


1.

# The New Explorers

Throughout history, we have been fascinated by the unknown. Hundreds of years ago sea-faring explorers set off in their ships to discover unknown lands across the seas. They discovered 'new worlds' and different ways of life. In more recent times, our need to explore has taken us on new voyages of discovery...

 <h2>Space History Table</h2> <p>The first flight into space took place over 40 years ago. Since then, scientists have worked hard to explore space and find ways of living there. This table shows key dates in the history of space exploration.</p>		
<b>1961</b>	The first man in space: <i>Yuri Gagarin</i>	Flight time 2 hours
<b>1963</b>	First woman in space: <i>Valentina Tereshkova</i>	Flight time 3 days
<b>1969</b>	First men on the moon: <i>Neil Armstrong and Buzz Aldrin</i>	Duration 1 week
<b>1973</b>	The first space station: <i>Skylab</i>	Astronauts in space for several months
<b>1976</b>	Space probes: <i>Viking 1</i> and <i>Viking 2</i> land on Mars	Months of unmanned exploration
<b>1986</b>	Largest space station, <i>Mir</i> , launched	Some astronauts work in space for over a year
<b>1991</b>	The first British astronaut, <i>Helen Sharman</i> , visited <i>Mir</i>	Helen spends a week on the space station
<b>2001</b>	<i>International Space Station (ISS)</i> launched	Astronauts from all over the world can live and work in space for months at a time

# Helen Sharman



**Helen Sharman is the first British astronaut. Here are some of the things she said about the time she spent on Mir performing scientific experiments and experiencing the unique feeling of being in a ‘new world’.**

“Inside an orbiting spacecraft you feel weightless. Because you’re travelling so fast, you’re pulled towards the Earth as it curves away below you. It’s as though you’re constantly falling round the Earth. Wonderful!

We go into space because of the useful things we can find out there, but no astronaut ever tires of just looking out of the window. If you look towards the Earth you see vast oceans of rich blue, sprinkled with snow white clouds that are so bright with reflected sunlight that it hurts your eyes to look at them for long.

Deserts are brick-red, crossed with sandy coloured roads that seem to have neither beginnings nor ends. If you look away from Earth into space, you see millions and millions of stars that seem to go on forever.”



2.

Circle the correct option to answer the question below.

Who are *New Explorers*?

space  
travellers

sea-farers

vikings

aliens

1 mark

2. Look at the table called *Space History*.

Tick one box on each row to show whether each statement is **true** or **false**.

	True	False
The first man landed on the moon in 1961.		
<i>Skylab</i> was the name of a space station launched in the seventies.		
Two astronauts landed on Mars in 1976.		
People can stay in space for longer nowadays than they could at first.		

2 marks

3. The Space History Table has no column headings.

Use the information in the table to think of helpful headings for each column.

One has been done for you.

Write your headings here.

	Explorers and space ships	
<b>1961</b>	The first man in space: <i>Yuri Gagarin</i>	Flight time 2 hours
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2 marks

4. What makes Helen Sharman special in this country?

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1 mark

5. What does Helen say is the main reason for going into space?

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1 mark

6. What were the **two** things that Helen most enjoyed on board the space station?

1. \_\_\_\_\_

2. \_\_\_\_\_

2 marks

7. Look at the paragraph beginning: *Helen Sharman is ...*

**Find** and **copy one** word meaning *like nothing else*.

\_\_\_\_\_

1 mark

# Can we live in Space?

**S**PACE scientists are continually carrying out experiments to find out what the effects of space are on the human body. This knowledge will be vital for the health of astronauts on the long journeys to Mars planned for later this century. Astronauts of many different nationalities may stay on space stations for several months. Like Helen Sharman, they find that it's not quite the same as life on Earth.



## Which way is up?

The floors and ceilings on Mir are painted in different colours to help astronauts orientate themselves. Cabins in spacecrafts have vertical sleeping bags - it doesn't matter which way you lie when there's no gravity pulling you down.

## Working out

Weightlessness is bad for the bones and muscles, so space-farers must strengthen them by long periods of exercising - either on a moving walkway or on an exercise bike.

## Space food

The food has to last for several months, so it is mostly canned or dried. Hot water is added to packets of dried soup or vegetable puree. By rolling up one end of the packet, liquids are drunk from the other end through a spout.

## Spin-offs from space travel

Almost every home has benefitted from the new technology used to send people into space. Did you know that all of the following things were invented as part of the space programme?

