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0510/21

October/November 2011

2 hours

No Additional Materials are required.

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO NOT WRITE IN ANY BARCODES.

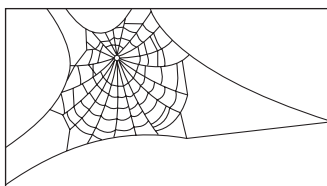
Dictionaries are **not** allowed.

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

This document consists of **15** printed pages and **1** blank page.

Exercise 1

Read the following information about a real-life Spider-Man, and then answer the questions on the opposite page.



Don't Look Down!

A real-life “Spider-Man” has climbed some of the world’s tallest buildings... with no ropes or safety equipment.

French climber, Alain Robert, well known for his amazing ability to climb enormous buildings, has succeeded in reaching the top of one of the highest structures in the world. He climbed the 452-metre Tower Two of the Petronas Twin Towers in Kuala Lumpur, the capital of Malaysia. Robert took two hours to complete his climb and, as usual, he used no ropes or safety equipment. If he had slipped, there was nothing between him and the road far below.

For 15 years, Robert has fascinated spectators and angered security guards by climbing skyscrapers and monuments such as the Eiffel Tower in Paris and the Golden Gate Bridge in San Francisco, California.

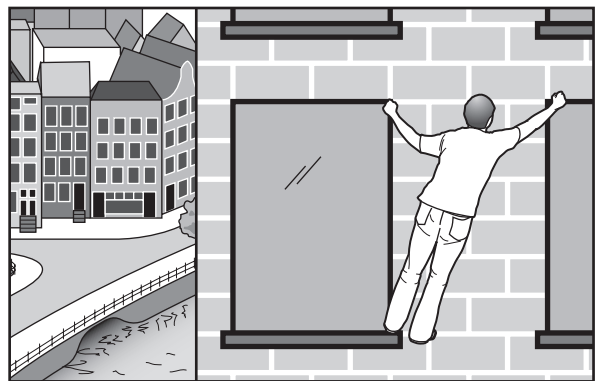
How does he do it?

He is an expert climber and makes his way slowly to the top by gripping window ledges and placing his fingers in cracks in the walls. He keeps a small bag of powder around his waist, to dry the sweat on his hands. Huge crowds gather to watch his terrifying climbs, but his activities have brought him a lot of trouble – he has been put into prison on four different continents. This is because he rarely gets permission for his climbs. He usually begins in darkness, appearing at dawn, already some distance up the side of his chosen building, and before anybody can stop him.

Success at last

This was Robert’s third attempt to climb one of the Petronas Towers. On the two previous

occasions, he had been stopped by security guards halfway through the climb. In this latest attempt, after finally reaching the top, he was immediately arrested. Robert was not too worried, however. “Climbing the Petronas has always been one of my dreams,” he said.



Some problems on the way to the top

The “Spider-Man” may have completed many successful climbs, but his attempts have not always been without problems. When he was climbing the 100-storey Willis Tower in Chicago, a thick fog descended and covered the glass walls of the building with moisture, making it very wet and dangerous. He reached the top, but only after slow and careful progress. In London, he was caught in a storm and had to be rescued by window cleaners.

A recent fall...

More recently, Robert fell and needed emergency surgery for a painful cut after climbing... a small tree! He was being photographed for a magazine interview at the time.

(a) In which country are the Petronas Towers?

..... [1]

(b) Why is Robert's method of climbing so dangerous?

..... [1]

(c) What does he carry to help him grip the sides of buildings?

..... [1]

(d) Why has Robert been in prison so often?

..... [1]

(e) When does Robert normally start his climbs?

..... [1]

(f) How many times had Robert failed to climb the Petronas Towers?

..... [1]

(g) Why was Robert unsuccessful in his earlier attempts to climb the Petronas Towers?

