

Test 2

READING AND USE OF ENGLISH (1 hour 15 minutes)

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 great B high C wide D strong

0	A o	B ●	C o	D o
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Pigeons monitor air pollution levels in London

A team of racing pigeons flew over London recently in order to collect information on the UK capital's (0) pollution levels. The birds were each carrying a small lightweight backpack containing an air quality monitor which (1) measured levels of polluting gases as the birds flew around the city. The project wasn't (2) to be a permanent solution to air monitoring in London. It only lasted for three days, and was more concerned with raising awareness about the scale of the city's pollution problem.

People interested in finding out about the air quality in their area could send a message to the organisers (3) the internet. They then got an automated (4) , rating it on a scale of 'Fresh' to 'Extreme'.

Any attempt to improve air quality should be (5) by Londoners. And (6) residents aren't generally great fans of pigeons, this (7) flock of helpful racing pigeons may have changed some people's (8) to the birds.

- | | | | | |
|---|-------------------|----------------------|--------------------|---------------------|
| 1 | A entirely | B intensively | C endlessly | D constantly |
| 2 | A intended | B imagined | C arranged | D advised |
| 3 | A down | B with | C over | D along |
| 4 | A response | B return | C reaction | D repeat |
| 5 | A greeted | B received | C welcomed | D awarded |
| 6 | A despite | B although | C however | D even |
| 7 | A certain | B particular | C exact | D precise |
| 8 | A idea | B opinion | C view | D attitude |

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	T	H	E														
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Ice car racing

From January to March **(0)** temperature in the US state of Minnesota often drops to -40°C . That's when, in **(9)** to show off their driving skills, some people go to the area's frozen lakes that double up as racetracks. The cars used are standard family-type cars fitted with special tyres, designed **(10)** ensure they don't skid on the slippery ice.

The races are organised once the ice layer **(11)** reached a thickness of 46 cm. A maximum of ten cars take **(12)** in each race. With multiple cars racing around the track at speeds of 160 kmph, you might expect collisions to **(13)** a regular occurrence. In fact, that is not the case. **(14)** there have been minor accidents, the main hazard is flying snow dust rather than other cars.

Minnesota is not the **(15)** state to host such events. The sport is also popular in New York and Alaska, as **(16)** as in the Canadian provinces and parts of Europe.

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 E X C I T E D

Wild camping

I really enjoy camping with my dad, so I was very (0) when he suggested going wild camping – that’s camping in the middle of nowhere rather than at a campsite. This is not ideal for (17) campers, who might lack the necessary (18) skills. And you can’t just camp anywhere – it may be necessary to ask for (19) But my dad and I have been on many camping trips, and love the feeling of (20) it gives us. We were just being a bit more (21) this time.

One downside on a trip like this can be the unpredictable British weather, but we’d taken that into (22) and had plenty of warm clothes. Food’s important too, of course. (23) , Dad and I aren’t good cooks and I didn’t really enjoy our meals.

However, nothing else I’ve done has given me the same sense of freedom as wild camping. Without a doubt it was the most (24) trip I’ve ever been on.

- EXCITE
- EXPERIENCE
- SURVIVE
- PERMIT
- INDEPENDENT
- ADVENTURE
- CONSIDER
- FORTUNATE
- MEMORY

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 **two** and **five** words, including the word given. Here is an example (**0**).

Example:

- 0** Prizes are given out when the school year finishes.

PLACE

Prize-giving end of the school year.

The gap can be filled by the words 'takes place at the', so you write:

Example:

0

TAKES PLACE AT THE

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

- 25** 'You should watch the new documentary on penguins,' Nola told me.

ADVISED

Nola the new documentary on penguins.

- 26** The result was so surprising that it was impossible for anyone to predict.

SUCH

No one could ever surprising result.

- 27** My grandmother thinks that using mobile phones in restaurants is rude.

USE

My grandmother thinks that it mobile phones in restaurants.

- 28 'You can't cycle on the road without a helmet,' said Laura.

UNLESS

'You can't cycle on the roadon a helmet,'
said Laura.

- 29 'I don't think there's any milk left,' said Mum.

RUN

'We seem milk,' said Mum.

- 30 'I didn't see Dan at volleyball practice yesterday,' said Chris.

SIGN

'There Dan at volleyball practice yesterday,'
said Chris.