- Computerised bar codes for labelling items
- Cordless power tools for use without mains electricity
- Dried food for easy storage
- Teflon for strong and non-stick pans
- Smoke detector as a safety precaution



4.

*This knowledge will be vital for the health...*

Which word most closely matches the meaning of the word vital?

Tick **one**.

energetic

light

active

necessary

1 mark

2. Much of the food taken on a spaceship is **dried** food.

Find **two** reasons why dried food is used.

1. \_\_\_\_\_

2. \_\_\_\_\_

1 mark

3. Look at the paragraph beginning: *Almost every home has...*

**Find and copy one** word meaning been helped by.

\_\_\_\_\_

1 mark

# Beach Detective

May 2003

## Newsletter

Detective House, New Road, Seamount, SE10 9LU

**W**elcome to the latest copy of Beach Detective. As you can imagine I spend a lot of my time on the beach. Some people may think that this is boring but not me. How can you get bored when everything around you is always changing and the sea is always bringing you gifts? You have certainly kept me busy this month. I have been finding out about everything from rubber ducks to giant bird eggs!

### All change

There are many things which change on the beach. The sun makes colours fade. The wind can change a calm sea into a rough sea. The sea and the sand can change a broken piece of glass into a smooth and shiny jewel.



### Gifts from the sea

Everyone expects to find shells, seaweed and pebbles on the beach. Which of the following objects do you think have been washed up on beaches around the world?

- 29,000 yellow rubber ducks
- 2,000 new trainers
- 3 million plastic animals and bricks



Well, the truth is that all of these things have been found on beaches in the last ten years.

### Can you help?





I wonder if any of you know what these unusual objects are?

If you think you know what they are, write to me here at the newsletter offices or send me an email at [beachdetective@qca.org.uk](mailto:beachdetective@qca.org.uk)



## In Depth



This month we are going to take an **In Depth** look at an unusual object which was found on a beach in Australia. It was big enough to hold eight ostrich eggs, or one hundred and eighty chicken eggs! What was it? It was an ELEPHANTBIRD EGG. I wanted to find out more so I put my detective hat on and started investigating. I got in touch with my beach detective friends. I asked for clues about this mysterious piece of beach treasure. **Here is what I found out:**

- Elephantbirds lived on an island, called Madagascar, up until 300 years ago. Sadly, they died out because people hunted them.
- Elephantbirds were three metres tall. They looked a bit like a giant ostrich. They were the heaviest birds ever to have lived. As they were so heavy, they were unable to fly.
- The Elephantbirds used to bury their eggs in the sand. The eggs stayed in the sand for hundreds of years until heavy rains washed them out to sea. The sea then carried them past South Africa all the way to Australia.



**Next time you take a stroll along the beach, keep your eyes open: you never know what you may find!**

6.

Which word invites you to read the newsletter?

Tick **one**.

wonder

latest

welcome

expects

1 mark

2. How often does the newsletter come out?

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1 mark

3. Look at the section: *Can you help?*

**Find and copy one** word that means *not often seen*.

---

1 mark

4. What was found on an Australian beach?

---

1 mark

5. Which **three** facts from the newsletter tell you that the Elephantbird was a large bird?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

3 marks

6. Put these events in order. The first one has been done for you.

The current carried eggs towards South Africa.

Heavy rains washed eggs out to sea.

The Elephantbird buried eggs in sand.

Egg found on Australian beach.

1 mark

7. Write down **one** way of contacting the Beach Detective.

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1 mark

8. Look at the *All change* section.  
Find **three** things which cause change on the beach.

1. 

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2. 

---

3. 

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2 marks

9. The writer makes his job sound like detective work.  
Which **two** of the following words does he use to show this?

Tick **two**.