..... [1]

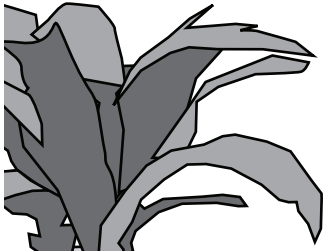
(h) What caused the glass walls of the Willis Tower to become wet?

..... [1]

[Total: 8]

Exercise 2

Read the following article about the discovery of strange animal species living around a remote volcano, and then answer the questions on the opposite page.



Discoveries in Papua New Guinea



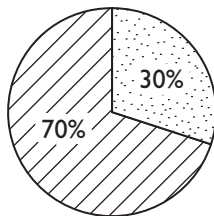
For many months George McGavin refused to describe the extraordinary creature he had discovered. "People would ask me if it had four legs, and if it had fur," he said. "I didn't tell anyone, not even my wife."

Finally, last September, McGavin revealed that he had observed a previously undiscovered giant rat. This was the most amazing discovery that his team had made on a journey to one of the most remote places on earth.

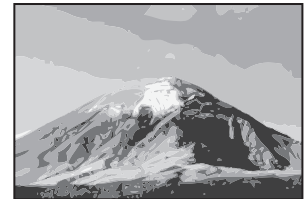
The giant rat was discovered in Bosavi in Papua New Guinea, an island in the Pacific Ocean. The rat measures 0.8 of a metre from nose to tail and weighs 1.5 kilos, about the size of a small cat. It has thick fur and appears to be vegetarian. The rat was not the only unusual animal they encountered on the expedition. The team found about 40 other species unknown to science, including some fish, frogs and beetles.

The team travelled to Mount Bosavi and stayed for about six weeks. This extinct volcano is isolated, rising 2,500 metres above the lowland rainforest. Its crater is an enclosed area full of unnamed life forms and with its own climate. The last eruption of Mount Bosavi was about 225,000 years ago, so new species have had plenty of time to develop.

The rainforest in Papua New Guinea: home to many species



-  species existing outside the rainforests
-  species existing inside the rainforests



Before making the trip up to the top of the volcano, the team spent some time filming in the lowland rainforests, which are home to many types of species. This area presents considerable challenges for wildlife film-makers, who often spend long hours waiting for something to happen but in the end seeing nothing but ants. Furthermore, there were no spectacular creatures like monkeys or wild cats, which always attract big audiences to television programmes. In addition, most of the mammals were extremely afraid of humans because they are often hunted by the local tribesmen. Nevertheless, the television team managed to find an extraordinary range of creatures with fascinating lives, proving that it's not just wild cats that are interesting. In the end, the days spent filming proved worthwhile even though the team was constantly bitten by mosquitoes.

After exploring the rainforests, the team flew to the rim of the crater in a helicopter. Only thirty seconds after landing, one of the group noticed a different type of frog, almost certainly a species unknown to man. Unlike the mammals and birds in the lowland forests, these creatures were not nervous of humans – a sign that there was very little hunting up in the crater. One unexpected encounter was with a tree kangaroo. As McGavin said: "Animals like this are usually really shy and hard to film, but this one just wandered past our camp. We couldn't believe it!"



All these new species are now being studied at scientific institutions. Each one will have to be named. Typically, the name will refer to a characteristic of the creature or the place where it was found. It might even include the name of the scientist. However, as McGavin states: "It's fine to name something after one of your colleagues, but it's not considered correct procedure to name a new species after yourself."

(a) What was George McGavin's major discovery and when did he first tell everyone about it?

..... [1]

(b) What is the length and weight of the new discovery?

..... [1]

(c) Why is the extinct volcano favourable to the development of new species? Give **two** details.

.....
..... [2]

(d) According to the chart, what percentage of species live in the rainforests of Papua New Guinea?

..... [1]

(e) Which **two** animals are most popular with television viewers?

..... [1]

(f) What first indicated that the team might find new species in the crater?

