



**Cambridge Assessment International Education**  
Cambridge International General Certificate of Secondary Education

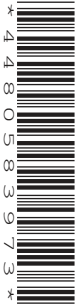
CANDIDATE  
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**ENGLISH AS A SECOND LANGUAGE**

**0510/22**

Paper 2 Reading and Writing (Extended)

**February/March 2019**

**2 hours**

Candidates answer on the Question Paper.

No Additional Materials are required.

**READ THESE INSTRUCTIONS FIRST**

Write your centre number, candidate number and name in the spaces at the top of this page.

Write in dark blue or black pen.

Do not use staples, paper clips, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

Answer **all** questions.

Dictionaries are **not** allowed.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **13** printed pages and **3** blank pages.

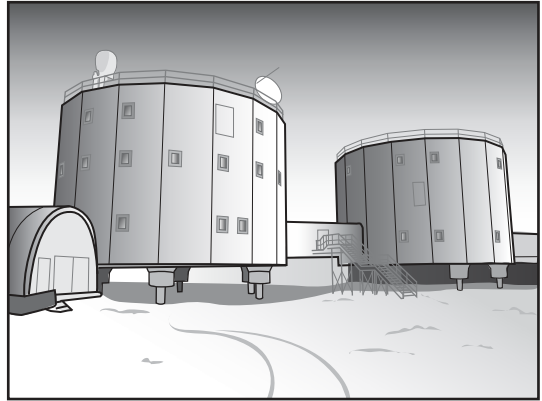
## Exercise 1

Read the article about Dr Sarah Hilton, a researcher working in Antarctica, and then answer the following questions.

### Antarctic space research

Nobody knows what it's like to live on Mars, but the scientist Dr Sarah Hilton does have some idea. She's spending a year at the Concordia research base in Antarctica, where the special conditions found there are helping her learn about what life on Mars might be like for future astronauts.

The region has an average temperature of minus 50°C. The sun vanishes completely for four months in winter, with temperatures dropping to minus 80°C. The base is so far from civilisation that it's the only place on Earth where you get the same feeling of remoteness that astronauts experience. In fact, it takes longer to get to Antarctica than to the International Space Station 400 kilometres above us!



Sarah is part of a team of 13 scientists who are living and working at the base. During summer, Concordia is home to up to 60 visiting scientists. But in winter, a crew of only 10 is left to run the base, so everyone has several roles: the chef is also a fireman; the plumber is trained as a medical assistant.

When asked why she applied, Sarah says: 'I've always been fascinated by Antarctica. I'd already experienced working in constant daylight at the North Pole, which had a negative effect on my body's ability to tell day from night. But sleeping in 24-hour darkness in Antarctica is totally different. Also, you immediately notice the flat landscape and strong winds here.' Sarah's main job is monitoring the effects of these conditions on health, as previous studies found that people working in Antarctica share many physical challenges with those working in space. Results on Earth can give clues about possible problems astronauts might face.

Sarah has discovered that although the freezing cold and lack of sunlight make conditions very uncomfortable, she was surprised to find that living with strangers is harder than anything else. Her team is of mixed experience and cultural background, including a French scientist, an Italian physicist and some Spanish astronomers. Although English is used when discussing research, there is a multicultural atmosphere, with Spanish being the most common language used in social situations.

Sarah started off trying to make friends with everyone because like being in space, communicating with people back home can be difficult. She soon realised, however, that having just a few close friends has made her feel more positive, and has also enabled her to focus more on work. She produces research which predicts how people might perform on future missions to the Moon, Mars and beyond. One study that Sarah hopes will be useful is to measure people's eyesight during their visit, as, just like the conditions in space, everyone at the base has only artificial light for many months.

Considering this difficult environment, everyday life at the base is well-managed, with the team kept occupied. While most prefer reading books, or using the games consoles provided, Sarah enjoys taking photos to record her trip when she isn't working. The food at the base is good, even if most of it is preserved – for example, vegetables and meat come in tins. Sarah admits to missing things like salad, although she made sure she brought plenty of chocolate, her favourite treat, with her on the trip. Team members' personal items are important, and Sarah regrets not having her favourite shampoo, which she wasn't allowed to bring with her. This is because the base in Antarctica reuses its water through the same special recycling system that is used on the International Space Station, and it can't cope with the chemicals found in many washing products.

