

IELTS Academic Reading Sample 96 - Early Childhood Education

Early Childhood Education

New Zealand's National Pony spokesman on education, Dr Lockwood Smith, recently visited the US and Britain. Here he reports on the findings of his trip and what they could mean for New Zealand's education policy

A

'Education To Be More' was published last August. It was the report of the New Zealand Government's Early Childhood Care and Education Working Group. The report argued for enhanced equity of access and better funding for childcare and early childhood education institutions. Unquestionably, that's a real need; but since parents don't normally send children to pre-schools until the age of three, are we missing out on the most important years of all?

B

A 13-year study of early childhood development at Harvard University has shown that, by the age of three, most children have the potential to understand about 1000 words - most of the language they will use in ordinary conversation for the rest of their lives. Furthermore, research has shown that while every child is born with a natural curiosity, it can be suppressed dramatically during the second and third years of life. Researchers claim that the human personality is formed during the first two years of life, and during the first three years children learn the basic skills they will use in all their later learning both at home and at school. Once over the age of three, children continue to expand on existing knowledge of the world.

C

It is generally acknowledged that young people from poorer

The programme involved trained parent-educators visiting the parents' home and working with the parent, or parents, and the child. Information on child development, and guidance on things to look for and expect as the child grows were provided, plus guidance in fostering the child's intellectual, language, social and motor-skill development. Periodic check-ups of the child's educational and sensory development (hearing and vision) were made to detect possible handicaps that interfere with growth and development. Medical problems were referred to professionals.

Parent-educators made personal visits to homes and monthly group meetings were held with other new parents to share experience and discuss topics of interest. Parent resource centres, located in school buildings, offered learning materials for families and facilitators for child care.

E

At the age of three, the children who had been involved in the 'Missouri' programme were evaluated alongside a cross-section of children selected from the same range of socio-economic backgrounds and family situations, and also a random sample of children that age. The results were phenomenal.

By the age of three, the children in the programme were significantly more advanced in language development than their peers, had made greater strides in problem solving and

socio-economic backgrounds tend to do less well in our education system. That's observed not just in New Zealand, but also in Australia, Britain and America. In an attempt to overcome that educational under-achievement, a nationwide programme called 'Headstart' was launched in the United States in 1965. A lot of money was poured into it. It took children into pre-school institutions at the age of three and was supposed to help the children of poorer families succeed in school.

Despite substantial funding, results have been disappointing. It is thought that there are two explanations for this. First, the programme began too late. Many children who entered it at the age of three were already behind their peers in language and measurable intelligence. Second, the parents were not involved. At the end of each day, 'Headstart' children returned to the same disadvantaged home environment.

D

As a result of the growing research evidence of the importance of the first three years of a child's life and the disappointing results from 'Headstart', a pilot programme was launched in Missouri in the US that focused on parents as the child's first teachers. The 'Missouri' programme was predicated on research showing that working with the family, rather than bypassing the parents, is the most effective way of helping children get off to the best possible start in life. The four-year pilot study included 380 families who were about to have their first child and who represented a cross-section of socio-economic status, age and family configurations. They included single-parent and two-parent families, families in which both parents worked, and families with either the mother or father at home.

other intellectual skills, and were further along in social development. In fact, the average child on the programme was performing at the level of the top 15 to 20 per cent of their peers in such things as auditory comprehension, verbal ability and language ability.

Most important of all, the traditional measures of 'risk', such as parents' age and education, or whether they were a single parent, bore little or no relationship to the measures of achievement and language development. Children in the programme performed equally well regardless of socio-economic disadvantages.

Child abuse was virtually eliminated. The one factor that was found to affect the child's development was family stress leading to a poor quality of parent-child interaction. That interaction was not necessarily bad in poorer families.

F

These research findings are exciting. There is growing evidence in New Zealand that children from poorer socio-economic backgrounds are arriving at school less well developed and that our school system tends to perpetuate that disadvantage.

The initiative outlined above could break that cycle of disadvantage.

The concept of working with parents in their homes, or at their place of work, contrasts quite markedly with the report of the Early Childhood Care and Education Working Group. Their focus is on getting children and mothers access to childcare and institutionalised early childhood education. Education from the age of three to five is undoubtedly vital, but without a similar focus on parent education and on the vital importance of the first three years, some evidence indicates that it will not be enough to overcome educational inequity.

