

**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 far B alike C even D again

0	A	B	C	D
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Clever crows**

Did you know that crows are really intelligent birds, maybe (0) ..... as intelligent as young children? Scientists have (1) ..... at this conclusion following a series of experiments (2) ..... in the UK and New Zealand. In one, a crow worked out how to use tools to (3) ..... an eight-stage puzzle and find food that had been placed out of (4) ..... . The crow had never seen the complex puzzle before but managed to solve it in a (5) ..... short time, which is something many young children would (6) ..... to do. In another experiment, six crows had to carry (7) ..... various tasks. In one task, the birds had to learn that if they dropped heavy objects into tubes filled with water, the water level would rise, (8) ..... them to catch food rewards floating on the surface. The crows soon understood that the most effective way of doing this was to choose tubes with high water levels and to select objects that would sink.

- |   |              |              |             |               |
|---|--------------|--------------|-------------|---------------|
| 1 | A approached | B come       | C got       | D arrived     |
| 2 | A adopted    | B conducted  | C operated  | D established |
| 3 | A conclude   | B decide     | C complete  | D secure      |
| 4 | A reach      | B access     | C way       | D limit       |
| 5 | A commonly   | B relatively | C generally | D routinely   |
| 6 | A compete    | B fight      | C struggle  | D challenge   |
| 7 | A on         | B through    | C off       | D out         |
| 8 | A enabling   | B letting    | C ensuring  | D confirming  |

**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 O

**Young snowboarder**

Meet Jack Preston, the latest – and youngest – star on the snowboarding scene. He’s won competitions, regularly competes against adults and hopes (0) ..... compete in the next Winter Olympics, but he’s only 12 years old. According to his trainer, there are professional snowboarders who may never achieve (9) ..... he has, and it is no exaggeration to say he’s the best young snowboarder in the country. Jack’s inspired by his parents, keen snowboarders themselves, (10) ..... first introduced him to snowboarding (11) ..... a very young age. Jack took to the sport naturally and was soon racing down the slopes. (12) ..... then, his snowboarding has gone from strength to strength and he now (13) ..... much of his free time practising and travelling around the world to (14) ..... part in competitions. His parents make sure this doesn’t interfere (15) ..... his school life and Jack says he’s grateful for the opportunity to (16) ..... so many great experiences. Keep an eye out for Jack Preston at the next Winter Olympics!

**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 N A T U R A L

**Oregon’s Lost Lake**

In Oregon in the US there’s a (0) ..... wonder called Lost Lake. During winter, it looks like any other large lake. However, in late spring the water (17) ..... , transforming the ‘lake’ into a beautiful field of grass. This may seem (18) ..... , but in fact there’s a logical (19) ..... : the lake lies on an ancient volcano, and there is a continuous flow of water through a tunnel in the lake bed created by lava, the hot, liquid rock that came out of the volcano when it was (20) .....

The lake fills up (21) ..... during the rainy season in autumn. Because the lava tunnel measures less than two metres in diameter, the water is (22) ..... to escape quickly, so there’s more water coming into the lake than leaving it. That’s why the lake fills up, reaching a maximum (23) ..... of fifty metres. It remains full as snow from the (24) ..... mountains melts. But once the snow has disappeared, the gradual loss of water causes the lake to vanish.

**NATURE**

**APPEAR**

**MYSTERY**

**EXPLAIN**

**ACT**

**STEADY**

**ABLE**

**DEEP**

**SURROUND**

**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:**

<b>0</b>	<i>TAKES PLACE AT THE</i>
----------	---------------------------

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

**25** Don't ask Jim to join the football team – he really doesn't want to.

**USE**

It's ..... Jim to join the football team – he really doesn't want to.

**26** It's a pity I forgot to bring my coat with me, because it's absolutely freezing!

**WISH**

I ..... to bring my coat with me, because it's absolutely freezing!

**27** 'You really shouldn't have upset your sister!' Dad said to me.

**OFF**

Dad told ..... upsetting my sister.

**28** Unfortunately, I don't know much about the history of the castles in the area.

**UNFAMILIAR**

Unfortunately, ..... the history of the castles in this area.

**29** They didn't expect many people would come to the beach party because of the weather.

**EXPECTED**

Few people ..... up at the beach party because of the weather.

**30** It's a pity Sarah didn't tell us which bus to take to her house.

**OUGHT**

Sarah ..... us which bus to take to her house.



## Part 5

You are going to read an extract from an interview with a palaeontologist, a scientist who studies dinosaurs and other creatures that lived millions of years ago. 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.

## Walking with Dinosaurs

Chloe Morgan readily admits science, let alone Palaeontology, hadn't held too much appeal for her, at least not until she was fifteen. Even then, it happened more by accident than design. 'My younger brother was going through the dinosaur phase that's so common among children, and which I hadn't experienced. In fact, I tended to dismiss it. I reluctantly lent him a hand with a science project, and when I came across an article about some of the recent discoveries in the field, it just blew my mind. I knew immediately that this was something I wanted to commit myself to.'

