

1.

Space Tourism

In 1969, a man walked on the Moon for the first time. After this, many people thought that space travel would be available by the year 2000 and that we would all be space tourists. However, here we are in 2015 and space tourism is still an impossible dream for most of us. It is a reality for only a very few, very rich, people.

How would you get to your space hotel?

In the future there may be hotels in space for all the tourists. It wouldn't take long for the space shuttle to get out of the Earth's atmosphere. Then, without Earth's gravity, you would become weightless. Arrival at the hotel would be like an aeroplane parking at an airport but you would leave the cabin floating along the access tube, holding on to a cable.

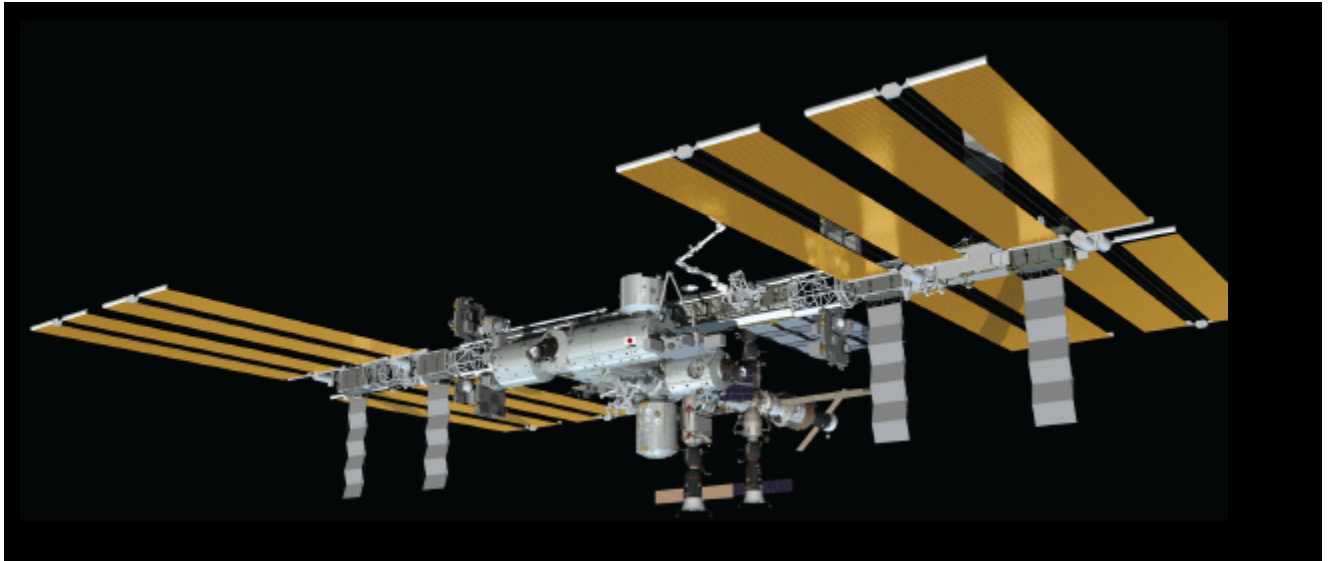
Fact: The Russian Space Agency offers flights on board a spacecraft to the International Space Station (ISS), where people can stay. The ISS was built in 1998 and is so big that it can be seen from Earth. Tickets to the ISS are very limited.

What would a space holiday be like?

Once in the hotel, you could admire the unique views of Earth and space and enjoy the endless entertainment of being weightless – and there would always be the possibility of a space-walk.



Fact: The first tourist in space was Dennis Tito in 2001. His trip cost him around £14 million.



Who has already had a holiday in space?

In 2006, Anousheh Ansari became the first female space tourist when she made the trip from Russia to the International Space Station (ISS). Anousheh stayed on the ISS for eight days and kept a blog (an online diary). Parts of her blog are shown here.

Anousheh's Space Blog

September 25th

Everyone wants to know: how do you take a shower in space? How do you brush your teeth? Well my friends, I must admit keeping clean in space is not easy! There is no shower with running water. Water does not 'flow' here, it 'floats' – which makes it a challenging act to clean yourself. There are wet towels, wet wipes and dry towels that are used. Now brushing your teeth in space is another joy. You cannot rinse your mouth and spit after brushing, so you end up rinsing and swallowing. Astronauts call it the 'fresh mint effect'.