Questions 1-4

Reading Passage 79 has six sections, **A-F**.

Which paragraph contains the following information?

Write the correct letter **A-F** in boxes **1-4** on your answer sheet.

1 details of the range of family types involved in an education programme

2 reasons why a child's early years are so important

3 reasons why an education programme failed

4 a description of the positive outcomes of an education programme

Questions 5-10

Classify the following features as characterising

A the 'Headstart' programme

B the 'Missouri' programme

C both the 'Headstart' and the 'Missouri' programmes

D neither the 'Headstart' nor the 'Missouri' programme

Write the correct letter **A, B, C** or **D** in boxes **5-10** on your answer sheet.

5 was administered to a variety of poor and wealthy families

6 continued with follow-up assistance in elementary schools

7 did not succeed in its aim

8 supplied many forms of support and training to parents

9 received insufficient funding

10 was designed to improve pre-schoolers' educational development

Questions 11-13

Do the following statements agree with the information given in Reading Passage 79?

In boxes **11-13** on your answer sheet, write:

YES if the statement agrees with the writer's claims

NO if the statement contradicts the writer's claims

NOT GIVEN if there is impossible to say what the writer thinks about this

11 Most 'Missouri' programme three-year-olds scored highly in areas such as listening, speaking, reasoning and interacting with others.

12 'Missouri' programme children of young, uneducated, single parents scored less highly on the tests.

13 The richer families in the 'Missouri' programme had higher stress levels.

Answer:

1. D 2. B 3. C 4. E 5. B 6. D 7. A 8. B 9. D 10. C 11. TRUE 12. FALSE 13. NOT GIVEN

IELTS Academic Reading Sample 97 - Air Traffic Control in the USA

You should spend about 20 minutes on Questions **14-26** which are based on the reading passage 97 below

Question 14- 19

Reading Passage 78 has seven paragraphs, **A-G**.

Choose the correct heading for paragraph **A & C-G** from the list below.

Write the correct number **i-ix**, in boxes **14- 19** on your answer sheet.

List of Headings:

- i Disobeying FAA Regulations**
- ii Aviation disaster prompts action**
- iii Two coincidental developments**
- iv Setting Altitude Zones**
- v An oversimplified view**
- vi Controlling pilots' licence**
- vii Defining airspace categories**
- viii Setting rules to weather conditions**
- ix Taking of Safety**
- x First step towards ATC**

Example	Answer
Paragraph B	X

- 14. Paragraph A
- 15. Paragraph C
- 16. Paragraph D
- 17 Paragraph E
- 18. Paragraph F
- 19 Paragraph G

AIR TRAFFIC CONTROL IN THE USA

A An accident that occurred in the skies over the Grand Canyon in 1956 resulted in the establishment of the Federal Aviation Administration (FAA) to regulate and oversee the operation of aircraft in the skies over the United States, which were becoming quite congested. The resulting structure of air traffic control has greatly increased the safety of flight in the United States, and similar air traffic control procedures are also in place

over much of the rest of the world.

B Rudimentary air traffic control (ATC) existed well before the Grand Canyon disaster. As early as the 1920s, the earliest air traffic controllers manually guided aircraft in the vicinity of the airports, using lights and flags, while beacons and flashing lights were placed along cross-country routes to establish the earliest airways. However, this purely visual system was useless in bad weather, and, by the 1930s, radio communication was coming into use for ATC. The first region to have something approximating today's ATC was New York City, with other major metropolitan areas following soon after.

C In the 1940s, ATC centres could and did take advantage of the newly developed radar and improved radio communication brought about by the Second World War, but the system remained rudimentary. It was only after the creation of the FAA that full-scale regulation of America's airspace took place, and this was fortuitous, for the advent of the jet engine suddenly resulted in a large number of very fast planes, reducing pilots' margin of error and practically demanding some set of rules to keep everyone well separated and operating safely in the air.