I am curious to know what encouragement she got because Palaeontology was by no means a common career choice for young people at that time. 'I remember meeting my first professional palaeontologist,' she laughs. 'This guy, Matt Cornelius, was famous already, despite being quite young. At first I was a nervous wreck, even though he had a reputation for being approachable and easy-going. I was still worried he'd think I was just an annoying kid pestering him with my questions. But I felt more at ease when he showed so much patience and willingness to listen.'

line 37

I cannot resist bringing up the question of the portrayal of palaeontologists in movies and TV shows. Chloe frowns for a moment. 'I have to admit that films such as *Jurassic Park* featuring dinosaurs created by special effects technology have led to a huge surge in public interest in these creatures, though not necessarily in Palaeontology more generally. However much I welcome this, I think the relatively few examples of palaeontologists depicted in the cinema are misleading. What irritates me is that we're either stereotyped as eccentric geniuses or rather geeky losers, figures of fun who don't know how to relate to people. And films fail to represent accurately the everyday reality of our working lives.' I ask her to explain.

'My job is remarkably varied. I spend lots of time digging up dinosaur bones, but I also have to put in long hours in laboratories, analysing fossils, and writing for scientific publications.'

While it's not necessarily something Chloe is required to do on a daily basis, there's also the question of communicating scientific findings to the public, if time allows. The role of explaining and clarifying is one she takes seriously. 'There are a lot of misunderstandings and misconceptions about science, and though I know colleagues who are reluctant to take on such a challenge and don't want to be distracted from doing research, I see dealing with these issues as something I ought to do. I like to reach out to young people in particular, because it's important to let them know about all aspects of science. Talking about dinosaurs is one way to get children fired up about the natural world, and widen their horizons. They can start to appreciate other branches of science and to grasp more complex scientific ideas.'

line 66

The recent TV documentary *Walking with Dinosaurs* was a great opportunity for Chloe to influence the way dinosaurs are portrayed on screen, as she was invited to offer her advice. 'I had a fairly easy time of it because there was very little that I needed to comment on; it was mostly checking that the dinosaurs shown did exist together in the same time period. We succeeded in attracting audiences of all ages because we've learnt such a tremendous amount about dinosaurs recently.' This means that the dinosaurs in the documentary are easily the most life-like that have ever been portrayed.

Why does Chloe feel dinosaurs continue to fascinate us and remain the focus of ongoing research? 'I suspect that they speak to the innate explorer in all of us. Our imaginations are drawn to the unfamiliar and the prospect of discovery. And at a time when our world seems to be shrinking, prehistoric creatures remind us that there is still more out there to be discovered. And Palaeontology is a great form of time travel.'

- 31 Chloe says she became seriously interested in Palaeontology because
- A she was astonished by something she read by chance.
  - B she had always been enthusiastic about related subjects.
  - C she was keen to share her brother's passion for the subject.
  - D she was aware that others seemed to know a great deal about it.
- 32 What does 'this' refer to in line 37?
- A the number of films about dinosaurs
  - B the new desire for information about dinosaurs
  - C the greater public understanding of Palaeontology
  - D the special effects technology used by film makers
- 33 What does Chloe feel about the way palaeontologists are shown in films and on TV?
- A disappointed that a false impression is given of them
  - B pleased because there is a range of different personalities
  - C resigned to putting up with the unfair criticism they receive
  - D amused by some of the situations they find themselves in
- 34 What does Chloe say about communicating with the public about Palaeontology?
- A She is delighted she can devote so much time to it.
  - B She worries that it may prevent her from focusing on research.
  - C She is critical of some scientists' lack of ability to do it well.
  - D She feels it is her duty to make science more comprehensible.
- 35 What does the expression 'widen their horizons' mean in line 66?
- A make them more tolerant of different things
  - B change their view of what's important in life
  - C make them aware of new ideas
  - D encourage them to travel more
- 36 Chloe thinks that dinosaurs continue to appeal to us because
- A they make us appreciate that the world remains a mysterious place.
  - B they are creatures that it is hard to believe ever existed.
  - C they require interesting research in order for us to understand them.
  - D they provide an escape from the boredom of our everyday lives.



## Part 6

You are going to read an article about the discovery of a new basic taste. 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**.

## A new taste

*Scientists believe they have found a new basic taste – beyond sour, sweet, salty, bitter and umami.*

For hundreds of years, scientists have known about four basic, or 'primary' tastes: sour, sweet, salty and bitter. More recently, a Japanese chemist discovered a fifth primary taste, a savoury taste called umami. And now, researchers believe they have even found a sixth primary taste, and this may well affect the way in which we think about our food.