..... [1]

(g) How did the volcano animals behave differently towards humans compared to the lowland forest animals?

..... [1]

(h) How do scientists usually name new species? Give **two** details.

.....
..... [2]

(i) What problems do film-makers face when trying to make good television programmes in the rainforests of Papua New Guinea? Give **four** details.

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

[Total: 14]

Exercise 3

Anton Marica, aged 19, has always loved the sea. However, he lives with his family far from the coast in Bucharest, the capital of Romania. Their address is Apartment 5, Calea Victoriei, 701081 Bucharest, and the email address, which the whole family uses, is **jpammarica@connect.ro**.

Anton would like to spend his next holiday doing water-based activities in a warm country. His parents have agreed that he is old enough to travel by himself for the first time. He has to make a choice between sailing, windsurfing and scuba diving, and since he has had plenty of experience of the first two activities on the Black Sea he has decided to try something completely new.

The Water Fun Company organises six courses that interest him, but three of them are not suitable because he has no experience at all of scuba diving and they are for advanced level divers. The other three are in The Maldives, Thailand and Australia respectively. They all offer fantastic diving on coral reefs and the weather would appear to be perfect in all the locations. So Anton has to make his decision based on other factors.

He will have to pay for the trip by working part-time in an office near his home. His parents have agreed that they will pay for the diving course, but there is the cost of the flight and accommodation to consider. Australia is the furthest from Romania and the cost of an airline ticket to get there is too expensive, so that is his third choice of country. Through studying the course details carefully, Anton has seen that the course in Thailand offers diving tuition for six hours every day and that also costs too much. In addition, there is a minimum of six persons to each group and he wants to be part of a smaller group with a maximum of three divers and an instructor, which is on offer in The Maldives. He hopes that this will enable him to learn the basic techniques more quickly.

The only other detail to decide is the number of days for the course. The shortest course is not really good value for money. However, the longest one is again too expensive and so he has to compromise and choose the only remaining option.

Anton has one other slight problem. Six months ago he had an ear infection, which affected his hearing and balance. He asked his doctor's advice, and she told him that it would be a good idea to mention it when applying to the company, especially because Anton wants to book the holiday insurance with them. Dr Ionoscu has agreed to explain the situation fully to the holiday company if necessary. She has a mobile/cell phone 378512086 for use with her family and friends. The only means of contacting her is by email at **docinscu@comnet.ro**.

Imagine you are Anton. Fill in the form on the opposite page, using the information above.

The Water Fun Company

Holiday Course Application

Section A Personal details

Full name:

Address:

Age group: (please circle as appropriate) under 12 12 to 16 17 to 21 21+

Contact details:

Section B Course details

Preferred choice of activity:

Choice of country: (please list in order of preference)

1) 2) 3)

Preferred length of course: (please circle one) 4-6 days 7-9 days 10-12 days

In your chosen activity, would you consider yourself: (please underline one)

BEGINNER? INTERMEDIATE? ADVANCED?

Do you have any health considerations? Please give brief details:

.....

Do you require holiday insurance from The Water Fun Company? (please delete one) YES / NO

If YES, please give the following details:

Name of doctor:

Contact details:

Section C

In the space below, write **one** sentence of between 12 and 20 words, giving the reason for your choice of water-based activity.

[Total: 8]

Exercise 4

Read the following article about a museum in Tokyo, the capital of Japan, and then complete the notes on the opposite page.

A world of wonders

It's an early spring morning in Tokyo and you are walking along Kichijoji Avenue, in Inokashira Park. After a while, you come to a small, black iron gate. You push it open, step through the gateway, and stare. Staring right back at you is a huge, furry, grey-faced, black-whiskered creature, sitting upright in a tall, glass box. This strange guard is called a Totoro, and you are about to enter the world of its creator, Hayao Miyazaki.