D Many people think that ATC consists of a row of controllers sitting in front of their radar screens at the nation's airports, telling arriving and departing traffic what to do. This is a very incomplete part of the picture. The FAA realised that the airspace over the United States would at any time have many different kinds of planes, flying for many different purposes, in a variety of weather conditions, and the same kind of structure was needed to accommodate all of them.

E To meet this challenge, the following elements were put into effect. First, ATC extends over virtually the entire United States. In general, from 365m above the ground and higher, the entire country is blanketed by controlled airspace. In certain areas, mainly near airports, controlled airspace extends down to 215m above the ground, and, in the immediate vicinity of an airport, all the way down to the surface. Controlled airspace is that airspace in which FAA regulations apply. Elsewhere, in uncontrolled airspace, pilots are bound by fewer regulations. In this way, the recreational pilot who simply wishes to go flying for a while without all the restrictions imposed by the FAA has only to stay in uncontrolled airspace, below 365m, while the pilot who does want the protection afforded by ATC can easily enter the controlled airspace.

F The FAA then recognised two types of operating environments. In good meteorological conditions, flying would be permitted under Visual Flight Rules (VFR), which suggests a strong reliance on visual cues to maintain an acceptable level of safety. Poor visibility necessitated a set of Instrumental Flight Rules (IFR), under which the pilot relied on altitude and navigational information provided by the plane's instrument panel to fly safely. On a clear day, a pilot in controlled airspace can choose a VFR or IFR flight plan, and the FAA

regulations were devised in a way which accommodates both VFR and IFR operations in the same airspace. However, a pilot can only choose to fly IFR if they possess an instrument rating which is above and beyond the basic pilot's license that must also be held.

G Controlled airspace is divided into several different types, designated by letters of the alphabet. Uncontrolled airspace is designated Class F, while controlled airspace below 5,490m above sea level and not in the vicinity of an airport is Class E. All airspace above 5,490m is designated Class A. The reason for the division of Class E and Class A airspace stems from the type of planes operating in them. Generally, Class E airspace is where one finds general aviation aircraft (few of which can climb above 5,490m anyway), and commercial turboprop aircraft. Above 5,490m is the realm of the heavy jets, since jet engines operate more efficiently at higher altitudes. The difference between Class E and A airspace is that in Class A, all operations are IFR, and pilots must be instrument-rated, that is, skilled and licensed in aircraft instrumentation. This is because ATC control of the entire space is essential. Three other types of airspace, Classes D, C and B, govern the vicinity of airports. These correspond roughly to small municipal, medium-sized metropolitan and major metropolitan airports respectively, and encompass an increasingly rigorous set of regulations. For example, all a VFR pilot has to do to enter Class C airspace is establish two-way radio contact with ATC. No explicit permission from ATC to enter is needed, although the pilot must continue to obey all regulations governing VFR flight. To enter Class B airspace, such as on approach to a major metropolitan airport, an explicit ATC clearance is required. The private pilot who cruises without permission into this airspace risks losing their license.

Question 20-26

Do the following statements agree with the given information of the reading passage?

In boxes **20-26** on your answer sheet, **write**:

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

20. The FAA was created as a result of the introduction of the jet engine.
21. Air traffic control started after the Grand Canyon crash in 19 56.
22. Beacons and flashing lights are still used by the ATC today.
23. Some improvements were made in radio communication during World War II.
24. Class F airspace is airspace which is below 365m and not near airports.
25. All aircraft in class E airspace must use AFR.
26. A pilot entering class C airspace is flying over an average-sized city.

Answer:

14. ii 15. iii 16. v 17. iv 18. viii 19. vii 20. FALSE 21. FALSE 22. NOT GIVEN 23. TRUE 24.
TRUE 25. FALSE 26. TRUE

IELTS Academic Reading Sample 98 - A Chronicle of Timekeeping

You should spend about **20** minutes on Questions **1-13**, which are based on Reading Passage below.

A Chronicle of Timekeeping

Our conception of time depends on the way we measure it



A According to archaeological evidence, at least 5,000 years ago, and long before the advent of the Roman Empire, the Babylonians began to measure time, introducing calendars to co-ordinate communal activities, to plan the shipment of goods and, in particular, to regulate planting and harvesting. They based their calendars on three natural cycles: the solar day, marked by the successive periods of light and darkness as the earth rotates on its axis; the lunar month, following the phases of the moon as it orbits the earth; and the solar year, defined by the changing seasons that accompany our planet's revolution around the sun.