We experience the five distinct tastes because they react with our taste buds, the sensory organs in our mouths that allow us to distinguish between different tastes. There are thousands of these taste buds on the human tongue and all around the inside of our mouths. So, how we experience a mouthful of food really does depend on how the chemicals in the food affect our taste buds. Scientists now believe that fat may affect our taste buds in a similar way to other tastes, such as sour and sweet. We've known for some time that taste buds recognise fat. Scientists have, therefore, speculated that fat may produce a taste of its own which is distinguishable from the five other primary tastes.

The researchers conducted two experiments.  In the first, participants were given liquids that had one of six different tastes: sweet, salty, sour, bitter, umami and fatty. They were then asked to sort them into groups, as they believed were necessary. The participants had little trouble identifying sweet, salty and sour as unique tastes, but, interestingly, they put the remaining three all together into a single, separate group.

The researchers then took things a stage further.  In the next experiment, they only gave participants solutions containing the three remaining tastes, and this time the participants had no difficulty separating them into three distinct

groups. 'It was really very telling,' said Mattes, one of the scientists. 'We already knew that people have a taste receptor for fatty acids; now we know that it's a distinguishable taste.'

Fat, as everyone experiences it, is made up of three fatty acids. The combination of the three gives fat the creaminess we associate with it. The kind of fat Mattes is talking about is actually only in one of those three fatty acids. It's the one that gives us the taste that is unique to fat. A primary taste can only be called that if it shares no characteristics with the other primary tastes. The fact that people can so easily recognise fat as a different kind of taste is evidence that it is another primary taste. When you eat a food that contains fat, you don't immediately perceive the taste produced by this particular fatty acid.

As a taste on its own, fat is pretty unappealing. 'It's very harsh,' said Mattes. 'It doesn't taste good.' But then, neither do some of the other primary tastes, such as bitter or sour. However, when added to other ingredients, it contributes greatly to the appeal of food, as is the case when it is used in combination with cocoa beans to make chocolate, for example. Many things are unpleasant in isolation, in fact.

The impact of Mattes' research could extend well beyond the reach of his lab, to what appears on our plates.  'Understanding this could have huge implications for the food industry,' he said. If food manufacturers begin to concentrate on the flavour of fat as well as the creamy texture of it in our mouths, our food might actually start to taste better.'

- |   |   |
|---|---|
| <b>A</b> Fat is a perfect example of this.                                      | <b>E</b> But it's there, and it's distinct.                                     |
| <b>B</b> There isn't a firm agreement about what characteristics are necessary. | <b>F</b> And, more specifically, it may affect how it tastes.                   |
| <b>C</b> That's when a clear division surfaced.                                 | <b>G</b> This was to find out whether fat could be another of the basic tastes. |
| <b>D</b> Now there's evidence that it does.                                     |   |



Part 7

You are going to read an article in which four students talk about subjects they enjoyed studying at school. 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 girl

- was shown the appeal of a subject she hadn't previously considered? 43
- says that she has learnt to solve complicated problems effectively? 44
- appreciates that a subject is of interest to diverse groups of people? 45
- sometimes received negative comments about her work? 46
- hid her true feelings about what her future might hold? 47
- felt that she had little chance of achieving an ambition? 48
- was frustrated at a lack of opportunity to be creative? 49
- enjoyed observing practical demonstrations in the subject? 50
- can understand why she was discouraged from studying something? 51
- found that potentially dull material was brought to life? 52

# Favourite subjects

**A Tamsin**

My Latin and Greek teacher taught me an invaluable lesson – that if you can excel at only one thing, then exploit that fully. I was a bit bored at school, and although I pretended otherwise, I was actually rather concerned about what lay ahead when I eventually left. But for some reason I'd always had an interest in the wonders of classical civilisation. The teacher loved her subject, and though she didn't hold back on the criticism when I messed up, she praised me to the skies when I met her expectations. She made what could simply have been dusty, dry books relevant to the modern world. I became fascinated not only with understanding the way society works, but also what makes people tick and how they deal with problems in life – and that's exactly what the ancient Greek tragedies are all about. And now I'm studying all this at university, and I feel really mentally stimulated.

**B Bella**

I liked art at school and, at one point, I even thought about studying it at university. But my parents put an end to that idea, as they said the subject wasn't appropriate for someone with my academic ability. Looking back I can see their point, but I felt I really needed some sort of outlet for my artistic ideas. Then, I discovered poetry, thanks to an outstanding teacher, who opened my eyes to the power of words, and encouraged me to go on to study English literature at university, which I'm now doing. And recently, I've taken to visiting museums, at quiet times, when the lack of bustling crowds means that you can stare at a painting or sculpture for as long as you want. Those visits are really important to me, and on my course I find I'm benefitting from the extra dimension that art brings to my reasoning.

