die of seasonal influenza every year. Improved worldwide communication in the last few decades means that new strains of flu become worldwide news very rapidly, but it is also thanks to this advancement that measures to prevent spread of flu are now very effective.

Q1 The world's population in 1918 was less than 80 million.

True	False	Cannot say
Irue	False	Cannot say

The passage states that half of the world's population was infected in 1918 during the Spanish flu outbreak, from which around 50 million people died. Even supposing that everyone who was infected died as a result, that still means the entire world's population would have been around 100 million.

**Q2** The Hong Kong flu pandemic of 1968-1969 had the second highest death toll from flu in the last century.

True False Cannot say

The passage states that the flu outbreak with the highest death toll was the Spanish flu. Of the other two major outbreaks, the Asian flu had <sup>3</sup>/<sub>4</sub> million deaths whereas the Hong Kong flu had between 1 and 3 million deaths.

**Q3** Major flu pandemics occur at least three times a century.

True False Cannot say

While it is true that there were three major flu pandemics in the twentieth century, the passage provides no evidence of the frequency of pandemics in previous centuries.



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**Q4** Modern communication helps to prevent the spread of flu.

True False Cannot say

The passage tells us that thanks to improved communication "in the last few decades" the spread of flu is effectively reduced. The question is deliberately challenging because the passage says "thanks to this advancement"; it has to be deduced that "this advancement" refers to the improved communication.



With increasing costs of fuel and environmental concerns, hybrid cars are the way of the future. Hybrids provide both improved fuel economy and reduced emissions. Hybrid cars use a petrol engine and an electrical energy storage device, usually a battery of nickel-metal hydride cells. When a large amount of energy is required, the two work together; when a lesser amount of energy is required (at lower speeds around town), the stored electrical energy powers an electric motor. You won't notice much difference from a conventional car when you drive a hybrid, except that there will be very little noise at low speeds. What you will notice, however, is the improved fuel economy and dashboard displays that inform you about the energy flow and fuel consumption. Most hybrid cars have shown reduced greenhouse gas emissions of around 25% compared with a petrol car of a similar type, and use 15% to 30% less fuel. The purchase price of a hybrid is around 10% more than a similar-sized petrol-driven car, but the saving in the use of fuel should soon pay for the difference.

**Q5** Hybrid cars derive all their propulsion from an electric motor.

True	False	Cannot say
Truc	1 4150	ounnot buy

The passage tell us that hybrid cars are powered by both a petrol engine and an electrical motor. Although they may at times be solely electrically powered (such as at lower speeds), there are other times when both devices must be used together.

**Q6** Hybrid cars use less fuel compared to a conventional petrol-driven car.

True False Cannot say

You might be forgiven for being undecided about this one. The passage tells us that "Most hybrid cars" use 15% to 30% less fuel compares with a petrol car of a similar type. So you could consider answering Cannot Say. However the key phrase here is "What you will notice, however, is the improved fuel economy". And this refers to a comparison between a conventional car and a hybrid. So the passage is telling us as fact there is improved fuel economy.

**Q7** The nickel-metal hydride cells add around 10% onto the cost of a hybrid car compared with a similar conventionally-powered car.

True False Cannot say

The passage states that the purchase price of a hybrid car is around 10% more than a conventional car. This is likely to be due to the increased cost of manufacturing the car. It may also be due to other factors, such as the perceived desirability of owning an environmentally friendly car. However, the passage does not specify the reason(s) for the increased price.



Cyberbullying is a relatively new phenomenon. It occurs mainly among young people, especially teenagers, and has replaced traditional forms of physical and verbal bullying, presumably because it can provide some anonymity and is seen to be 'at a distance'. The main types of cyberbullying are by direct contact through e-mails, instant messages or the use of mobile phones for texting or sending photographs or videos. However, increasingly we are seeing the use of social networking sites where bullies make fun of victims or even get hold of their messaging accounts and chat to people pretending to be the victim. Cyberbullying can be more harmful than traditional forms of bullying since it happens at home (where victims should feel safe) and can involve many bullies at once. In the world of modern communication, cyberbullying is difficult for the victims to escape from.

**Q8** You are more likely to be a victim of cyberbullying if you are an adult.

True False Cannot say

The passage states that cyberbullying "occurs mainly among young people" which means you are less likely to be a victim if you are an adult.

Q9 Social networking sites can be used by cyberbullies as a way of pretending to be the victim.

True False Cannot say

The passage states that cyberbullies can get hold of the messaging accounts of their victim and chat to people pretending to be the victim.

**Q10** The solution to reduce cyberbullying is for parents to restrict their children's use of the internet and their mobile phones.

True False Cannot say

The passage does not offer any solutions to cyberbullying.



