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**ENGLISH AS A SECOND LANGUAGE** **0510/21**

Paper 2 Reading and Writing (Extended) **May/June 2022**

**2 hours**

You must answer on the question paper.

No additional materials are needed.

**INSTRUCTIONS**

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- Dictionaries are **not** allowed.

**INFORMATION**

- The total mark for this paper is 80.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **16** pages. Any blank pages are indicated.

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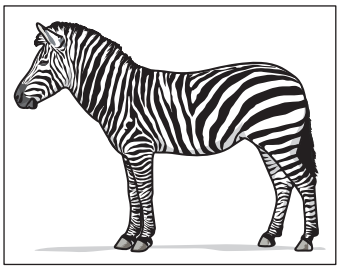
**Exercise 1**

Read the blog article written by a student about her project on zebras, and then answer the following questions.

## Zebras and their stripes



I've always wondered why zebras have stripes, so I decided to do a school project to find out. Before I started it, I knew that zebras are members of the horse family, which consists of seven different kinds of animals including horses and donkeys. And the three species of zebra, which live in Africa, are the only members of the horse family with stripes. Horses and zebras have many things in common, like diet and family living. However, zebras are naturally more aggressive, which means that humans tend to avoid them. And unlike horses, they bark to warn other family members of danger. I already knew these things, but my project was an opportunity to learn more.

The first thing I discovered was that the striped pattern of each zebra is unique, which is amazing if you consider the number of zebras in the world. And they're actually born with brown and white stripes, not black and white, something I hadn't expected to learn. To understand more about the stripes, I decided to read about two scientific experiments.

The first was in 2019, investigating why flies tend not to bite zebras. Zebra hair is short and thin, so in theory flies can easily bite their skin, but don't for some reason. Professor Caro from the University of California, USA, wanted to find out why. Although he had studied zebras extensively in Tanzania, he chose to study a group of zebras in the UK. You might think that he would prefer to study animals in their natural environment, but these zebras were part of a wildlife conservation programme and so were used to humans approaching them. Professor Caro filmed close-up images of how flies behaved around the zebras and whether they landed on the animals or flew past. He then dressed a group of domestic horses in striped jackets and observed the flies' behaviour in the same way, and then repeated this with plain-coloured horses without any jackets.

The results were clear. All three groups – the zebras, the horses in striped jackets, and the plain horses with no jackets – experienced a similar number of flies around them. However, far fewer flies landed on the zebras and on the horses with striped jackets. Instead, the insects approaching these animals just bounced off, whereas the flies around the plain horses managed to land. This proved to Professor Caro that zebras' stripes prevent them from being bitten by flies. Some farmers paint stripes onto cows for the same reason – I've actually seen some in a field near my house. My dad told me that it allows them to feed without interruption. He also told me that painting the cows improves their welfare. I'm not sure how many farmers do this though!

The second experiment I read about was carried out by a former biology technician called Alison Cobb. She'd worked in Africa for many years and had been fascinated by zebras ever since reading stories about African animals as a child. Cobb believed that the function of the stripes was to keep zebras cool. I'd heard this before, but some of her detailed findings, such as the way the black hairs move up and down in the heat, I found remarkable. In her experiment, Cobb measured the temperature of zebras' stripes every 15 minutes. She discovered that the black stripes get much hotter than the white ones – something that had never occurred to me before – and, astonishingly, zebras actually sweat through the ends of their hairs!

After doing my project, I definitely know a lot more about zebras than I did before!

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**1** How many types of zebra are there?

View solution

..... [1]

**2** How is zebra behaviour different from horse behaviour? Give **two** details.

View solution

.....

..... [2]

**3** Where did Professor Caro's experiment take place?

View solution

..... [1]

**4** Why were the zebras in the wildlife conservation programme suitable for Professor Caro's study?

..... [1]

**5** What happened when the flies in Professor Caro's study tried to land on the animals with stripes?

..... [1]

**6** What are the benefits of protecting cows from being bitten by flies? Give **two** details.

View solution

.....

..... [2]

**7** What first inspired Alison Cobb's interest in zebras?

View solution

..... [1]

**8** What facts about zebras was the writer surprised to learn while doing her project? Give **four** details.

.....

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..... [4]

[Total: 13]

View solution

## Exercise 2

Read the article about five unusual museums (**A–E**). Then answer Question **9(a)–(j)**.

# WHO SAYS MUSEUMS ARE BORING?

*Five young people describe an unusual museum they have visited*

**A Dinosaur Ridge, Colorado Natural Area, USA**

My favourite museum is Dinosaur Ridge – one of the best places in the world to see real evidence of dinosaurs. At this 'outdoor museum', you can get close to over 300 dinosaur footprints, left in the sand as dinosaurs walked here 100 million years ago – just like being on a Hollywood movie set! The best way to reach the site is to hike or cycle, but the sun can be hot and the route includes a steep climb, so the guided bus tour might be a good alternative for some. Each year, the museum relies on lots of volunteers who assist with everything from answering visitors' questions to picking up rubbish. I think that would be a fantastic thing to do!