investigating

transported

clues

journey

unusual

2 marks

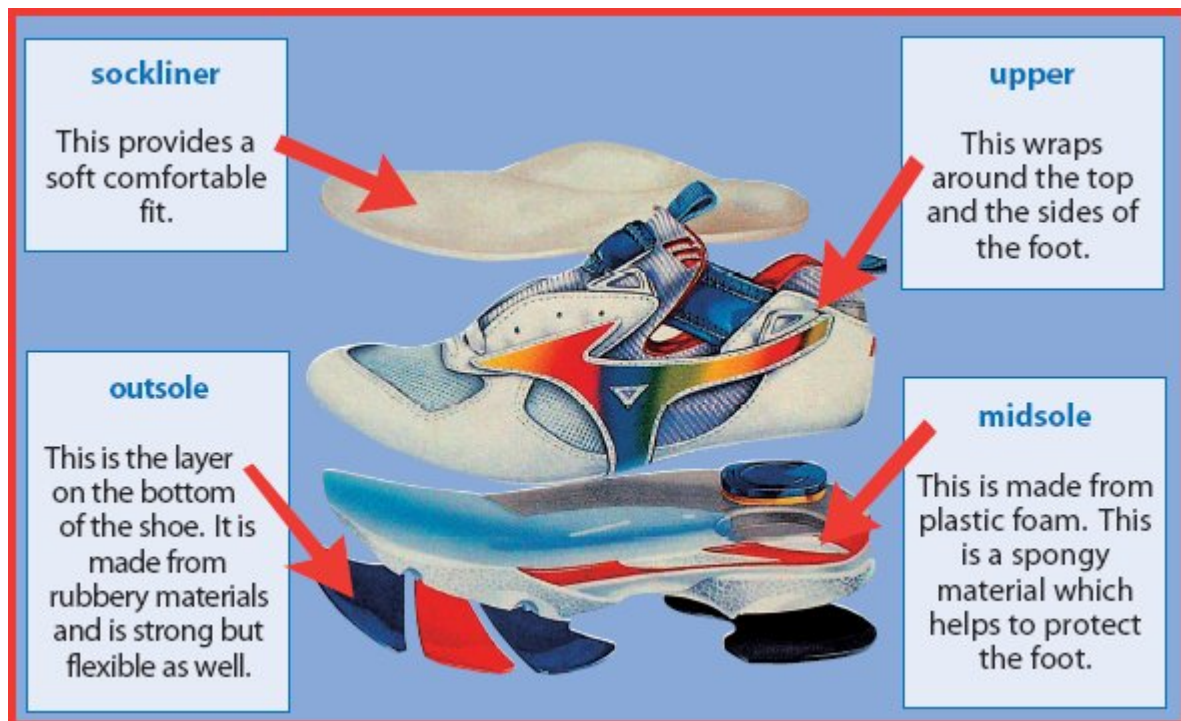
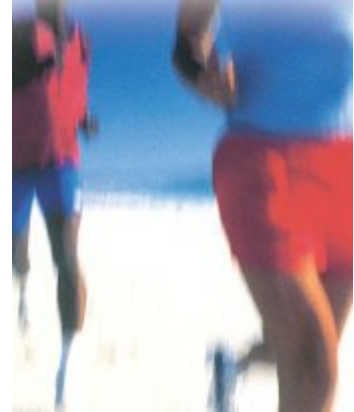
7.

# Feet First

## The Running Shoe

A running shoe is a special type of trainer. It is designed to protect your feet from injuries and help to improve your performance. Running shoes support the foot in the typical running position when the toes are down and the heels are raised.

A good running shoe has four important parts, each with its own job to do:



As well as wearing the correct footwear, a runner has to train regularly in order to improve performance.

# Training for a race

## Warming up and cooling down

It is important to warm-up and cool down every time you exercise. A warm-up gets your body ready for exercise. It helps your blood carry oxygen to your muscles so they are ready to work harder. When muscles are warm, they are more stretchy and tear less easily.



You can warm-up by marching or jogging on the spot and doing stretching exercises. A balanced routine should be developed which covers all the muscles used. You should warm-up for about five to ten minutes until you feel warm and are breathing a bit faster than normal.

To cool down after exercising, do some slower movements until you are breathing normally again. Cooling down helps stop your muscles getting sore. Stretching after exercise can help you to become more supple.



## Training

If you are in good shape and have no injuries, you will be able to race short distances often. It is very important to listen to your body and if you are over-racing – slow down. The English Schools' Athletic Association Award Scheme sets realistic targets for pupils of all abilities. Only short distances should be sprinted at maximum speed.

Year	Distance
3	40 m
4 and 5	60 m
6	80 m

Only Year 5 and 6 children should attempt racing longer distances. The recommended distance is 800 metres, which should be run and not sprinted.