Since the 1960s, Miyazaki has worked on several television series and directed nine major feature films. He is known internationally for his imaginative fantasy film, "Spirited Away". This is the story of a ten-year-old girl who, by chance, finds an abandoned adventure park, which is in fact another world. The film is aimed equally at adults and children, and like many of Miyazaki's stories it is a mixture of Japanese tradition and ideas from world literature.

When you walk past the Totoro at the gates, you are inside the Ghibli Museum – an art gallery and adventure playground in one place. If you are used to long queues and boring exhibits at museums, then you will be pleasantly surprised. The building is a castle, painted in amazing shades of yellow, green and purple.



Upstairs, a series of rooms shows how a film is made. The main attraction is Miyazaki's study, overflowing with models and books. All of these have been created or written by Miyazaki himself. Pinned to the walls are colourful sketches, which show the first ideas for his film plots. It is astonishing how much time is needed to create the final version of a film from these first ideas. The many photographs and drawings on his workdesk give an indication of the patience that he shows when making animated films. On his desk there are clues to his interests: he has an obsession with flying, from small aircraft to modern glider planes, from garden birds to powerful birds of prey.

Miyazaki himself is a white-haired 68-year-old with a neat beard. He is an intensely private person, who rarely gives interviews or appears in public. Totally dedicated to his work, he will happily spend fourteen hours a day concentrating on his various projects.

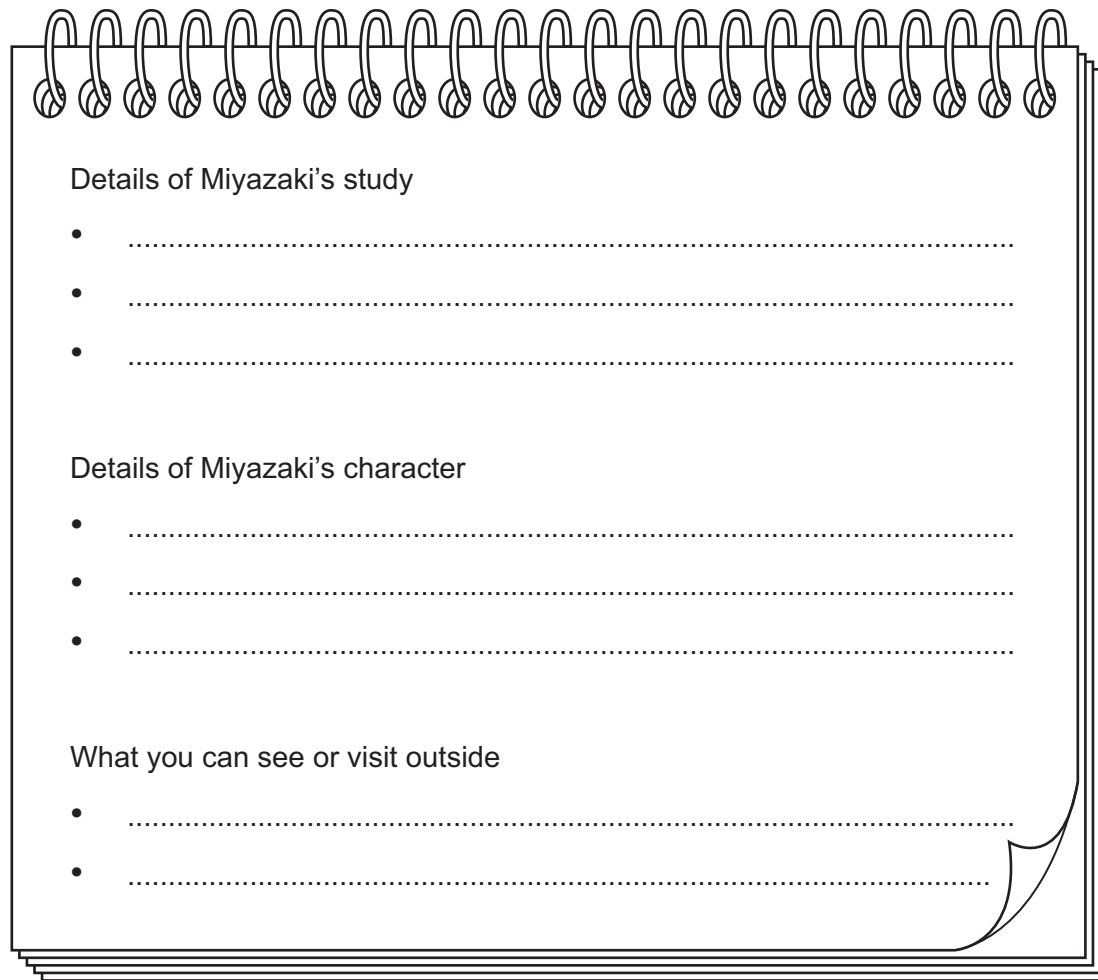
When you have spent long enough inside the building, there is still the rooftop garden to explore. There stands the bronze statue of a robot-soldier. Red pine trees provide shade from the hot sun on the rooftop café, which serves good tasty food, including enormous slices of strawberry cake.