And Sarah's future? She says, 'I'd love to go to Mars if I could, but I don't think it's very likely!'

- 1 What is the coldest the weather can get where Sarah is working?  
..... [1]
- 2 How many members of staff remain to manage the base after the summer?  
..... [1]
- 3 Which job does the cook at the base also do?  
..... [1]
- 4 What environmental factor meant that Sarah had difficulty sleeping in a previous job?  
..... [1]
- 5 What is the biggest challenge that Sarah has to deal with at the base?  
..... [1]
- 6 Which language do the scientists speak when they are not working?  
..... [1]
- 7 What has helped to make Sarah's life at the base easier?  
..... [1]
- 8 What does Sarah like doing while at the base?  
..... [1]
- 9 What particular food does Sarah wish she could eat while at the base?  
..... [1]
- 10 In what ways is life similar for people in Antarctica and astronauts in space? Give **four** details.  
.....  
.....  
.....  
..... [4]

[Total: 13]

## Exercise 2

Read the article about four people (A–D) who are reviewing computer games that they've played. Then answer Question 11 (a)–(j).

### Computer game reviews

#### A Tom

In *Rune Island*, a brother and sister start out on a remote island. The aim of the game is to follow clues and solve puzzles to reach the highest point of the island, where a mysterious scientist awaits. You can play either as the boy or girl throughout, and as each character has special abilities, it's worth changing between the two as you play. During the game, you climb things, push objects around and even use sunlight to activate switches that open doors. To start with, it's nothing more than a gentle game with some nice music, but as time goes on, you get more involved in the action. I really love puzzle games, and I assumed I'd feel the same about *Rune Island*. I like it, but it rarely offers anything tricky, although there were a few tasks that left me feeling satisfied when I'd solved them. You can only climb certain rocks, marked by their colour, and while this shows you where to go, it means you won't bother to explore the other areas much, which is a shame.

#### B Sasha

*Journey* is a treasure-hunt adventure set in a breath-taking world. The setting looks as if it comes straight out of a movie, with its lush jungle environment and dramatic music, and you almost feel like you're watching actors on a screen running and jumping, rather than computer images. The game contains a range of puzzles, and you need to use different approaches to solve them. It can be difficult to use some of the objects that you find, which unfortunately can interrupt the enjoyment of being involved in the game. The only other issues are that although it's exciting, it's not very long, and there aren't really many options to go off the path and explore. Once you finish, there's little value in repeating the game in the hope of experiencing something new. Still, it's gorgeous, challenging, and a great example of what virtual reality is capable of.

#### C Lionel

In *Farspace*, you choose which character you want to be, and try to escape from a distant planet. One of the fun things about difficult games is advancing through a hard level. Unfortunately, in *Farspace*, you need more than skill, as all too often, success is based on chance. At any point you might meet an enemy that seems impossible to beat – and if you don't win, you have to start again. One tip is to listen to the soundtrack, as the style of the music is often a clue to what might be around the corner. You might get lucky and find some items to help, but then you don't know which character can use them. As you can't change characters mid-game, you have to start again to find out. The characters look great, and although you won't be exploring the surrounding landscape – the game is based in the city – the stunning video-clips remind you that you're in another world.

#### D Lizzie

*Snowscape* is an extreme winter-sports game in the mountains of Switzerland. Open 'map view' and you fly around a realistic 3D model of the mountains and find somewhere to land. To start snowboarding, skiing or paragliding, just bring up a menu, choose the sport, and you're off, straight into the action. There are various events that you can repeat to improve your skill, like races and time trials – so many, in fact, that I spent more time deciding what to do next, rather than enjoying the game. My favourite event is one that marks a distant point, maybe the peak of a mountain, then simply asks you to reach it. Here the freedom of being able to switch sports really works. It's exciting not to be limited to following a particular path, and you soon find out which sport is best for travelling through forests and valleys and over peaks to reach your goal.