Part 5

You are going to read a magazine article about designing rollercoasters for amusement parks. 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.

Rollercoasters

Journalist Kashmira Gander found out about how rollercoasters are designed.

Imagine you're on a rollercoaster in an amusement park. Palms clammy with fear, nails digging into the harness, you come to a grinding halt and inhale sharply before the carriage creeps slowly upwards. A pause. Then a sharp drop and your stomach is suspended in the air. Teeth gritted, you hurtle quickly forwards, sharply left, then upside down. Your senses a blur, you let out a roar of fear that comes from the pit of your gut. But you only have yourself to blame: after all, like hundreds of millions of others each year, you were happy to pay the price of getting into a theme park.

What's somewhat mystifying to me is that amusement parks, with their hair-raising rides aimed at pulling in crowds, are a huge industry. To deliver the thrills and ultimate-escape-from-reality that guests seek, behind the scenes there are huge teams of highly inventive – and arguably a little cruel – structural, mechanical, industrial and electrical engineers, as well as designers and marketing experts.

'Rollercoaster designer' sounds like the career aspiration of a primary school child when asked what they want to be when they grow up. In reality, it's a big challenge: not just creating the perfect balance of pleasure and fear while ensuring that passengers are not in any danger, but also introducing enough novelty to keep visitors wanting more.

While the layperson may imagine that rollercoasters have become ever more intense, in fact, most of the techniques used today – including the wheel that allows rides to go upside-down – were invented by the USA designer John Miller in the early 20th century.

I spoke to three experts on rollercoasters. 'The skill,' said Professor Brendan Walker,

a 'thrill engineer' with a background in aeronautics, 'is in compiling the pieces.' And what that means, said Dr John Roberts, a fellow of the Royal Academy of Engineering, is 'swapping very rapidly between plus and minus, so people get the sense of being sort of thrown around but kept safe. It's a very fine line between people feeling the ride is thrilling and that feeling they've been bumped around.'

In the search for a superlative ride, the teams behind rollercoasters must piece together a strong narrative, be it a space adventure or a high-paced chase in the jungle, that works with any innovations – the tallest ride, the most twists, the steepest drops – to create a seamless experience. However, said Professor Walker, in the end, as in many creative industries, gut instincts, years of experience and trial-and-error are what work. 'It helps to be a bit of a thrill-nut if you are designing rollercoasters, in order to understand exactly what passengers are looking for, and to test your rides before they're opened to the public,' agreed Jeff Hornick, a senior director of theme park development.

Surely though, I asked them, as technology has transformed industry after industry, rollercoaster designers will also have to embrace the latest advances, such as virtual reality? Walker said we shouldn't hold our breath. 'Virtual reality can add a veneer, but only in the way that an old fashioned rollercoaster was fantastically painted,' he said. 'New technology comes along all the time, and the parks are very quick to embrace it because it is exciting and can add to ride experience. But underpinning that is the physical coaster experience, and I think that will remain king for many years to come.'

- 31 What does the writer say in the first paragraph about people who ride on rollercoasters?
- A They spend too much money trying to find excitement.
 - B They can't complain when they feel terrified.
 - C They often don't realise how frightening the experience will be.
 - D They should try to control their emotions more effectively.
- 32 What do we learn in the second paragraph about the writer's attitude towards rollercoasters?
- A She is concerned that they may have a negative effect on passengers.
 - B She believes they promise more excitement than they can deliver.
 - C She regrets that people feel the need to spend their leisure time in this way.
 - D She finds it hard to understand why so much effort is put into creating them.
- 33 What is suggested about rollercoaster designers in the third paragraph?
- A They have had the courage to follow their dreams.
 - B They should try harder to please theme park visitors.
 - C They deserve credit for doing a demanding job effectively.
 - D They are not the kind of people who can be taken seriously.
- 34 What is emphasised by 'it's a very fine line' in lines 46 and 47?
- A how very unpredictable people are
 - B the speed at which so many rides can go
 - C the possible risks involved in going on a ride
 - D how difficult it is to get a ride exactly right
- 35 What does 'that' refer to in line 53?
- A a superlative ride
 - B a strong narrative
 - C a space adventure
 - D a high-paced chase
- 36 What does Walker suggest about new technology in the rollercoaster industry?
- A Designers are reluctant to use it.
 - B It has proved problematic in the past.
 - C It has a limited role to play.
 - D Passengers rarely notice its impact.