B Before the invention of artificial light, the moon had greater social impact. And, for those living near the equator in particular, its waxing and waning was more conspicuous than the passing of the seasons. Hence, the calendars that were developed at the lower latitudes were influenced more by the lunar cycle than by the solar year. In more northern climes, however, where seasonal agriculture was practised, the solar year became more crucial. As the Roman Empire expanded northward, it organised its activity chart for the most part around the solar year.

C Centuries before the Roman Empire, the Egyptians had formulated a municipal calendar having 12 months of 30 days, with five days added to approximate the solar year. Each period of ten days was marked by the appearance of special groups of stars called decans. At the rise of the star Sirius just before sunrise, which occurred around the all-important annual flooding of the Nile, 12 decans could be seen spanning the heavens. The cosmic significance the Egyptians placed in the 12 decans led them to develop a system in which each interval of darkness (and later, each interval of daylight) was divided into a dozen equal parts. These periods became known as temporal hours because their duration varied according to the changing length of days and nights with the passing of the seasons. Summer hours were long, winter ones short; only at the spring and autumn equinoxes were the hours of daylight and darkness equal. Temporal hours, which were first adopted by

the Greeks and then the Romans, who disseminated them through Europe, remained in use for more than 2,500 years.

D In order to track temporal hours during the day, inventors created sundials, which indicate time by the length or direction of the sun's shadow. The sundial's counterpart, the water clock, was designed to measure temporal hours at night. One of the first water clocks was a basin with a small hole near the bottom through which the water dripped out. The falling water level denoted the passing hour as it dipped below hour lines inscribed on the inner surface. Although these devices performed satisfactorily around the Mediterranean, they could not always be depended on in the cloudy and often freezing weather of northern Europe.

E The advent of the mechanical clock meant that although it could be adjusted to maintain temporal hours, it was naturally suited to keeping equal ones. With these, however, arose the question of when to begin counting, and so, in the early 14th century, a number of systems evolved. The schemes that divided the day into 24 equal parts varied according to the start of the count: Italian hours began at sunset, Babylonian hours at sunrise, astronomical hours at midday and 'great clock' hours, used for some large public clocks in Germany, at midnight. Eventually these were superseded by 'small clock', or French, hours, which split the day into two 12-hour periods commencing at midnight.

F The earliest recorded weight-driven mechanical clock was built in 1283 in Bedfordshire in England. The revolutionary aspect of this new timekeeper was neither the descending weight that provided its motive force nor the gear wheels (which had been around for at least 1,300 years) that transferred the power; it was the part called the escapement. In the early 1400s came the invention of the coiled spring or fusee which maintained constant force to the gear wheels of the timekeeper despite the changing tension of its mainspring. By the 16th century, a pendulum clock had been devised, but the pendulum swung in a large arc and thus was not very efficient.

G To address this, a variation on the original escapement was invented in 1670, in England. It was called the anchor escapement, which was a lever-based device shaped like a ship's anchor. The motion of a pendulum rocks this device so that it catches and then releases each tooth of the escape wheel, in turn allowing it to turn a precise amount. Unlike the original form used in early pendulum clocks, the anchor escapement permitted the pendulum to travel in a very small arc. Moreover, this invention allowed the use of a long pendulum which could beat once a second and thus led to the development of a new floor-standing case design, which became known as the grandfather clock.

H Today, highly accurate timekeeping instruments set the beat for most electronic devices. Nearly all computers contain a quartz-crystal clock to regulate their operation. Moreover, not only do time signals beamed

down from Global Positioning System satellites calibrate the functions of precision navigation equipment, they do so as well for mobile phones, instant stock-trading systems and nationwide power-distribution grids. So integral have these time-based technologies become to day-to-day existence that our dependency on them is recognised only when they fail to work.

Questions 1-4

Reading Passage 77 has eight paragraphs, **A-H**.

Which paragraph contains the following information?

Write the correct letter, **A-H**, in boxes **1- 4** on your answer sheet.

