

A hand holding a red pen, poised to write on a notebook. The background is a warm, orange-toned photograph. The entire page is framed by a thick orange border. In the top right corner, there is a light blue circle with an orange center. In the bottom left corner, there is a large light blue circle with an orange center. A white, torn-paper-like shape separates the central image from the yellow text box.

CAE

USE OF ENGLISH AND
READING

PART 1

Test 3

Reading and Use of English Part 1

For questions 1 – 8, read the text below and decide which answer (A, B, C, or D) best fits each gap. There is an example at the beginning (0).

Mark your answers on the separate answer sheet.

Example:

0 A praised B honoured C credited D admired

0	A	B	C	D
☐	☐	☐	☐	☐

Violins and the human voice

The sixteenth-century instrument-maker Andrea Amati is (0) with inventing the modern violin. Over a hundred years later, another Italian, Antonio Stradivari, introduced adjustments to Amati's designs, creating violins that are now (1) considered to be the finest ever made. But why do these violins sound so beautiful? Where does the secret to their brilliance (2)?

Recent research suggests that it (3) from the way their sounds (4) to the human voice. Scientists recorded antique violins and compared them with the sounds of male and female vocalists. Their (5) focus was on 'formants', harmonic tones characteristic of human voices, and they found that Amati violins produced 'formants' similar to those of bass and baritone singers, while those of Stradivari violins were similar to tenors and altos. 'Stradivari violins clearly possess female singing qualities,' said one researcher, 'and this may well (6) to their perceived sweetness.'

The (7) between the violins and human voices is not accidental. 'Early violins accompanied songs and dances,' said the researcher. 'It's conceivable that Amati and Stradivari wanted instruments that could (8) into the music by imitating human voices.'

- | | | | |
|-----------------|---------------|--------------|--------------|
| 1 A highly | B widely | C greatly | D strongly |
| 2 A stand | B rest | C sit | D lie |
| 3 A stems | B flows | C runs | D grows |
| 4 A approach | B comply | C correspond | D accord |
| 5 A specific | B prevalent | C eminent | D accurate |
| 6 A deliver | B generate | C assist | D contribute |
| 7 A sympathy | B resemblance | C coherence | D sameness |
| 8 A suit | B match | C blend | D mingle |

PART 2

Test 3

Reading and Use of English Part 2

For questions 9 – 16, read the text below and think of the word which best fits each gap. Use only one word in each gap. There is an example at the beginning (0).

Write your answers **IN CAPITAL LETTERS** on the separate answer sheet.

Example: 0 I F

Effective learning

At one time, many experts believed that students would become more effective learners (0) they were made aware of learning styles that suited them. (9) the 1980s onwards, theorists identified a number of learning styles, some of (10) were visual, verbal, auditory and kinaesthetic learning. A kinaesthetic learner, for example, would benefit from using their body and sense of touch when learning.

Over time, however, these concepts have fallen out of favour. 'They're (11) longer up to date,' says educational psychologist Dr Lorna Mulhall. 'Taking a flexible approach (12) than sticking to one particular learning style makes better sense. In my experience, (13) an active learner is usually the key to success.'

Research shows that (14) of the best ways to learn something is to imagine teaching it. 'Think about (15) you will explain it to someone in a classroom,' says Dr Mulhall. 'To teach something, you need to understand it.' Dr Mulhall also recommends some basic principles. These include 'finding the right environment, efficient note-taking and taking breaks. (16) comes a point where you can't absorb any more information and you need to do something different.'

PART 3

Test 3

Reading and Use of English Part 3

For questions 17 – 24, read the text below. Use the word given in capitals at the end of some of the lines to form a word that fits in the gap in the same line. There is an example at the beginning (0).

Write your answers **IN CAPITAL LETTERS** on the separate answer sheet.

Example: 0 EVIDENCE

The world's oldest known bread

Archaeologists working at a site in Jordan recently found the oldest reported (0) _____ of bread. Identified by means of new (17) _____ developments involving the magnification of tiny fragments of food, the bread is about 14,400 years old and (18) _____ the advent of agriculture by at least 4,000 years.

EVIDENT

METHODOLOGY

DATE

DISCOVER

PRIMARY

PRESENT

EXCEPTION

CONSUME

EMERGE

The (19) _____ was made in a location used, over thousands of years, by early hunter-gatherers. At that time, humans gathered and consumed food for purposes that were (20) _____ nutritional, but archaeologists think the huge effort required to produce bread meant it was probably reserved for special occasions.

'The (21) _____ of the ancient remains of burned food in the fireplaces at this site gives us some (22) _____ useful insights,' said one researcher. 'Bread represents a major change in eating practices, away from food as merely a source of energy to the (23) _____ of food for social and cultural reasons. We used to think agriculture led to the development of bread, but now we think bread-making, with wild grain, may have influenced the (24) _____ of the practice of growing crops – in other words, the beginning of agriculture.'