Seventy years ago a girl discovered a strange skeleton in a tunnel in Mexico. All that remains of the skeleton today is the skull. In 1999 the skull was given to Lloyd Pye, an American author and researcher into an alternative theory of the origin of human life. Since that time Pye has been trying to prove that the skull, named 'Starchild', is that of an alien. The skull is much less heavy than a human skull, has an unusual shape and unusually placed eye sockets. It also has strange fibres running through the bone. Various tests have been done on the skull, showing that its bone has a different chemical composition from human bone. A DNA test has shown that the mother of 'Starchild' was human, but the father's genetic heritage could not be recovered. Pye has concluded that 'Starchild' is a hybrid of a human mother and an alien father. Some scientists are more sceptical and believe that 'Starchild' was a malformed human.

**Q11** The skull of 'Starchild' is much heavier than a normal human skull.

True	False	Cannot say

The passage states that the skull of 'Starchild' is much less heavy than a human skull.

**Q12** DNA tests have not disproved the theory that 'Starchild' was a hybrid of a human mother and an alien father.

True False Cannot say

According to the passage, a DNA test has shown that the mother of 'Starchild' was human, but that the father's genetic heritage could not be recovered. Therefore the test does not prove whether the father was human or alien.

**Q13** Some scientists believe that Pye is a fraud and that he has used the unusual skull to try to further his theory of an alternative origin of human life.

True	False	Cannot say
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The passage does state that Lloyd Pye has tried to prove that the skull is that of an alien, and that he is a researcher into an alternative theory of the origin of human life. However, the passage does not say anything about the scientists' (or anyone else's) assessment of Lloyd Pye's motives. It only states that they are 'sceptical' and believe that the skull belongs to a malformed human.



Invented just before the turn of the twentieth century, Bluetooth is a useful wireless technology named after an ancient Viking king, King Blatand (which is Danish for King Bluetooth). Blatand united the warring tribes of Denmark and Norway in the 10<sup>th</sup> Century so Bluetooth was given it name because it unites together many devices such as your computer, your personal digital assistant, your mobile phone and your digital camera. The advantage of Bluetooth is that it does away with the need for cables and communicates instead by radio. All that's needed is for each device to have a Bluetooth chip. To communicate between the Bluetooth-enabled devices, all you need to do is put them within ten metres of each other. The real advantage of Bluetooth is that it allows you to easily synchronise data stored on your various devices. However, there are some issues with the security of data transmission using Bluetooth, despite each device having an individual ID number and PIN. To reduce this risk and to prevent eavesdropping on other people's data, the radio frequency is continually changed.

**Q14** The Viking King, King Blatand, invented Bluetooth technology.

True	False	Cannot say
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We are told that Bluetooth was invented "just before the turn of the twentieth century" and that King Blatand was alive in the 10<sup>th</sup> century. Therefore it cannot have been Blatand who interved Bluetooth.

**Note:** some deduction is required here; the passage does not explicitly say whether Blatand invented the technology but given the information in the passage, this possibility must be ruled out.

**Q15** Bluetooth transmission between enabled devices cannot be intercepted.

True False Cannot say

The passage says that there are "some issues with the security of data transmission using Bluetooth". If there is an issue with security it is not true to say transmissions cannot be intercepted.

**Q16** Bluetooth sticks to certain radio frequency bands for security reasons.

True False Cannot say

The passage states that Bluetooth communicates by radio and that the radio frequency is continually changed for security reasons. However it does not mention any particular bandwidth that is or is not stuck to. Sticking to a frequency is not the same as having the frequency "continually changed".



**Q17** Bluetooth is not suitable for orbiting satellites to communicate with Earth.

True False Cannot say

The passage states that Bluetooth-enabled devices can communicate with each other as long as they are "within ten metres of each other". Orbiting satellites will be more than ten metres from the surface of the Earth.



Employees in the United Kingdom are now enjoying more holidays than ever before. From 1<sup>st</sup> April 2009 the minimum statutory entitlement to paid annual leave for workers has increased from 4.8 weeks to 6 weeks (based on a five day working week). This is the minimum, but some employers may offer more - you should consult your contract of employment. However, the employer can choose when you take your holidays. The 6 week entitlement is for an employee in full employment for a year with a five day working week, and includes public holidays. The entitlement for part-time workers is calculated as 6 weeks times their fraction of a full working week. Similarly, the entitlement for a full-time worker who does not complete a year with an employer is worked out on a pro-rata basis.

**Q18** From 1st April 2009 workers in the UK who work a five day week are entitled to 30 days' paid holiday per year of work.

True False Cannot say

The 6 week entitlement is for an employee with a five day working week and is for a complete year of work. Six weeks at five days per week makes a total of  $6 \times 5$  days = 30 days. So, workers who work a five day week are entitled to 30 days' paid holiday per year of work.

**Q19** Employees granted long-term sick leave lose their full entitlement of paid annual leave.

True

False Cannot say

The passage makes no reference to the paid leave entitlement for employees granted longterm sick leave. We cannot say either way given only the information in the passage.