**C Karina**

When I was at school, I always wanted to become a writer of some kind, although it somehow just felt hopelessly unrealistic. But I read an enormous amount, and loved playing around with words, so English literature was at the top of my list of favourite subjects. And studying it has given me more than I could ever have imagined. I've come to understand that modern works can be read for their underlying meaning rather than just the simple beauty of their prose. Now I've grasped that, the subject has become transformed for me into something with even greater significance. I realise that literature connects with people's lives and speaks to people no matter what their background might be. And, for me, the thrill of uncovering the hidden messages contained in a work of literature hasn't diminished in any way.

**D Holly**

At school, I always found the laws of physics fascinating to study, and memorable to see in action in classroom experiments. Luckily I was really good at maths, so the calculations we had to do weren't as taxing to me as they were to other students. And I got really carried away with experimenting – I made a device to measure magnetic fields with lasers. Physics is the study of the basic rules governing the universe, and the impact they have on our everyday lives. Studying it has helped me to develop a more analytical approach to any issue I have to deal with. It's given me the confidence to break down tricky tasks into manageable parts. And that has been really beneficial to me in my physics course at university.



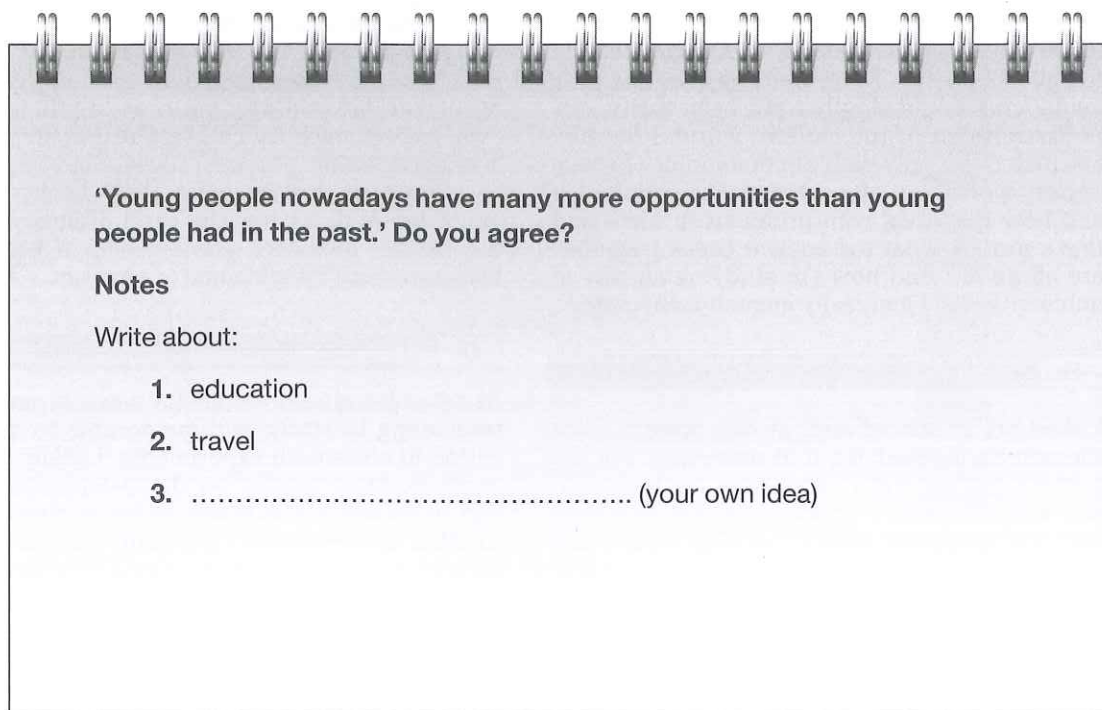
**WRITING** (1 hour 20 minutes)

**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 the opportunities teenagers have. Now your English teacher has asked you to write an essay for homework.

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



**'Young people nowadays have many more opportunities than young people had in the past.' Do you agree?**

**Notes**

Write about:

1. education
2. travel
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 have seen this announcement in an English-language magazine for teenagers:

*Stories wanted*

We are looking for stories for our new English-language magazine for teenagers. Your story must **begin** with this sentence:

*This was our first camping trip and we were really excited.*

Your story must include:

- a storm
- a problem

Write your **story**.

- 3 You see this notice in an international magazine for teenagers:

*Articles wanted*

**School Rules!**

Which rules at your school do you agree with and which ones do you think are unfair?

Why is it important for students to have rules at school?

The best articles will be published next month.

Write your **article**.

- 4 You recently saw this notice on a shopping website:

*Reviews wanted*

**Games and Toy Shops**

Do you know a good shop which sells games or toys? If so, write us a review describing the shop and what it sells. Explain why the shop is a particularly good place to buy games or toys.

The best reviews will be published next month.

Write your **review**.