Part 6

You are going to read a magazine article about communication between trees. Six sentences have been removed from the article. Choose from the sentences **A–G** the one which fits each gap (37–42). There is one extra sentence which you do not need to use.

Mark your answers on the separate answer sheet.

How trees communicate

Can trees communicate with each other? Surprisingly, the answer seems to be that they can. Forest ecologist Dr Suzanne Simard, from the University of British Columbia in Canada, has been studying tiny living organisms, or fungi, which form underground communication networks between trees in North American forests. Big old trees, nicknamed 'mother trees', are central to this network, playing a key role in supporting smaller trees in the forest – in particular, their own offspring.

Simard explains that if you're a mother, you put your children first and tend to give them special treatment. **37** In situations where they would normally compete with other trees, they adjust their behaviour to make room for their own family members. They communicate their presence through their fungal networks, so when a very young tree tries to establish itself on the forest floor, it can just link into the mother tree's root systems and so join the fungal network, taking advantage of its considerable resources.

What is more, these networks don't just operate between related trees. They may also form between different species in the same community. For example, Simard also traced the amounts of carbon, nitrogen and water moving between a Douglas fir and a paper birch tree, both native to the forests of British Columbia. In one experiment a tree was artificially prevented from getting the light it needed to grow healthily. **38** The nutrients it needed flowed into the tree from others, through the networks between them.

In another study, Simard showed that within a 30 by 30 metre wooded area, an estimated 250 to 300 different trees were connected by fungal networks. This is of huge benefit to the trees and these networks allow a wider variety of tree types to survive in one area. **39** This diversity creates a basis for a forest that's resilient to disease, climate change and pests such as insects.

Other research has suggested that trees use fungal networks to warn their neighbours about impending attacks from pests. According to Simard, when trees are attacked, they increase their own protection against the invaders by producing a substance which helps them to defend themselves. **40** When these messages are detected, the other trees upgrade their protection systems by producing chemicals of their own.

41 Western Australia, for example, is dominated by healthy trees that don't rely on them, possibly due to the fact that the soil there is richer in nutrients. However, Australian Eucalyptus forests do have networks, although no research has yet been done into what their function might be.

Simard believes her findings have implications for forestry practices which involve the cutting down of old trees. 'We need to leave these trees standing so that they are able to send their messages into the soil to surrounding plants.' Forests are frequently damaged by fire, she says. **42** And it may be that protecting old trees will not only contribute to the restoration of these wooded areas, but may also prevent non-native species from invading them.

- | | |
|---|--|
| <p>A Each species has its own strengths and weaknesses.</p> <p>B These can travel between trees in as little as six hours.</p> <p>C As they do this, chemical signals pass through their networks to nearby trees.</p> <p>D In response, the surrounding trees began to share resources rather than compete for them.</p> | <p>E Whether fungal networks are used may depend on the local ecosystem.</p> <p>F Conserving their networks could help them recover after such an event.</p> <p>G Research suggests that trees do the same thing.</p> |
|---|--|

Part 7

You are going to read a magazine article in which four different people talk about their favourite science fiction books. For questions **43–52**, choose from the people (**A–D**). The people may be chosen more than once.

Mark your answers on the separate answer sheet.

Which person

immediately felt familiar with the subject matter of the book?

43

says that the book has influenced how they judge other science fiction novels?

44

mentions that their interest in sci-fi was maintained by this book?

45

appreciated the fact that the writer gives readers the opportunity to use their imagination?

46

found elements in the book of a type of story they disliked?

47

initially struggled to understand what was happening in the novel?

48

doubts whether many writers would be capable of producing something similar?

49

enjoyed the opportunity to see things from a completely different point of view?

50

was given the book because of their love of a particular location?

51

finds the characters in the book are familiar, despite their origins?

52

Favourite science fiction books

A Tom

I have to admit it took me a while to finish this novel. The story involves a group of friends with special powers who are now being called on to help save the world. Every time I stumbled across someone that felt like a superhero from comics, I'd put it down again in disgust, as their plots had always felt so predictable to me. When I finally got down to giving the book my full attention, I realised what I'd been missing. What the author does is to use the story to crack open a much deeper issue – moral, philosophical, whatever. And every detail counts, as he really stretches the boundaries of storytelling in ways most authors wouldn't even attempt, let alone be able to pull off. Some readers will disagree, I know, but I now compare any sci-fi book I read with this one – and most of them fall short.