- 1** a description of an early timekeeping invention affected by cold temperatures
- 2** an explanation of the importance of geography in the development of the calendar in farming communities
- 3** a description of the origins of the pendulum clock
- 4** details of the simultaneous efforts of different societies to calculate time using uniform hours

Questions 5-8

Look at the following events (**Questions 5-8**) and the list of nationalities below.

Match each event with the correct nationality, **A-F**.

Write the correct letter, **A-F**, in boxes **5-8** on your answer sheet.

- 5** They devised a civil calendar in which the months were equal in length.
- 6** They divided the day into two equal halves.
- 7** They developed a new cabinet shape for a type of timekeeper.
- 8** They created a calendar to organise public events and work schedules.

List of Nationalities

A Babylonians

B Egyptians

C Greeks

D English

E Germans

F French

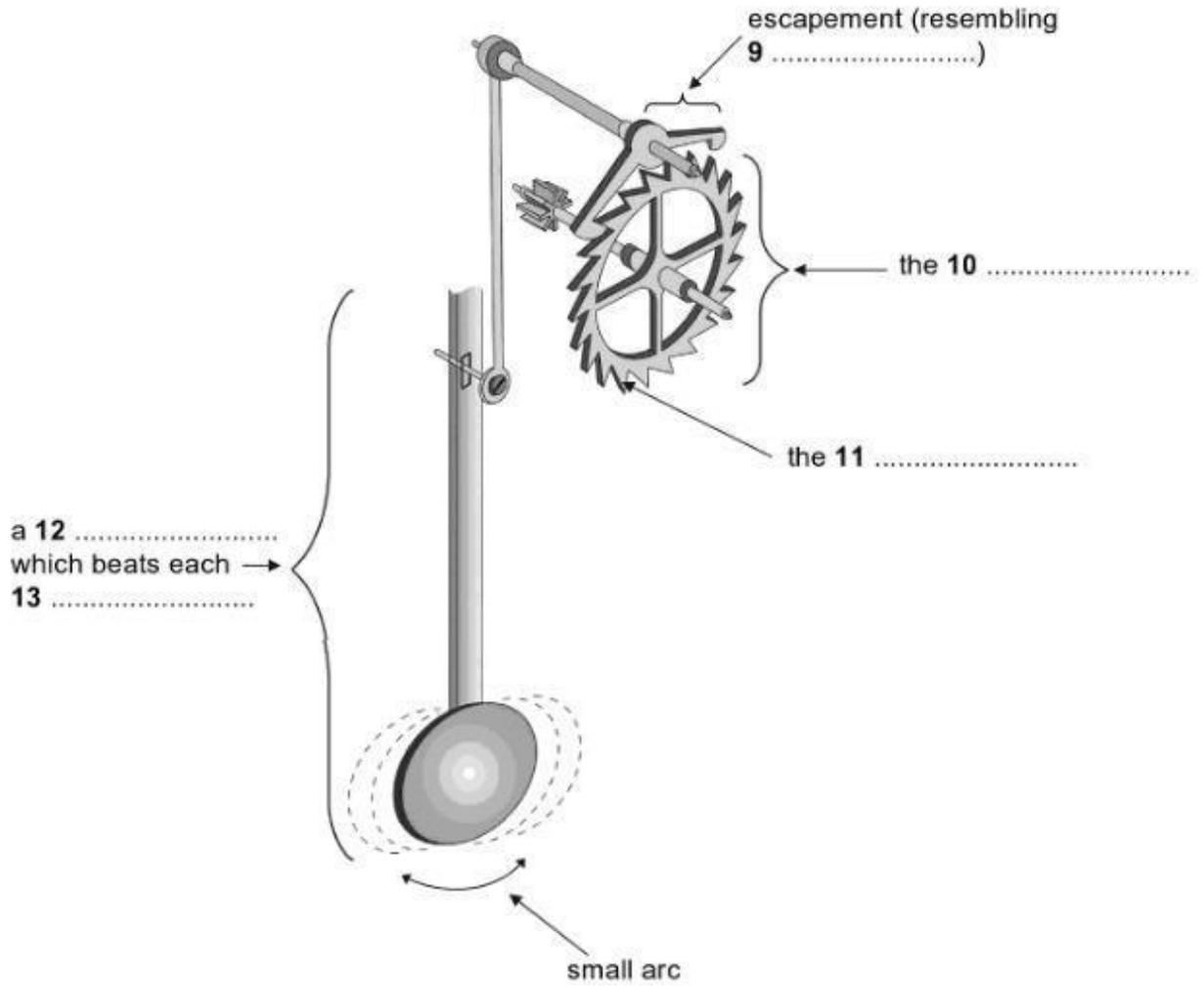
Questions 9-13

Label the diagram below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes **9-13** in your answer sheet