September 27th

Being weightless has some wonderful advantages. You can lift a really heavy object with one hand and move it around with one finger. You can fly and float around instead of walking. You can do somersaults at any age. Everything is effortless. If you want to move forward, you slightly touch a wall with one finger and you start moving in the opposite direction. If you have left your book at the other side of the module, no problem – you ask someone close to it to send it to you. That means they pick it up and very gently push it towards you, and here it is – your book flying to you all the way from the other side.



Shooting stars

Be a space tourist at home

While space travel is an impossibility for most of us, you can still be a tourist from here on Earth by spotting shooting stars!

Space is full of huge and tiny pieces of rock, which burn up in a flash when they enter the Earth's atmosphere. The flash of burning rock is called a meteor. As it moves through the night sky, you can see the trail it leaves behind – which is what we know as a shooting star.

On most clear nights, you should be able to see up to 10 meteors every hour. But, at certain times of the year, many more meteors appear than usual. When this happens, we call it a meteor shower.

Star spotters' guide to seeing shooting stars

1. Find out when a meteor shower is due and arrange to go star spotting with an adult (they don't have to be an expert!).
2. Wear warm clothes and equip yourself with a blanket, a pillow and a torch.
3. You do NOT need a telescope or binoculars.
4. Go outside and find somewhere that is far away from town lights.
5. When you have found your spot, lie down on your blanket, switch OFF your torch and stare up at the sky.
6. Allow some minutes to pass. The longer you look, the more stars you will see as your eyes get used to the darkness.
7. Wait for the shooting stars to appear!



2.

1. Look at the introduction.

Why is space tourism *impossible* for most people?

1 mark

2. How would you get from the spacecraft to the space hotel?

1 mark

3. According to the text, what could you do on your space holiday?

Give **two** examples:

1. _____

2. _____

2 marks

4. How much did the first space tourist pay to go into space?

1 mark

5. How can you tell that the International Space Station is very large?

1 mark

6. How did Anousheh's trip into space make history?

1 mark

7. Look at the text box ***Who has already had a holiday in space?***

Complete the table about Anousheh's trip into space.

Where did she start her trip?	
Where did she stay in space?	
How long did she stay in space?	

2 marks

8. Look at Anousheh's blog entry for September 25th.

Find and **copy** a group of words that shows that Anousheh wrote her blog for others to read.

1 mark

9. Look at Anousheh's blog entry for September 27th.

Explain how Anousheh felt about being in space that day.

2 marks

10. Match the events below to the year in which they happened.

Anousheh Ansari went to space.	1969
The first man stepped on the Moon.	1998
Dennis Tito went to space.	2001
The International Space Station was built.	2006

1 mark

11. Using information from the text, tick one box in each row to show whether each statement is a **fact** or an **opinion**.

	Fact	Opinion
Anousheh Ansari kept an online diary.		
Brushing your teeth in space is a joy.		
Being weightless is endlessly entertaining.		
Tourists can stay on the International Space Station.		

1 mark

12. *..in a flash...*

What does this tell you about the burning of rocks in space?

1 mark

13. Find out when a meteor shower is due and arrange to go star spotting with an adult ...

In this sentence, the word *arrange* is closest in meaning to...

Tick **one**.

set out.

meet.

pack up.

plan.

1 mark

14. How does the information make it sound easy to be a star spotter?

Give **two** ways.

1. _____

2. _____

2 marks

15. Tick **true** or **false** in the following table to show what you should do when spotting shooting stars.

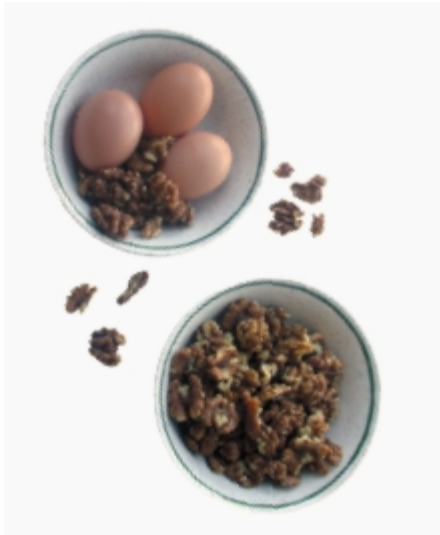
	True	False
Take warm clothes, a blanket, a pillow and a torch.		
Stay close to town.		
Point your torch up to the sky.		
You must have binoculars.		