B James

In my opinion, you can't write science fiction well if you haven't read any – but then neither can you write it if you haven't read anything else. Many authors just use jargon which makes their work meaningful only to a limited group of fans. When I first started reading this novel by an author who's better known for literary fiction, I found the plot rather confusing, but soon discovered that the fantasy world she'd created was brought dramatically alive by her skill. I was transported to the past and the future by her unusual imagery, which left out just enough detail to allow me to fill in the gaps and form my own idea of her world. In this story, the writer gets inside the mind of a dog – a non-human brain, and an alien mentality. We're invited to picture the dog's timeless world, and experience everyday life through eyes other than our own. That to me is the essence of true sci-fi.

C Anna

One of my favourite haunts has always been the vast heated greenhouse in the botanical garden in my city. And the more spiked and monster-like the plants that are growing there, the more fascinating I find them. So when I mentioned this to my mum, she spotted an opportunity to interest me in literature, and presented me with *Plant Monsters*. I read it in one sitting, excited by an instant sense of recognition. After all, I knew these plants already. What appealed, I think, was the writer's love of addressing the great 'What if...?' questions: what if monster plants such as these broke loose and started to take over the planet? Enter the hero Jamie King, tasked with saving the world. Yet it's the plants that root themselves most firmly in the reader's memory. The writer describes them in great detail botanically, but in my mind's eye they were the ones growing in a greenhouse – right in the heart of my city.

D Sarah

It wasn't easy to pick just one book as my favourite by this writer. She's written so many, all of which I've read, and all of them are weird but somehow true. Fantasy and sci-fi get mixed up with domestic family tales so that awkward teenagers are having to cope with mythological creatures and superhuman powers. I loved sci-fi even before I read these books, but might have outgrown it had it not been for *Universe* and its characters. The book's about other worlds, which I loved, but the people in it are very much of this one. They're eccentric, lonely, funny, sometimes selfish, but always characters I can identify with. I find it really interesting to discover how they make their way through the situations they find themselves in. And her interesting insights into why children can have problems with other family members during their teenage years have been a very helpful guide to me.

WRITING (1 hour 20 minutes)**Part 1**

You **must** answer this question. Write your answer in **140–190** words in an appropriate style on the separate answer sheet.

- 1** In your English class you have been talking about school life. Now your English teacher has asked you to write an essay.

Write your essay using **all** the notes and giving reasons for your point of view.

**Do you think that students should help to make decisions
about what happens at school?**

Notes

Write about:

- 1.** the subjects children study
- 2.** school rules
- 3.** (your own idea)

Part 2

Write an answer to **one** of the questions **2–4** in this part. Write your answer in **140–190** words in an appropriate style on the separate answer sheet. Put the question number in the box at the top of the answer sheet.

- 2 You see this notice in an English-language magazine.

Articles wanted

Someone famous

If you could meet a famous person, who would you choose? In your article explain why you would like to meet this person. What kinds of things would you like to talk about?

The best articles will be published in our magazine.

Write your **article**.

- 3 You see this advert on a website about sports.

Reviews wanted

Sports shop

We're looking for reviews of shops which sell sportswear and sports equipment. Write a review of a sports shop which you use.

In your review you should:

- describe the shop and what it sells
- explain what you especially like about it
- say why you'd recommend the shop to other young people.

Write your **review**.

- 4 You receive this email from your English friend, Mel.

Hi

There's a problem which I definitely need some help with. I've got a friend, Chris, who's always borrowing things from me (and other people), but who doesn't return them.

Thanks for your help.

Mel

Write your **email**.

LISTENING (approximately 40 minutes)

Part 1

You will hear people talking in eight different situations.
For questions 1–8, choose the best answer (A, B or C).



Listening test audio

- 1 You hear a girl telling a friend about a family trip she went on to a climbing centre.
What does she feel about the trip now?
A She regrets not taking part in more activities.
B She wishes it hadn't become so competitive.
C She realises they should have researched it better.

- 2 You hear a teacher talking to her class about a visit to a science exhibition.
What does she recommend they do during the visit?
A refer to material they'll be taking with them
B prepare to do homework based on their observations
C select demonstrations related to their course

- 3 You hear two students discussing a film they saw on TV.
What do the students agree about?
A The actors suited the roles they played.
B The plot had some unexpected developments.
C The director made some unusual choices.