How the 1670 lever-based device worked



Answer:

1. D 2. B 3. F 4. E 5. B 6. F 7. D 8. A 9. (ship's) anchor / (an/ the) anchor 10. (escape) wheel 11. tooth 12. (long) pendulum 13. second

IELTS Academic Reading Sample 99 - What's so funny?

What's so funny?

John McCrone reviews recent research on humour

The joke comes over the headphones: 'Which side of a dog has the most hair? The left.' No, not funny. Try again. 'Which side of a dog has the most hair? The outside.' Hah! The punchline is silly yet fitting, tempting a smile, even a laugh. Laughter has always struck people as deeply mysterious, perhaps pointless. The writer Arthur Koestler dubbed it the luxury reflex: 'unique in that it serves no apparent biological purpose'.

Theories about humour have an ancient pedigree. Plato expressed the idea that humour is simply a delighted feeling of superiority over others. Kant and Freud felt that joke-telling relies on building up a psychic tension which is safely punctured by the ludicrousness of the punchline. But most modern humour theorists have settled on some version of Aristotle's belief that jokes are based on a reaction to or resolution of incongruity, when the punchline is either a nonsense or, though appearing silly, has a clever second meaning.

Graeme Ritchie, a computational linguist in Edinburgh, studies the linguistic structure of jokes in order to understand not only humour but language understanding and reasoning in machines. He says that while there is no single format for jokes, many revolve around a sudden and surprising conceptual shift. A comedian will present a situation followed by an unexpected interpretation that is also apt.

So even if a punchline sounds silly, the listener can see there is a clever semantic fit and that sudden mental 'Aha!' is the buzz that makes us laugh. Viewed from this angle, humour is just a form of creative insight, a sudden leap to a new perspective.

However, there is another type of laughter, the laughter of social appeasement and it is important to understand this too. Play is a crucial part of development in most young mammals. Rats produce ultrasonic squeaks to prevent their scuffles turning nasty. Chimpanzees have a 'play-face' - a gaping expression accompanied by a panting 'ah, ah' noise. In humans, these signals have mutated into smiles and laughs. Researchers believe social situations, rather than cognitive events such as jokes, trigger these instinctual markers of play or appeasement. People laugh on fairground rides or when tickled to flag a play situation, whether they feel amused or not.

Both social and cognitive types of laughter tap into the same expressive machinery in our brains, the emotion and motor circuits that produce smiles and excited vocalisations. However, if cognitive laughter is the product of more general thought processes, it should result from more expansive brain activity.

Psychologist Vinod Goel investigated humour using the new technique of 'single event' functional magnetic resonance imaging (fMRI). An MRI scanner uses magnetic fields and radio waves to track the changes in oxygenated blood that accompany mental activity. Until recently, MRI scanners needed several minutes of activity and so could not be used to track rapid thought processes such as comprehending a joke. New developments now allow half-second 'snapshots' of all sorts of reasoning and problem-solving activities.

Although Goel felt being inside a brain scanner was hardly the ideal place for appreciating a joke, he found evidence that understanding a joke involves a widespread mental shift. His scans showed that at the beginning of a joke the listener's prefrontal cortex lit up, particularly the right prefrontal believed to be critical for problem solving. But there was also activity in the temporal lobes at the side of the head (consistent with attempts to rouse stored knowledge) and in many other brain areas. Then when the punchline arrived, a new area sprang to life -the orbital prefrontal cortex. This patch of brain tucked behind the orbits of the eyes is associated with evaluating information.