1 mark

POMPEII TODAY

LOST AND FOUND

On that fateful day in AD 79, the town nearest the volcano was completely smothered under a layer of ash and rock. This unusual blanket protected the remains of the town of Pompeii for hundreds of years. Gradually it has been uncovered and many fascinating discoveries have been made. By studying these remains experts have found out about life in the area near the volcano and about the day the volcano erupted. They found scenes preserved exactly as the people had left them: tables laid for meals with loaves of bread, baskets of eggs and nuts, all now solidified.

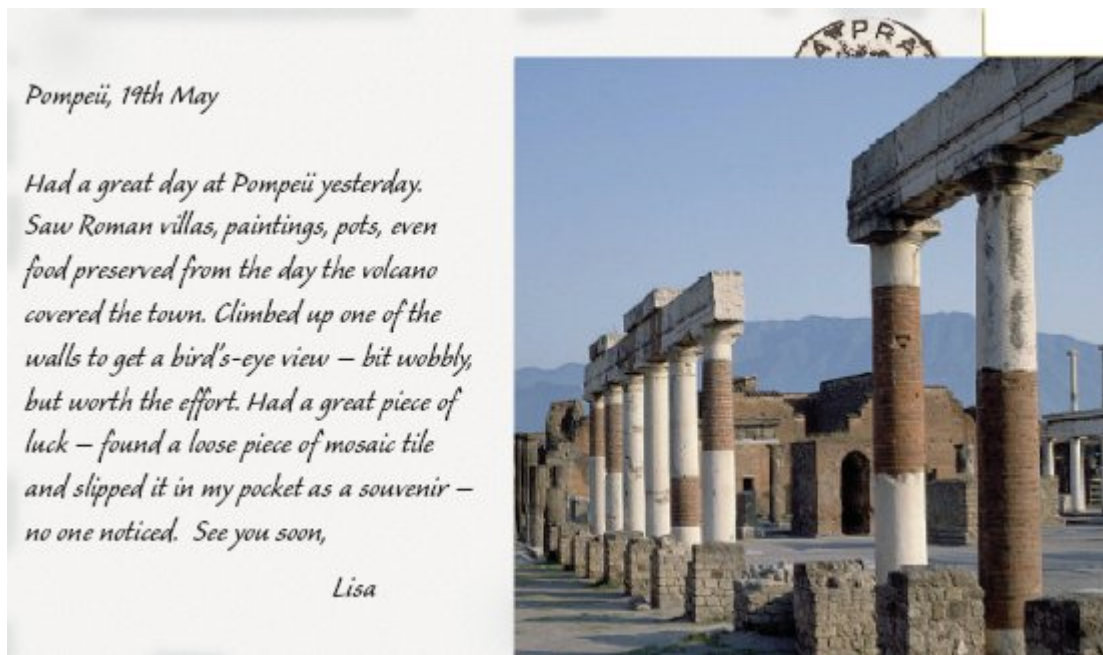
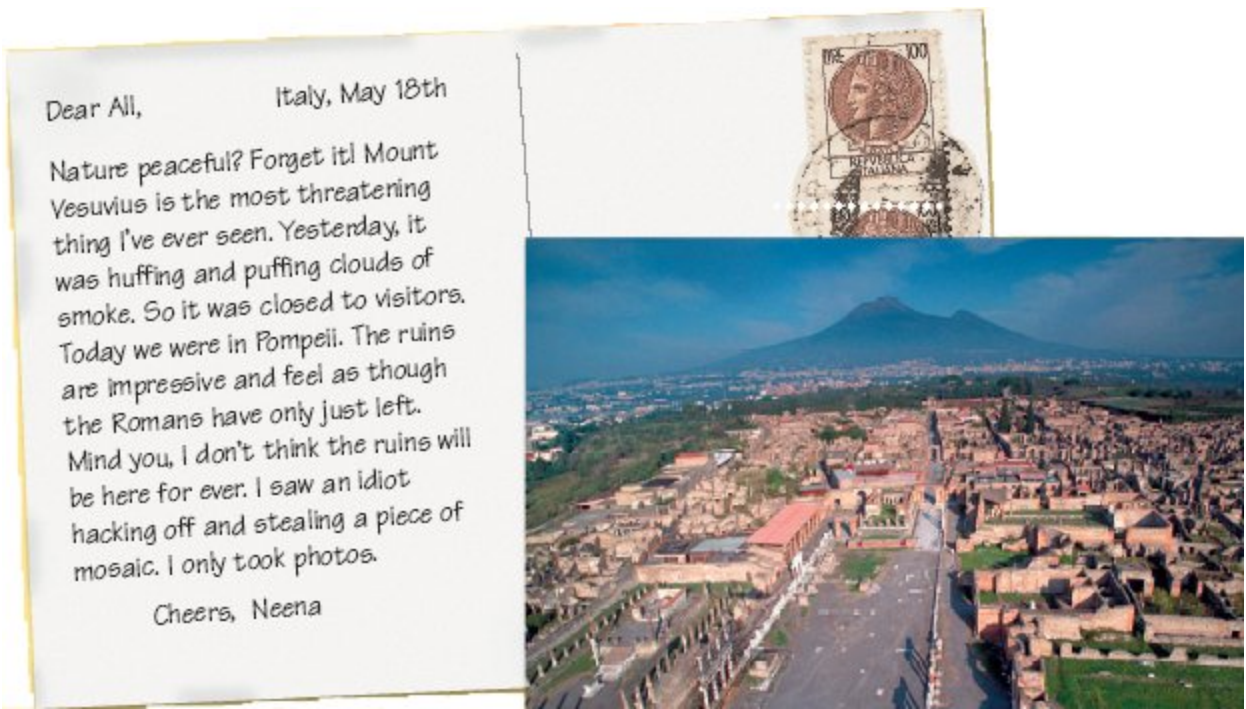