11 For each question, write the correct letter A, B, C or D on the line.

**Which reviewer**

- (a) mentions that they enjoy choosing their own routes through the game? ..... [1]
- (b) recommends that players try out the skills that different characters possess? ..... [1]
- (c) says that the characters look like real people? ..... [1]
- (d) explains how the music can help players make progress? ..... [1]
- (e) suggests that there are too many things to choose from in the game? ..... [1]
- (f) says that the game becomes more interesting the longer you play it? ..... [1]
- (g) mentions that changing between the different options in the game is quick? ..... [1]
- (h) says that just being good at the game is not enough to complete it? ..... [1]
- (i) feels that the level of the challenges in the game is often not hard enough? ..... [1]
- (j) states that it is not worth playing the game more than once? ..... [1]

[Total: 10]

**Exercise 3**

Read the article about making energy from the sea, and then complete the notes.

**Wave power: creating energy from the sea**

Wave power is a source of energy that is created from the movement of the waves in the sea as they roll towards the shore then back out again. This regular movement means it is easy to predict how much energy will be produced. Equipment to collect the energy from the waves is already in place along many coastal regions including the United States, Canada, Scotland and Australia.

At a time when we understand that the remaining supplies of fossil fuels such as coal are very low in some places, it is good to know that wave power will never run out. The seas which have been a constant feature of our planet for billions of years are a vital part of our lives. While there is no doubt that we have a need for power, we must protect our planet from destructive human activities. In contrast to the way that fossil fuels are produced, no harmful waste is created in the process of obtaining energy from the waves. There are some problems, however. As parts of the equipment use chemicals to keep them running smoothly, there is always the possibility that these chemicals might spill into the water nearby and cause pollution.

For countries which have coastlines, major coastal cities are often important destinations for large cargo ships and recreational boats. As wave-power equipment is often situated just off the coastline, it can cause disruption to shipping, so governments and private companies that want to invest in wave power must consider the needs of those they may be disturbing. In addition, they have to take into account the fact that the energy produced by the waves can only be used in urban areas close to the sea.

Wave-power generators are large machines that may be unpleasant to look at for people living in coastal regions. They may be found in places that rely on holidaymakers, which could therefore have a damaging effect on the local tourist economy. Being situated close to the land could also be a problem in terms of noise from the machinery. Fortunately, the noise they make is covered by the natural sound of the waves, which is actually louder than the equipment.

Those who choose to invest in wave power do so in the knowledge that, unlike the situation with fossil fuels, wave power causes minimal damage to the Earth. While it can't be denied that to some extent the machinery can disturb the creatures that live on the seabed, for many people, this is preferable to something like coal mining. Here, the extraction process can cause considerable damage to the landscape. Furthermore, the construction and management of wave-power sites can provide opportunities for creating 'green jobs' in the local community. Most people would consider this as a positive step.

Anyone who is interested in using waves to create power must examine both sides of the argument. What is certain is that traditional methods of fuelling the planet need to change, in response to both global climate conditions and the availability of the fuels we have relied on for years.

You are going to give a talk about wave power to your class. Prepare some notes to use as the basis for your talk.

Make short notes under each heading.

<p><b>12</b> Benefits of wave power:</p> <ul style="list-style-type: none"><li>• .....</li><li>• .....</li><li>• .....</li><li>• .....</li><li>• ..... [5]</li></ul> <p><b>13</b> Disadvantages of wave power:</p> <ul style="list-style-type: none"><li>• .....</li><li>• .....</li><li>• .....</li><li>• ..... [4]</li></ul>
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[Total: 9]

### Exercise 4

- 14 Read the article about a type of animal called a sloth, which lives in forests in parts of Central and South America.

**Write a summary about the features of sloths' bodies that enable them to live in trees.**

**Your summary should be about 100 words long (and no more than 120 words long). You should use your own words as far as possible.**

You will receive up to 8 marks for the content of your summary and up to 8 marks for the style and accuracy of your language.

### Sloths

The sloth is an animal that spends most of its time high up in the trees of Central and South America. There are different species of sloths, including the brown-throated sloth and the endangered pygmy sloth.