**Q20** Employees have a right to take at least some of their paid holiday during the summer.

True False

lse Cannot say

Although it may be true in practice that most employers are flexible and fair, according to the passage, the employer has the power to choose when you take your holidays and could therefore restrict you taking them during the summer.

**Q21** The annual leave entitlement of 6 weeks includes public holidays, but some employers may give additional leave entitlement.

True False Cannot say

The passage states that the 6 week minimum entitlement "includes public holidays", and also that "some employers may offer more" than the minimum.



In the wake of security concerns and the ever-increasing numbers of flying passengers - more than 90 million passengers pass through UK immigration each year - new ways have been sought to recognise passengers who may have a criminal record or are considered 'undesirable'. The use of fingerprints is messy and time-consuming, and is not always accurate. A method that has been on trial since 2002 is the 'Iris Recognition System.' This method takes a digital image of the iris patterns on the back of the eye and compares it with those that are already stored in a databank. This system has proved to be 100% accurate since no two irises have exactly the same pattern, not even those of identical twins. Even the right and left eyes of the same person do not exhibit the same pattern. It is believed that the new method will help to speed up the immigration system as well as make it more secure.

Q22 The 'Iris Recognition System' can detect unusual passenger behaviour.

TrueFalseCannot sayThe passage omits to say anything about the IRS detecting unusual behaviour. One might<br/>assume that it cannot detect this but merely compare irises to the databank, however since<br/>the passage does not tell us either way if this is true or false, the answer is cannot say.

**Q23** The 'Iris Recognition System' is less accurate than the use of fingerprints.

False

According to the passage, the use of fingerprints is not always accurate, whereas trials have shown the Iris Recognition System to be 100% accurate.

Cannot say

**Q24** One problem with the 'Iris Recognition System' is that it cannot distinguish between identical twins.

True False Cannot say

The passage states that "no two irises have the same pattern, not even those of identical twins".



True

In Europe 12 million animals suffer every year in the name of research. The last directive of the European Commission designed to address the issues of animals being mistreated for research was made in 1986. But things have changed. In recent years more experiments involving transfer of genes from one species to another (called genetic engineering) have been carried out, so new guidelines are required. In May 2009 the European Parliament voted to update the rules to better protect laboratory animals. One of their recommendations was a ban on experiments using great apes except those cases where it would benefit the apes themselves, or when this was the only option to investigate diseases that threaten humans. Hepatitis C, for example, only occurs in humans and chimpanzees, so there is little option but to use chimps in scientific research into this disease. However, this and other proposed changes are unlikely to be adopted for at least three years.

**Q25** We will have to wait for a directive to be passed that aims to protect animals from being mistreated for research.

True	False	Cannot say
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The passage states that whilst out of date, a directive of the European Commission made in 1986 was designed to address the issues of animals being mistreated for research.

**Q26** New guidelines on the use of animals in scientific research are needed which include the recent increase in research using genetic engineering.

True False Cannot say

The passage states that in recent years more experiments involving the transfer of genes from one species to another (genetic engineering) have been carried out, and that new guidelines are required.

**Q27** In 1986 genes had not been transferred from one animal to another.

True	False	Cannot say
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Whilst the passage tells us that the 1986 directive from the European Commission needs updating to reflect genetic engineering, we are not told either way if this had been carried out or not.



Identity theft and identity fraud are crimes that were almost unheard of a few years ago. Yet the number of recorded cases of these crimes in the UK increased from 9,000 in 1999 to 77,500 in 2007. Identity theft is the misappropriation of the identity of another person. Identity fraud is the use of this identity theft in criminal activity. In modern society you need to prove your identity for all sorts of reasons - to open a bank account, to obtain a loan, for credit when you make purchases, and so on. An identity thief can use your personal details to do any of these things, even to claim a benefit in your name. All he needs is access to a few of your personal details or a document bearing your name. The identity fraudster can steal or forge your documents, such as a passport or a driving licence, and use them in criminal activity. In the game of technology catch-up, passport producers are still one step ahead of the fraudsters, so most organisations see this as their primary method of identification. To protect yourself from identity theft, make sure that you don't give away any personal details unless you are sure it's safe to do so, and always keep your documents in a safe place.

**Q28** The number of recorded cases of identity theft and identity fraud in the UK has risen exponentially from 9,000 in 1999 to 77,500 in 2007.

True	False	Cannot say
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The statistics provided in the passage do not mention an exponential growth. The passage gives only the figures for 1999 and 2007; the nature of growth or decline within these dates is not given.

Q29 Some identity thieves steal another person's identity to obtain a benefit in his or her name.

True False Cannot say

The passage states that an identity thief can even claim a benefit in your name, however the passage does not tell us if any identity thieves actually do this.

- **Q30** Identify fraud means that passports are rarely accepted as a method of identification.
  - True False Cannot say

The passage tells us that "most organisations see this [the passports] as their primary method of identification".