POMPEII UNDER THREAT AGAIN?

Today, thousands of tourists flock to see the remains of this unique town, trapped in time. People are fascinated by the opportunity to see what life was like two thousand years ago. Many also make the difficult climb up Mount Vesuvius to peer into the smouldering crater.

The huge number of visitors who visit Pompeii every year is bringing a large set of problems. Parts of the ruins are being worn away just by the large numbers of people who pass through. Furthermore, not all visitors treat the site with respect. There has been vandalism, some treasures have been stolen and some people just don't realise the danger of clambering over the remains – both to themselves and to the ruins. One archaeologist has gone as far as to describe what is happening now as 'the second death of Pompeii'.

Below you can read two different postcards, written by tourists who visited Pompeii on the same day. These were the messages they sent home.



4.

What was the *unusual blanket* that covered the town?

1 mark

2. ... *not all visitors treat the site with respect.*

Give **two** different ways in which they cause damage to the town.

1. _____

2. _____

2 marks

3. ... *trapped in time.*

Why do you think Pompeii was described in this way?

1 mark

4. Why does the archaeologist believe that he is watching *the second death of Pompeii*?

2 marks

These questions are about the postcards.

5. Why was Vesuvius closed to visitors on the day Neena wanted to visit it?

1 mark

6. What opinion did Neena and Lisa have in common?

1 mark

7. Neena could have written

I saw someone taking a ...

but instead she wrote

I saw an idiot hacking off and stealing a ...

What does Neena's choice of words tell you about the way she felt?