The word 'sloth' means inclined to laziness, and these relaxed and very slow-moving creatures certainly appear to live up to the name. With the help of their extremely specialised claws which curve toward the wrist creating four large, natural hooks, they can hang upside down from a tree branch for days without effort. This is also possible as they have less muscle mass than you might expect – 30% less than other mammals of equal size. In fact, they eat, sleep, breed and give birth while hanging from tree branches. You would expect that being born high above the ground might cause problems if the babies slip, but they are born with such strong skeletons that a fall from the trees will generally not hurt them. Sloths exist almost entirely on a diet of leaves which they pull from the trees using their long sticky tongues. These leaves are such a poor source of nutrition and energy that eating is central to the creatures' whole lifestyle, and they spend almost every waking moment doing it.



Due to the amount of effort needed to obtain enough nutrients, the sloth's metabolism (the chemical process in the body that breaks down food) is amazingly slow. In fact, it is the slowest in the entire animal kingdom, meaning that a leaf that is consumed might take weeks to pass through the sloth's body.

The time spent eating means a lack of time spent on maintaining clean fur, which in turn allows an organism called algae to grow on the sloths during the rainy season. This gives their fur a greenish colour which is useful as they spend as much as 95% of their lives in the trees, where the colour helps hide them from other animals. The fur has another important benefit: in most mammals, hair grows downwards, towards the feet, but because sloths spend so much time hanging upside down with their legs above their bodies, the outer hairs grow in the opposite direction, away from the feet. This provides protection against the rain, creating a natural path for water to flow off the animal.

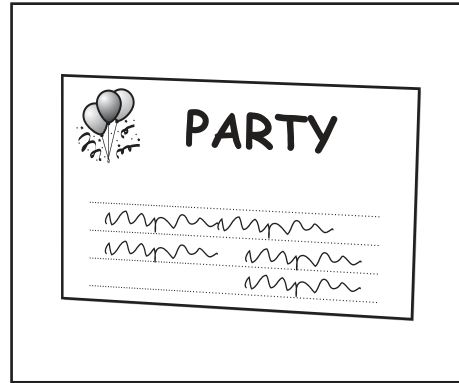
Sloths have also adapted internally for an upside-down life. All their internal organs, including the heart, liver and stomach, are arranged inside in a different pattern from that seen in most mammals. This means that nothing gets crushed or obstructed when the animal is hanging motionless for extended periods of time. Even with the ability to remain still and hidden among the leaves, it is still important to know what's going on around you. Sloths therefore possess an extra bone in their neck which allows them to turn their head nearly 270 degrees. This enables them to look down at the forest floor while hanging from a tree.

Many sloths need to move to sunny spots to warm up when it is cold. In such weather, their temperature drops and they find it harder to move because they are so cold. This can be dangerous for sloth populations because they must move around in the tree to eat in order to survive.





## Exercise 5



15 You are planning a special party, and want some help from your friend.

**Write an email to your friend about the party.**

In your email, you should:

- say what the party is for
- describe the plans you have already made
- explain how your friend can help you.

The pictures above may give you some ideas, and you can also use some ideas of your own.

**Your email should be between 150 and 200 words long.**

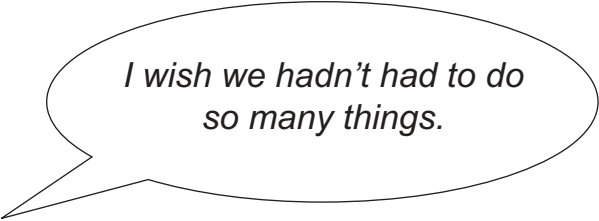
You will receive up to 8 marks for the content of your email, and up to 8 marks for the language used.




**Exercise 6**

- 16** You recently went on a school trip. Your teacher has asked you to write a report about the trip and make suggestions for next year.

Here are two comments from your classmates:



*I wish we hadn't had to do  
so many things.*



*The people we met were really  
helpful.*

**Write a report for your teacher, giving your views.**

The comments above may give you some ideas, and you can also use some ideas of your own.

**Your article should be between 150 and 200 words long.**

You will receive up to 8 marks for the content of your report, and up to 8 marks for the language used.







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