Tokyo has many places where you can spend your time and your money. But Ghibli is unique; if you are ever in the neighbourhood, make sure that you walk down Kichijoji Avenue, say "hello" to the Totoro, and step inside.



You are going to give a presentation to your school's Film Club about the Ghibli Museum. Prepare some notes to use as the basis of your talk.

Make your notes under each heading.



Details of Miyazaki's study

-
-
-

Details of Miyazaki's character

-
-
-

What you can see or visit outside

-
-

[Total: 8]

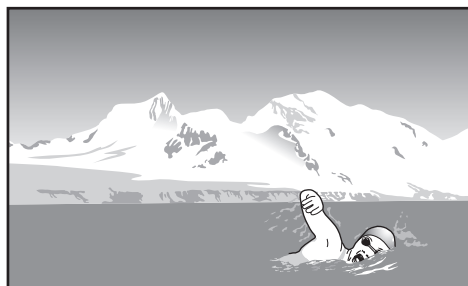
Exercise 5

Read the following article about the growing number of people who swim in ice-cold water. **On the opposite page, write a summary of the possible health benefits of this activity.**

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

You will receive up to 6 marks for the content of your summary, and up to 4 marks for the style and accuracy of your language.

Some like it



There seems to be something totally insane about swimming in the middle of winter in the icy cold seas of northern Europe. However, the growing number of people who love this activity are convinced that the benefits to their health are far greater than the brief discomforts.

Across northern Europe, where the winter months last from October to March, many people believe that diving into freezing water and swimming around helps to fight off colds and other illnesses. But is it really safe to expose the body to such unbelievably cold temperatures? Enthusiasts of this type of exercise claim that weekly swimming sessions in freezing water repair and refresh the whole body. This view seems to be supported by athletes and professional sportspeople, who regularly take ice baths as part of their physiotherapy treatment when recovering from injuries.

Craig Smith, a professional physiotherapist, says: "When receiving treatment, people often mix ice and water depending on how much discomfort they can tolerate... some like it colder than others. When you get into an ice bath for five to ten minutes, the icy cold water causes your blood vessels to tighten and drains the blood out of your legs. After ten minutes your legs feel cold and numb. Then, when you finally get out of the bath, your legs fill up again with 'new' blood, which invigorates the muscles with oxygen. This helps the cells in the body to work better."

The winter swimmers usually start their season in September, when the water is still quite warm after the summer months. This gives their bodies a chance to become used to the increasing cold. Andrej Barthes, an enthusiastic member of a large winter swimming group, explains: "If you just start in December, then there will be a big shock to your body. We find it is better to begin in September, when the water is warmer, at about 17 degrees Celsius. It then gradually gets colder until, in the middle of winter, the water is zero degrees or just above." He adds: "I am convinced of the health benefits. It helps me forget about the anxieties and worries I have in my job. It really becomes a habit that is hard to break."