1 mark

8. Why does Lisa say that she was lucky?

1 mark

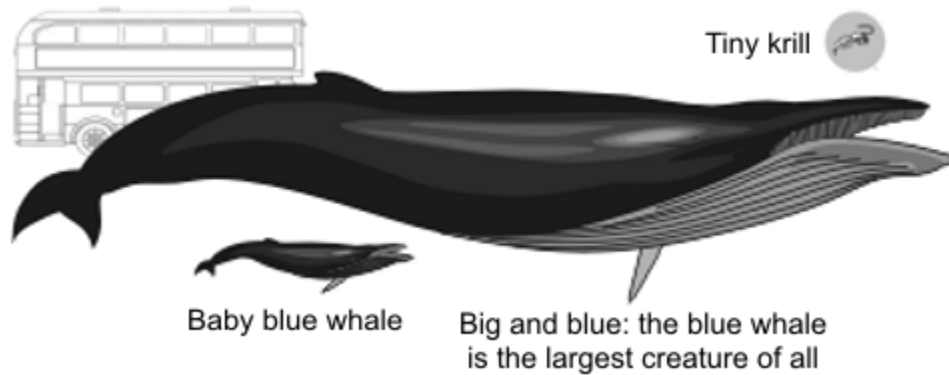
9. **Find and copy** the group of words that show that Lisa knew she had done something wrong.

1 mark

5.

The Blue Whale – MAKING A BIG SPLASH

The most amazing fact about the blue whale is that it is the largest creature that has ever lived on Earth. This means that it is even bigger than any of the dinosaurs. By the time it becomes a teenager, it is about 30 metres long and weighs more than 30 elephants.



WHY BLUE?

The blue whale is named after its blue-grey skin, which may have white-grey spots. The underbelly may also have brown, yellow or grey specks.

BABY BLUE

Blue whale calves are born tail first, near the surface of warm, shallow waters. At this early stage they are about seven and a half metres long, and are able to swim just 30 minutes after birth. Blue whales live for 35 to 40 years, although it is thought that some survive until they are about 110 years old.

OPEN WIDE

This enormous creature feeds mainly on some of the smallest creatures in the ocean, called krill. Krill look like shrimps and are about the size of a small human finger. In the summer, the blue whale eats several million krill each day. In the winter, it travels to new feeding grounds in the search for krill.



Tiny krill

Inside the blue whale's gigantic mouth, there are no teeth. Instead, hundreds of stringy plates hang down from the upper jaw. They act like a giant sieve, filtering krill and other small creatures from the water. After every mouthful, the whale licks the plates with its giant tongue, swallowing everything that's been trapped there. As the whale gulps in vast amounts of seawater, the loose throat skin expands like a huge balloon. Then, it closes its mouth and pushes out the water with its tongue.

RECORD BREAKERS

As well as being the largest, blue whales are the loudest animals on earth. They repeatedly make whistle-like sounds which can travel for many kilometres under water. The noise they make is much louder than an aeroplane, and so loud that it would be painful for humans to listen to, if they were too close by. These whale sounds are called songs, and may be used for locating large amounts of krill, and for communicating with other blue whales.

6.

Use the information to complete this table of facts about the blue whale.

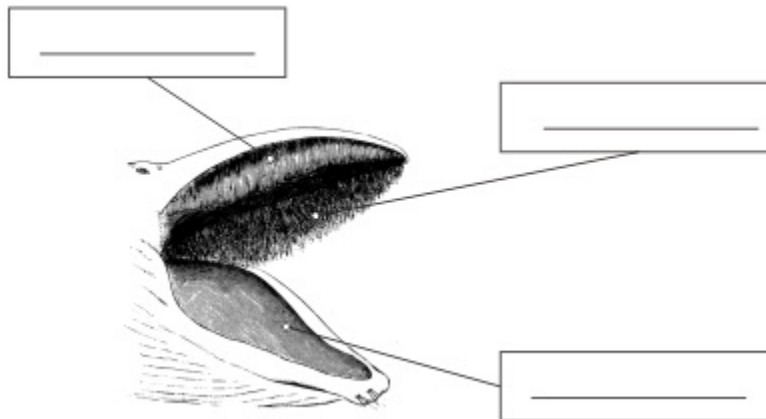
Two sections have been done for you.

Colour	<i>blue / grey</i>
Length at birth	
Length as a teenager	
Usual life span	<i>35 – 40 years</i>
Main food	

3 marks

2. Look at the information in *Open Wide*.

Using this information, label what is shown in the diagram.