Making a rapid emotional assessment of the events of the moment is an extremely demanding job for the brain, animal or human. Energy and arousal levels may need, to be retuned in the blink of an eye. These abrupt changes will produce either positive or negative feelings. The orbital cortex, the region that becomes active in Goel's experiment, seems the best candidate for the site that feeds such feelings into higher-level thought processes, with its close connections to the brain's sub-cortical arousal apparatus and centres of metabolic control.

All warm-blooded animals make constant tiny adjustments in arousal in response to external events, but humans, who have developed a much more complicated internal life as a result of language, respond emotionally not only to their surroundings, but to their own thoughts. Whenever a sought-for answer snaps into place, there is a shudder of pleased recognition. Creative discovery being pleasurable, humans have learned to find ways of milking this natural response. The fact that jokes tap into our general evaluative machinery explains why the line between funny and disgusting, or funny and frightening, can be so fine. Whether a joke gives pleasure or pain depends on a person's outlook.

Humour may be a luxury, but the mechanism behind it is no evolutionary accident. As Peter Derks, a psychologist at William and Mary College in Virginia, says: 'I like to think of humour as the distorted mirror of the mind. It's creative, perceptual, analytical and lingual. If we can figure out how the mind processes humour, then we'll have a pretty good handle on how it works in general.'

Questions 14-20

Do the following statements agree with the information given in Reading Passage 76?

In boxes **14-20** on your answer sheet, write

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

14 Arthur Koestler considered laughter biologically important in several ways.

15 Plato believed humour to be a sign of above-average intelligence.

16 Kant believed that a successful joke involves the controlled release of nervous energy.

17 Current thinking on humour has largely ignored Aristotle's view on the subject.

18 Graeme Ritchie's work links jokes to artificial intelligence.

19 Most comedians use personal situations as a source of humour.

20 Chimpanzees make particular noises when they are playing.

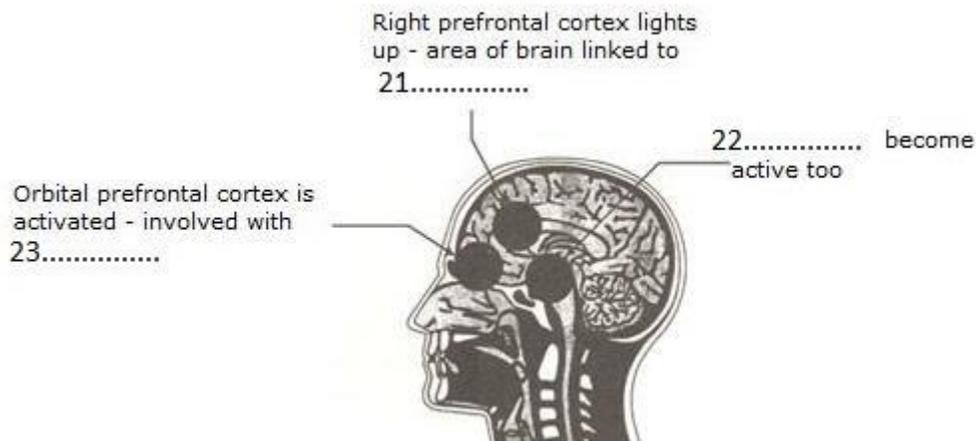
Questions 21-23

The diagram below shows the areas of the brain activated by jokes.

Label the diagram.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes **11-23** on your answer sheet.



Questions 24-27

Complete each sentence with the correct ending **A-G** below.

Write the correct letter **A-G** in boxes **24-27** on your answer sheet.

- 24 One of the brain's most difficult tasks is to
- 25 Because of the language they have developed, humans
- 26 Individual responses to humour
- 27 Peter Derks believes that humour

- A react to their own thoughts.
- B helped create language in humans.
- C respond instantly to whatever is happening.
- D may provide valuable information about the operation of the brain.
- E cope with difficult situations.
- F relate to a person's subjective views.
- G led our ancestors to smile and then laugh.

Answer:

14. FALSE 15. NOT GIVEN 16. TRUE 17. FALSE 18. TRUE 19. NOT GIVEN 20. TRUE 21. problem solving 22. temporal lobes 23. evaluating information 24. C 25. A 26. F 27. D