Despite all the claims from the enthusiasts, many doctors are undecided about the medical benefits of dipping your body into icy water. In fact, they generally advise against such activity if you suffer from heart disease or asthma. Moreover, even if you are totally healthy, you should not stay in the water for more than five minutes because it is too dangerous.

Whatever the view of the doctors, however, there is evidence that swimming in icy cold water can boost your mood and give you a more optimistic outlook. Exposure to very cold temperatures has even been used to treat some forms of depression.

[Turn over

Exercise 6

You recently had an unexpected day's holiday from school.

Write a letter to a friend explaining:

- why the school was closed for the day;
- what you did during the day;
- why it was better or worse than a day at school.

The pictures above may give you some ideas, but you are free to use any ideas of your own.

Your letter should be between 150 and 200 words long. Do not write an address.

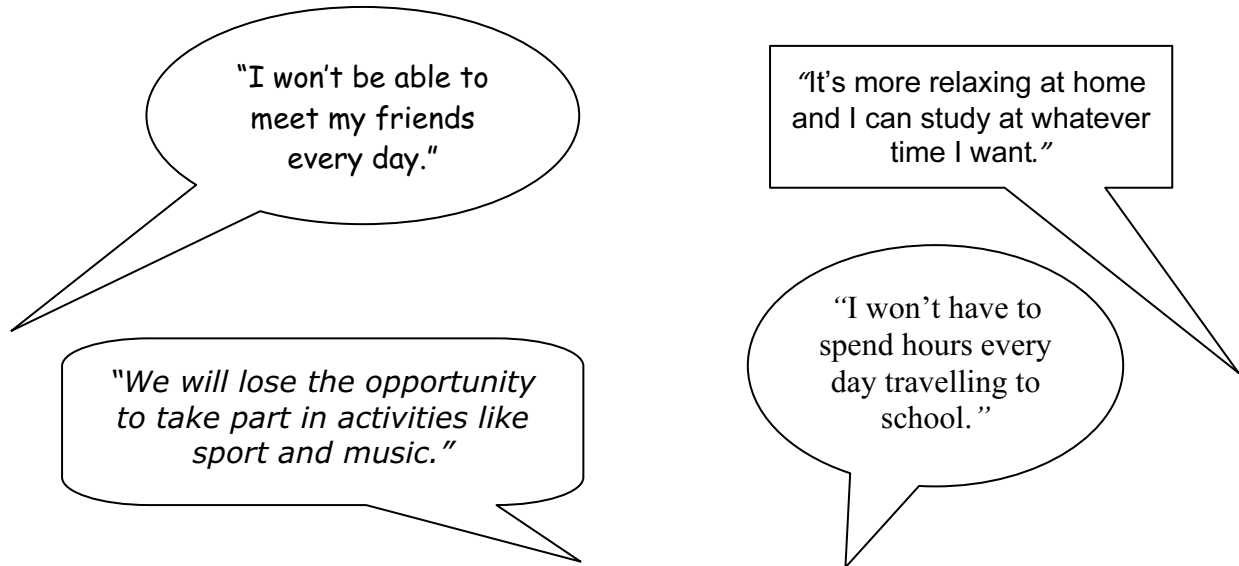
You will receive up to 9 marks for the content of your letter, and up to 9 marks for the style and accuracy of your language.

[Turn over

Exercise 7

Some people say that in the future there will be no schools and students will learn online at home.

Here are some comments from young people about this idea:



Write an article for your local newspaper giving your views about the issue.

The comments above may give you some ideas, but you are free to use any ideas of your own.

Your article should be between 150 and 200 words long.

You will receive up to 9 marks for the content of your article, and up to 9 marks for the style and accuracy of your language.

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