3 marks

3. The text compares the sound the blue whale makes to that of an aeroplane.

(a) How does this comparison help you to understand the information?

1 mark

(b) Find another comparison in the writing.

1 mark

Art in Nature

Look at this photograph of a sculpture made by an artist called Andy Goldsworthy.



He has made the shape out of leaves from a horsechestnut tree. He has used thorns to hold them together. The sculpture is in the woods where it was made.

Andy Goldsworthy: Inspired by nature

All of Andy Goldsworthy's sculptures are like this, made out of the things he finds in nature and nothing else. He only uses fallen or dying materials and never takes them away from where he finds them.

He builds towers or arches with flat stones. He weaves with branches. He makes patterns out of sticks and plant stalks.

He doesn't carry a bag of tools and he doesn't buy his materials. Instead, he goes empty-handed to a suitable place and works with nature. He often starts work hours before daylight.

Instead of using glue, he uses the early morning dew or frost. Instead of using nails or pins, he uses thorns.

Have you ever made a daisy chain or floated leaves down a stream? Well that is the kind of way Andy Goldsworthy works. He is an artist with the curiosity of a child and a deep understanding of nature.

Artists like Andy Goldsworthy are called 'environmental sculptors'. This means they make sculptures without causing any damage to nature or the environment. It is a different way of working from most artists.

Some more examples of Andy Goldsworthy's work



Dead but still standing

Made with plant stalks from the previous year.



Late evening calm

Made from poppy petals held with water to a horse chestnut leaf.



Balanced Slates

Andy Goldsworthy



Some facts

- ◆ **He was born in Cheshire in 1956 but grew up near Leeds**
- ◆ **He went to Bradford and Lancaster Art Colleges.**
- ◆ **He has lived in Scotland for the past 11 years.**
- ◆ **He is married with four children**
- ◆ **His only hobby is fishing**

Try it yourself

Anyone can have a go at being an environmental sculptor. All that you need is a place which has lots of interesting plants, trees, earth or rocks.

A visit to a park, wood, forest, rocky place, the beach or even the school playground, will provide all of the materials.

Here are some suggestions of things to make and do, using nature's materials.

- Try weaving long grasses into something.
- Use thorns to attach twigs, plant stalks and leaves into patterns on the ground or along a tree trunk.
- Arrange loose, large pieces of wood or branches in an interesting and unusual way.
- Float leaves, twigs or dying flower petals on pools, streams or puddles.

You might like to keep a record of your sculpture.

Take a photograph or do a simple drawing of the sculpture and write a description of it.

Think about:

- *how it is arranged;*
- *what material the sculpture is made from;*
- *how the sculpture fits with its environment;*
- *a title for it.*



8.

Tick the correct option to complete the sentence below.

Andy Goldsworthy's work comes from

Tick **one**.

cities.

nature.

books.

museums.

1 mark

2. (a) What does Andy Goldsworthy do with the dew, frost and thorns?

1 mark

(b) Why is it important that he uses the dew, frost and thorns instead of other materials?

2 marks

3. *He is as artist with the **curiosity** of a child...*

Give the meaning of the the word *curiosity* in this sentence.

1 mark

4. Why does the article ask the reader:

Have you ever made a daisy chain or floated leaves down a stream?

2 marks

5. (a) Which section gives you information about Andy Goldsworthy's life, rather than his work?

Tick **one**.

Try it Yourself

Examples of Children's Work

Some Facts

Some More Examples of
Andy Goldsworthy's Work

1 mark

(b) Explain why the article gives this information about his life.

1 mark

Look at the information *Try it Yourself* to help you answer these questions.

6. *Float leaves, twigs or dying flower petals on pools, streams or puddles.*

Why does the article suggest that the flower petals should be **dying**?

2 marks

7. (a) How does the article suggest you could keep a record of any sculptures you might make?
Give **three** ways.

1. _____
2. _____
3. _____

1 mark

(b) Why might you want to keep some sort of record of your sculpture?

1 mark

8. After reading this article, would you like to have a go at being an environmental sculptor yourself?

yes

no

Explain your answer as fully as you can, using the text to help you.

2 marks