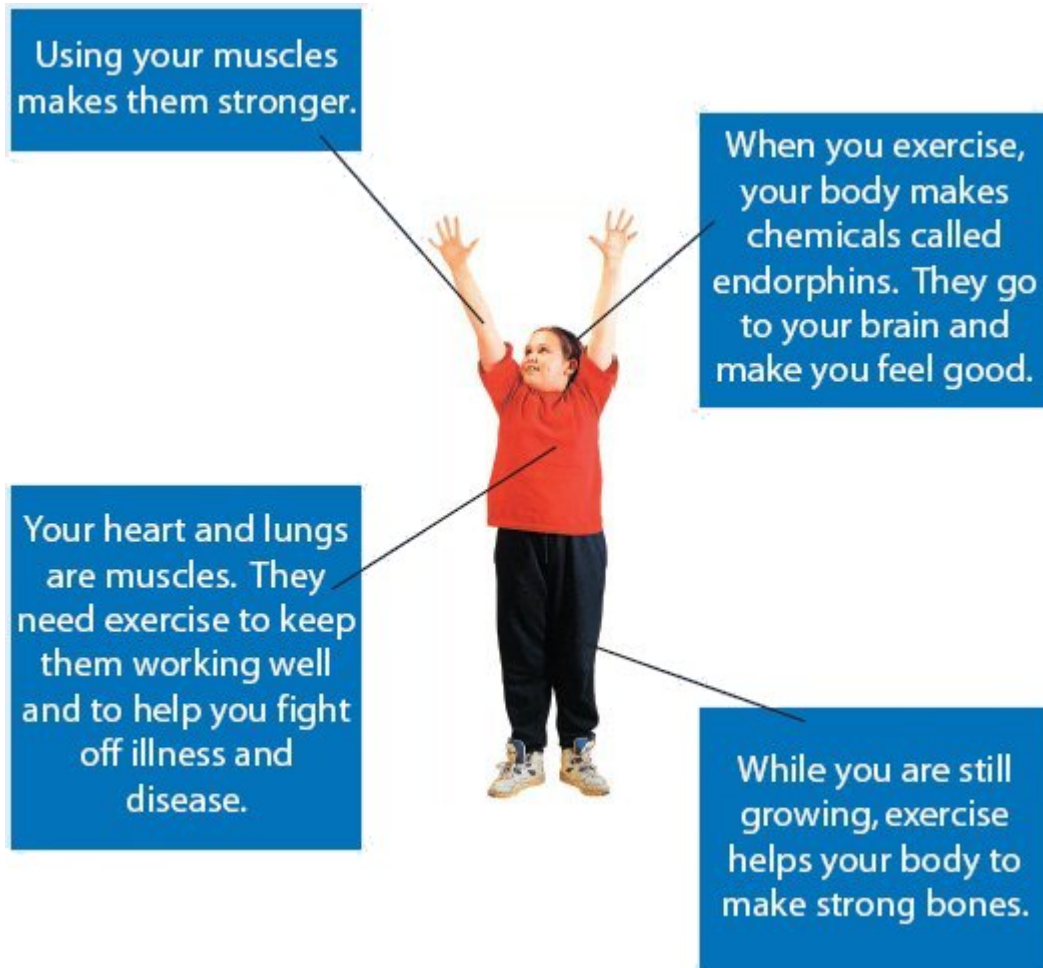
It is important to keep your body safe and comfortable when you are training. Do not train just after a meal or if you are unwell. Do not train so hard that your muscles hurt or you feel dizzy, sick or tired. Always drink plenty of water before and during exercise, especially in hot weather. This is to replace water you lose when you sweat.





# The benefits of exercise

Running is only one way of exercising. Exercise keeps your body strong and fit. Fitness means you have enough energy to do all the things you want to do easily. Your body cannot store fitness so you need to exercise regularly to stay fit.



8.

Circle the correct option to complete the sentence below.

The bottom layer of a running shoe is called the

sockliner.

upper.

midsole.

outsole.

1 mark

2. What makes the outsole strong and flexible?

1 mark

3. Look at the paragraph beginning: *A running shoe is a special...*

**Find and copy one** word meaning *made like that on purpose*.

---

1 mark

4. How can you tell from your breathing if you are warming up **and** cooling down properly?

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2 marks

5. How many metres should a year 4 child sprint at maximum speed?

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1 mark

6. How does the text try to make sure the reader will drink water before and during exercise?

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1 mark

7. Give one of the bad effects of training too hard.

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1 mark

8. How does exercise make you feel good?

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1 mark

9. What does *Feet First* say happens to your muscles when you exercise?  
Write **two** things.

1. \_\_\_\_\_

2. \_\_\_\_\_

2 marks

10. Why should you exercise?  
Find and copy **three** reasons given in *Feet First*.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

3 marks