**B Cancun Underwater Museum, Mexico**

As its name suggests, this museum is in an unusual place – it's underwater! I love diving, so I can't think of anything better. The museum was the idea of the local national park director, and consists of over 500 abstract sculptures fixed to the ocean floor. It can be explored by swimming, diving or from a glass-bottom boat. All visitors are taken there by boat from their hotel, so poor weather conditions do occasionally prevent the site from operating. The sculptures were designed by a team of Mexican and British artists and the idea is certainly full of imagination. However, the museum's main goal is actually the conservation of the underwater environment, which it tries to achieve by showing people through art how we affect our oceans.

**C Cup Noodles Museum, Japan**

Instant noodles – or 'cup noodles' – are my favourite fast food. Just add boiling water and you have an immediate snack in a cup! The museum tells the story of Momofuku Ando, a man who spent his life inventing food that everyone could afford. Hearing his amazing story of investigation and discovery, visitors can't help being reminded of what it is possible to achieve by thinking differently. The circumstances leading to the invention of his noodles are explained through a short cartoon video. The highlight for me was the opportunity to have my own souvenir noodles produced at the museum factory. You even choose the flavours and draw the picture to be printed on the cup! This activity is popular though, so it might be better to book in advance.

**D Computer Games Museum, Germany**

This is definitely the museum for computer games fans like me! It contains over 300 interactive devices covering six decades of gaming history, from the 1972 'Magnavox Odyssey' game to more recent PlayStation devices. The museum started in 1997, although it shut soon afterwards, operating online only. It wasn't until 2011 that it opened in its current building, just five minutes by underground train from central Berlin. As well as being a great place for visitors like me, it also has a slightly more serious side. The museum regularly participates in scientific projects, such as studying how computer games influence the way people interact. If they ever wanted people to take part, I'd be the first to volunteer!

**E Derwent Pencil Museum, England**

A pencil museum might sound boring, but the Derwent company produces some of the world's finest art materials. I love drawing, so enjoyed learning about their beautiful coloured pencils, which visitors are given as a souvenir instead of a ticket. The museum is located on the site of their original factory, which started manufacturing in the early 20th century and became famous recently as a setting in the horror-comedy film *Sightseers*. The museum tells the story of pencil-making, from the discovery in the surrounding countryside of graphite, the black substance used to make pencils, up to the present day. The modern-day 'secret agent' pencils, designed to hide tiny maps inside, were really interesting. But for me, the free art classes in which you can benefit from specialist teaching were the biggest attraction.

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

View solution

**Which museum …**

**(a)** allows visitors to design their own product to take home? ..... [1]

View solution **(b)** was once featured in a movie? ..... [1]

View solution **(c)** aims to protect a particular aspect of the natural world? ..... [1]

View solution **(d)** is often involved in research? ..... [1]

View solution **(e)** provides opportunities for visitors to improve their skills? ..... [1]

View solution **(f)** needs people to help out? ..... [1]

View solution **(g)** lacked a permanent physical location in its early years? ..... [1]

View solution **(h)** has to sometimes close due to circumstances beyond its control? ..... [1]

View solution **(i)** has different options for getting there? ..... [1]

**(j)** makes people aware of the importance of creative ideas? ..... [1]

[Total: 10]

View solution

**Exercise 3**

Read the article about two brothers who set up a sportswear company called Castore, and then complete the notes.

## Brothers in business

Tom and Phil Beahon, two brothers from Liverpool who founded the sportswear brand Castore, originally knew nothing at all about making clothes and they didn't know anyone in the fashion industry. They did have a dream, however – to create their very own luxury sportswear company.

In 2013, they both moved to London, found good office jobs and spent their weekdays working at their desks. However, at weekends they interviewed people in top gyms about their sportswear requirements. Tom and Phil both agree that this played a key role in making Castore such a popular brand. Another factor that helped the brand to take off was that, at that time, although there was high-quality sportswear available for women, no-one was making luxury sportswear for men.

In 2016, the brothers' company Castore was born, taking its name from Castor and Pollux, who were famous twin brothers in ancient Greek myths. The business started to grow, helped by significant investment from famous business people. Today, the company has a multi-million-pound income and the brothers have an ambition to expand overseas, but they haven't always known such a high level of success. When they were younger, they both played sport: Tom was a professional football player for a while and Phil played cricket semi-professionally. However, each of them knew they would never get to the top of their sport, so they decided to give up their sports careers. It was a hard decision for both of them, but not one that they regret.