PART 4

Test 3 Reading and Use of English Part 4

For questions 25 – 30, complete the second sentence so that it has a similar meaning to the first sentence, using the word given. **Do not change the word given.** You must use between **three** and **six** words, including the word given. Here is an example (0).

Example:

- 0 'I'm sorry I got to your party so late,' Joanna said to her friend.

HAVING

Joanna apologised to her friend up so late at her party.

The gap can be filled with the words 'for having turned', so you write:

Example: 0 FOR HAVING TURNED

Write **only** the missing words **IN CAPITAL LETTERS** on the separate **answer sheet**.

- 25 My grandfather can't play any complicated tunes on the piano any more.

CAPABLE

My grandfather is no any complicated tunes on the piano.

- 26 Wherever you buy petrol, the price is always the same.

DIFFERENCE

It doesn't you buy petrol because the price is always the same.

- 27 'I'm not feeling well, so I won't go to my dance class for once,' Julie said.

GIVE

Julie said she wasn't feeling well and that she miss for once.

- 28 Beppe often appears to lack confidence, but he's just shy.

ACROSS

Beppe often confidence, but he's just shy.

- 29 The train was cancelled because of a staff shortage.

RESULTED

A staff shortage cancelled.

- 30 Sara's father said she shouldn't quit the course, but she still went ahead and did it.

BEEN

Sara quit the course in spite not to by her father.

PART 5

Test 3

Reading and Use of English Part 5

You are going to read an article about the sport of indoor climbing. For questions 31 – 36, choose the answer (A, B, C or D) which you think fits best according to the text.

Mark your answers on the separate answer sheet.

Climbing walls

John Greene visits a climbing centre, called The Crag, to investigate a sport that's becoming increasingly popular.

It's a Saturday morning and I'm just four metres from the ground, clinging to a wall and suddenly remembering that I am terrified of heights. Although my ascent was far from effortless, it was basically fine while I was moving. But now I've reached the top and can't find a foothold to start back down. My heart is hammering and my whole body is cold. I could just let go and drop to the thick, soft safety mats below; but although I know that wouldn't hurt, somehow it seems inconceivable.

I am here to find out why so many people are falling in love with indoor climbing. There were recently estimated to be over 35 million climbers worldwide, and in the UK alone the numbers are growing by 15–20% a year. I tried it once before, two decades ago. It was in a converted warehouse – as with so many climbing centres, enthusiasts had seen the potential in large empty industrial structures. In those days, climbing was a fringe activity, and venues were few and far between. Little had changed since the 1960s, when the first walls were created so that proper mountaineers could get some practice when weather, or lack of time, kept them from their usual haunts. Numbers have exploded since those times and there are now 500 or so walls in different cities around the UK.

Sam Bailey has volunteered to show me around The Crag. Like many indoor climbers, he focuses on 'bouldering' – tackling walls of no more than five metres, free of the usual heavy climbing gear designed to prevent a fall – rather than roped climbing, where lines (to which you're attached with a harness and various metal clips) let you go higher, but with considerably more faff. If that sounds like a soft option, it's not: the hand- and footholds for bouldering can be little more than bumps in the wall, and that wall sometimes tilts back on itself so that it overhangs the floor.

So, what's the attraction? 'I find it really hard not to think about work all the time,' says Katia Lennon, who has been climbing for two years. 'The wall is the one place where I don't even need to try to switch off. You just focus on what you're doing and it's very therapeutic.' 'There's lots of problem-solving, working out where to put your hands and feet,' Sam Bailey says. 'The mental effort distracts you from doing much else. At the same time, all the different muscle groups are working and it's only when you stop that you realise how much you've exerted yourself.' Teresa Ibarra, a climbing instructor, points out – and this is echoed by everyone I talk to – that 'you don't need to be a great athlete to do it. All sorts of body shapes and ages get something out of it.' 'I've never been sporty,' says lab technician Lee Foo. 'But, a year ago, I did bouldering with some friends, and I've been hooked ever since. I now manage things I'd never have imagined possible.'

One thing that intrigues me, is the number of women in The Crag. 'It's non-threatening – super-chilled,' says 24-year-old Yasmine, when I mention this to her, 'unlike most gyms I've been to.' Other women I talk to make the same point. Jasmine has been climbing for three years and relishes the way that flexibility can trump brute force: 'You see muscly gym guys coming in and thinking they're going to do it easily, but it doesn't happen for them.' Another climber, Aleida, says: 'I don't feel at a disadvantage, and I know some other women who come here feel like me. If a tall strong guy does the climb with a one-arm pull-up, I can do it by throwing my leg into a split and balancing on a hold. My years of gymnastics when I was at school have really helped. Although I'm short and look relatively weak compared with others, I've got a leg-up in other ways.'

When I eventually unfreeze and make it back down to earth, I talk to Rebecca Peters, a maths teacher. She's been bringing her nine-year-old daughter Sophie to classes for about two years. 'I'm so impressed by how it develops young people,' she says.