- 4 You hear a woman talking about her work as a fashion designer.
What is she doing?
A describing how her attitude to clothes changed when she was younger
B criticising people whose taste in clothes is different from hers
C explaining how her ideas about clothes developed

- 5 You hear a student talking about a project he has done on bees.

What is unusual about the bees he is describing?

- A The way they find food.
- B The conditions in which they survive.
- C The fact they build their nests underground.

- 6 You hear a girl talking about giving up social media for two weeks.

What does she say about her experience?

- A It had some rather unexpected results.
- B It turned out to be impossible for her to do.
- C It was hard to deal with other people's reactions.

- 7 You hear a teacher telling his students about some research into learning and memory.

What was the result of the research?

- A Music can negatively affect the ability to remember words and images.
- B Associating words with images can aid memory.
- C Images aren't as easy to recall as words.

- 8 You hear a girl talking about the choir she sings in.

What did the choir appreciate about a recent event?

- A singing inside a historic building
- B getting singing lessons from an expert
- C performing with professional singers

Part 2

You will hear a girl called Kelly talking about an activity called potholing, which involves exploring underground caves. For questions 9–18, complete the sentences with a word or short phrase.



Listening test audio

Potholing

Kelly's uncle started exploring caves because he is interested in

(9)

Kelly's first experience of potholing was to a local cave called

(10)

Kelly was very pleased to see (11) inside the first cave she explored.

Kelly had a problem with her (12) the first time she went into a cave.

In her first cave, Kelly noticed some rocks that reminded her of a

(13)

On her first expedition, Kelly complained that her

(14) was painful.

Kelly says that professional people who explore caves particularly worry about

(15)

Kelly says that a (16) is the most important piece of equipment to take underground.

On Kelly's second trip, her biggest challenge was managing to get through a

(17)

Kelly's most memorable experience was seeing some

(18) lighting up a cave she was exploring.



Part 3

You will hear five short extracts in which teenagers are talking about a journey they recently went on. For questions **19–23**, choose from the list (**A–H**) what each speaker says about the experience. Use the letters only once. There are three extra letters which you do not need to use.



Listening test audio

A It was more comfortable than I thought it would be.

B Meeting someone took my mind off my problems.

C A careless mistake almost meant that the trip didn't go ahead.

Speaker 1

	19
--	-----------

Speaker 2

	20
--	-----------

D I was glad I ignored some advice I was given.

Speaker 3

	21
--	-----------

E There was an unexpected long-term consequence.

Speaker 4

	22
--	-----------

F I had the opportunity to use a new skill.

Speaker 5

	23
--	-----------

G It was satisfying to help a travelling companion.

H I regretted leaving something at home.

Part 4

You will hear an interview with a school student from Scotland, called Jake Dawson, who is talking about cycling in the snow in a town in Finland. For questions **24–30**, choose the best answer (**A**, **B** or **C**).



Listening test audio

- 24** What similarity did Jake notice between his hometown and the town in Finland?
- A** the attractiveness of the architecture
 - B** the quality of the light in winter
 - C** the liveliness of the streets
- 25** The weather in Finland made Jake realise that in Scotland
- A** he hadn't gone out in winter as much as he should have done.
 - B** he had spent too much time inside a car in winter.
 - C** he hadn't appreciated how beautiful winter could be.
- 26** Jake says people in Scotland don't cycle much in the snow because
- A** they think it's too cold.
 - B** they don't have the right equipment.
 - C** the conditions on the roads are too dangerous.
- 27** What did Jake like about cycling in the snow in the Finnish town?
- A** Underpasses enabled cyclists to avoid busy junctions.
 - B** Motorists showed respect to cyclists.
 - C** Cycle paths were kept clear of snow.
- 28** What does Jake say about his experience of cycling across a frozen river?
- A** He was keen to take advantage of a unique opportunity.
 - B** He lost his nerve before reaching the other side.
 - C** He felt relieved to be doing it with his cousin.

29 What happened to Jake on one occasion while cycling in the snow?

- A He missed a road sign and lost his way.
- B He made a mistake and hit another cyclist.
- C He became overconfident and fell off his bike.

30 Jake decided that when he got back to Scotland, he would

- A buy himself a better quality bike.
- B use the cycling techniques he'd learned.
- C persuade his friends to take up cycling.