Usually, it's the big sportswear brands that have to ask famous sportspeople to wear their clothes. But in the case of Castore, it's the other way round – a number of well-known sports professionals are keen to promote the brand. Tom and Phil aren't satisfied with supplying individuals, however, and are aiming to supply professional teams with official sports kits. They're also looking to launch new clothes collections for specific sports. Phil emphasises that Castore's success is due to the unique products it develops. One of these is the Fusion jacket. This high-tech item is silver in the daytime to absorb sunlight; it becomes bright green at night to make the wearer visible enough to continue training after dark.

Like many companies, they operate online. When it comes to real shops, they made the business decision early on to sell their clothes only in the best stores. Tom and Phil believe that this decision has really paid off. They've also tried other methods of selling, like opening a series of temporary shops for a few weeks each, to see if these might be popular or not. In fact, they're intending to open more 'pop-up' stores overseas in the coming months. The Head Office is in Liverpool, where they grew up, and the brothers want to increase the number of staff they employ. 'It's important for us to do this,' says Tom.

So far, Castore has been a real success story. Who knows where they'll go in the future?

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You are going to give a talk about the sportswear company Castore to your class at school. Prepare some notes to use as the basis for your talk.

Make short notes under each heading.

**10** Reasons for the success of the brothers' sportswear company:

View solution

- .....
- .....
- .....
- .....
- ..... [5]

**11** The brothers' future plans for the sportswear company:

- .....
- .....
- .....
- ..... [4]

[Total: 9]

View solution

## Exercise 4

**12** Read the article about the Polar Academy, an organisation that takes teenagers on expeditions to the Arctic.

**Write a summary about what the Polar Academy wants the teenagers to gain from the experience AND what teenagers need to do to be chosen for the expedition to the Arctic.**

**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.

# The Polar Academy – Arctic adventure for teens!

Many schools offer students the chance to participate in outdoor activities and trips abroad. But the Polar Academy, an organisation in Scotland, goes even further. Each year, it trains a group of teenagers and then sends them on an expedition in Greenland. For ten days, the teenagers must find their way through the wild Arctic landscape and survive in one of the most extreme environments in the world.

The Polar Academy was the idea of the Scottish explorer Craig Mathieson. Craig had already been visiting schools to talk about his expeditions, but felt that wasn't enough. He wanted to do something that would really give teenagers the motivation to succeed at anything they choose, so in 2012 he started the Polar Academy, and has been sending teens on Arctic expeditions ever since.

The selection process starts with Craig and his team working with teachers to identify students who might be suitable. Sometimes, he starts with hundreds of names, but he eventually gets this down to twenty. Ten will join the expedition team and ten will join the leadership team, who are there to replace any expedition team members that might drop out. Although the leadership team doesn't actually go to Greenland, all students are taught the same things and benefit from the increased self-confidence that is one of the Polar Academy's key objectives.

The twenty potential expedition members are then required to participate in a demanding weekend of outdoor activities at Glenmore Lodge, Scotland's National Outdoor Training Centre, where Craig will decide who joins which team. Amongst other things, the students have to carry out a series of challenges underwater, even though some can't even swim. Craig never asks them to do these, because then they'd have a choice. Instead, he simply tells the students what he wants them to do – and of course, it's the ones who show they can control their fear that Craig will select.

Despite being tired from the underwater tasks, there's no rest for the students yet. They are all expected to complete a tough hike in the hills with Craig and his team. On arrival back at Glenmore, each student then has to give a 15-minute presentation in front of all the staff. Many find this difficult, especially as they are already exhausted. However, this is a deliberate strategy on the part of the selection team.

Once the selection process is over, the hard work really begins. There are ten months of intense training to take them from having almost no fitness to having the physical fitness of a top athlete. This is so that when they start to pull their equipment for the first time in Greenland, they realise how light it feels and they can just concentrate on the expedition. The months of training together also give them the ability to work as an effective team – essential for a successful expedition.

The Polar Academy is really starting to catch people's attention. It has even been the subject of a TV documentary, for anyone who is interested in finding out more.

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[Total: 16]

## Exercise 5

View solution






View solution

**13** Your town has been chosen as the location for a large international event.

**Write an email to a friend telling them about this.**

In your email, you should:

- explain why your town was chosen for the event
- describe what will happen at the event
- suggest how you could both get tickets to watch the event.

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.

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[Total: 16]

## Exercise 6

**14** In class, you have been discussing whether the school day should start and finish later, because many teenagers find it hard to get up early in the mornings.

View solution

Here are two comments from your classmates:

*I don't want to have less free time after school.*

I never go to bed before midnight, so I hate early mornings!

**Write an article for your school magazine, 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 article, and up to 8 marks for the language used.

[Total: 16]

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