I decide to have another go and share a wall with Sophie and her friend Luke. They are both vastly stronger, more agile and more confident than me. They also seem much more mature in their decision-making and team-working skills than I would normally expect from children their age – though thinking about what I've observed during my visit to The Crag, somehow it doesn't seem that surprising.

PART 5

- 31 What does the writer say about his situation in the first paragraph?
- A The temperature in the centre affects his mobility.
 - B Fear prevents him from climbing any higher.
 - C The idea of jumping to the floor is out of the question.
 - D Tiredness slows down his thoughts and movements.
- 32 What do the words 'usual haunts' in line 11 refer to?
- A early climbing walls
 - B outdoor rock climbs
 - C old industrial buildings
 - D urban climbing centres
- 33 What does the writer mean by the word 'faff' in line 16?
- A the predictability of some climbing routes
 - B the places where climbers can grip the walls
 - C the technical challenge involved in bouldering
 - D the inconvenience of dealing with safety equipment
- 34 The climbers mentioned in the fourth paragraph all comment on
- A the way that climbing appeals to a wide range of people.
 - B the psychological benefits that climbing can bring.
 - C the speed with which new climbers improve.
 - D the impact that climbing has on fitness.
- 35 Women say they prefer going to the climbing centre than to a gym because of
- A the welcoming atmosphere.
 - B the way it affects their bodies.
 - C the competitions they can take part in.
 - D the opportunity to meet like-minded people.
- 36 What is the writer doing in the final paragraph?
- A drawing attention to an unanticipated perspective
 - B summarising the main ideas addressed in the article
 - C elaborating on a point one of the speakers raised previously
 - D explaining his own feelings about climbing

PART 6

Test 3

Reading and Use of English Part 6

You are going to read four extracts from articles in which experts give their views on genetically modified crops. For questions 37 – 40, choose from the experts A – D. The experts may be chosen more than once.

Mark your answers **on the separate answer sheet**.

Genetically modified (GM) crops

A

The world has seen very rapid population growth in the last 50 years, and the world's population currently exceeds 7 billion and is forecast to rise beyond 11 billion by 2100. Ensuring an adequate food supply for everyone is a tremendous challenge. Without a massive increase in the quality and deployment of GM crops, unimaginable numbers are likely to go hungry. GM crop farming has taken off in some parts of the world – mainly the USA, Brazil, Argentina, India and Canada – with productivity in those countries improving significantly, generating welcome financial returns for growers. There are other benefits too. The cultivation of insect-resistant and herbicide-tolerant strains of soya beans and maize, for example, means that fewer chemical products are required than for conventional crops. This reduces the exposure of both people and local ecosystems to toxic materials, which has positive long-term consequences for both.

B

A recent study raised concerns about allergen levels in GM crops. Genetic modification often adds or mixes proteins that were not native to the original plant and which might cause new allergic reactions in the human body. In other studies, the introduction of GM crops was found to have decimated a butterfly population dependent on the varieties of plants that had been replaced, and other comparable worrying occurrences have been observed. The conclusion is that much more investigation is needed before such crops should be deregulated. This research is costly, however, and there's a convincing argument that the money would be better invested in improved roads and transportation. The truth is that food supplies have never been more abundant; they just don't get to everyone who needs them. GM technology won't solve this problem. In fact, GM seeds are expensive and growers are increasingly in debt and tied to a handful of large, profit-driven suppliers.

C

Proponents of GM technology will claim it's the only viable way to improve productivity sufficiently to meet the needs of a burgeoning global population. The real problem, however, isn't that there isn't enough food for all, but that what is available isn't distributed efficiently or fairly. GM crop users favour the technology because it simplifies their weed and pest management, bringing savings and improved profit margins. At the same time, certain lines of development are clearly promising. 'Golden rice', for example, is a bio-fortified GM crop which could help thousands of children around the world overcome vitamin A deficiency, and scientists are working on other projects to provide similarly nutritional enhancements. On the other hand, the simplified weed and pest management of GM technology tends to encourage monocultural farming – huge tracts of land are entirely devoted to the cultivation of soya beans, for example – and the elimination of biodiversity like this has adverse consequences.

PART 6

D

Any major shift in the way we produce food is bound to have certain undesirable results for some people, and opposition to large-scale GM farming is, to a degree, understandable. The evidence for the value of developing herbicide-tolerant and insect-resistant traits in certain key crops is overwhelming, however. They don't require nearly so much spraying of crops or ploughing and tilling of the soil, which, in turn, helps to conserve soil moisture and control erosion. It also means that GM farmers use heavy machinery less than their non-GM counterparts and this lowers their carbon footprint. Higher yields and lower pest management and labour costs mean that GM crop producers gain enhanced revenues. There is also great potential in the engineering of plants with superior levels of protein, essential fats and minerals. They are yet to be commercialised, but will be a valuable addition to our future diets.

Which expert

has a different view from C regarding whether more GM crops are necessary to feed the world?

37

shares B's view on whether GM crops cause environmental damage?

38

expresses a different view from the other three experts about the impact GM crops have on farmers?

39

has a different view from D regarding the effect GM crops may have on human health?

40