

Disclaimer

We hope the information on our website and resources is useful. It is your responsibility to note that some ingredients and/or materials used might cause allergic reactions or health problems and to ensure that you are fully aware of the allergies and health conditions of those taking part. If you have any concerns about your own or somebody else's health or wellbeing, always speak to a qualified health professional. Remember, activities listed within the resource should always be supervised by an appropriate adult.



British Science Week:

Innovating for the Future

Make Your Own Paint Experiment

Innovation comes in many shapes and sizes. Become an innovator yourself by carrying out an experiment to make your own paint. When you've finished, don't forget to name your new colour!

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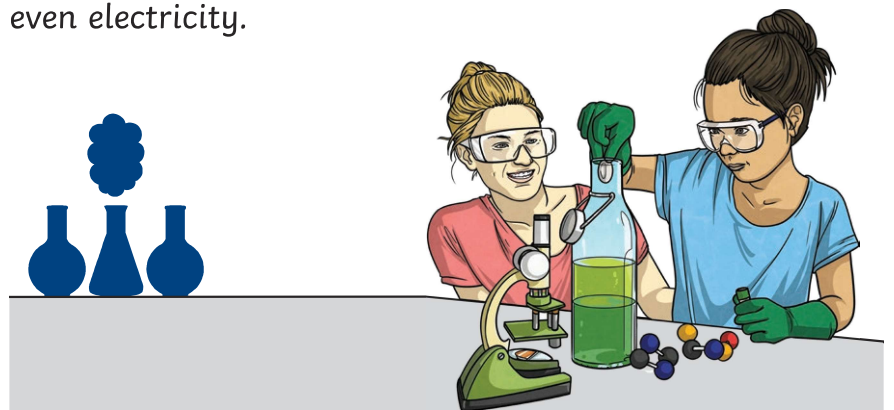
You will need:

- some materials;
- a strong bowl or hard surface;
- something to crush your ingredients with, such as a round pebble;
- a dust mask;
- a shallow bowl.



What Is Science?

Science is all about studying things to see how they work. In a science lesson, you might carry out an investigation. Science has inspired people to invent lots of amazing things. Without science, we would not have cars, computers or even electricity.



1

First, find some colourful materials, such as soil, plants or clay.

Make sure that you have permission to use any materials before taking them and only take things from outside which have already fallen to the ground.

.....

2

Choose one material and put it into your strong bowl or on a hard surface. While wearing your dust mask, crush the material. Stop when you have made a paste or a powder.

.....

3

Then, put the paste or powder into your shallow bowl. Add water to the bowl so that the mixture is completely covered. Stir the mixture and leave it in a sunny window.

What Is British Science Week?

British Science Week is an exciting event that lasts for ten days. Each year, over a million people take part in different activities.

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This year, the theme for British Science Week is 'Innovating for the Future'. Innovating means making changes to something.

This could be by introducing new ways of doing something or by coming up with a new idea.

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Think about how things like computers, cars and aeroplanes have changed in the past 100 years. These changes wouldn't have happened without innovation.



4

When all of the water has been dried up by the sun, you will be left with paint powder. Add a tiny drop of water to the powder and try using it as paint on a piece of paper.

5

Try the experiment again with a different material to see what other colours you can make.

Questions

1. How many days does British Science Week last for? Tick one.

- ☐ seven days
- ☐ eight days
- ☐ nine days
- ☐ ten days

2. Look at the instructions for making your own paint.

Number the instructions from 1-4 to show the order that they should happen in.

- ☐ Choose one material.
- ☐ Try the experiment again.
- ☐ Put the paste or powder into your bowl.
- ☐ Find some colourful materials.

3. What is the theme for this year's British Science Week? Tick one.

- ☐ Everybody Loves Science
- ☐ Innovating for the Future
- ☐ Inventing New Colours
- ☐ Science is Fun

4. Draw **three** lines and complete each sentence.

Innovating means...

many shapes and sizes.

Innovation comes in...

making changes
to something.

Science is all about...

studying things to see
how they work.

5. Look at the paragraph called **What Is Science?**

Find and copy one word which shows that science has made people **want to invent lots of amazing things**.

6. According to the text, how many people take part in different activities for British Science Week each year?

7. Would you like to take part in British Science Week this year? Explain your answer.

Answers

1. How many days does British Science Week last for? Tick one.

- ☐ seven days
- ☐ eight days
- ☐ nine days
- ☒ **ten days**

2. Look at the instructions for making your own paint.

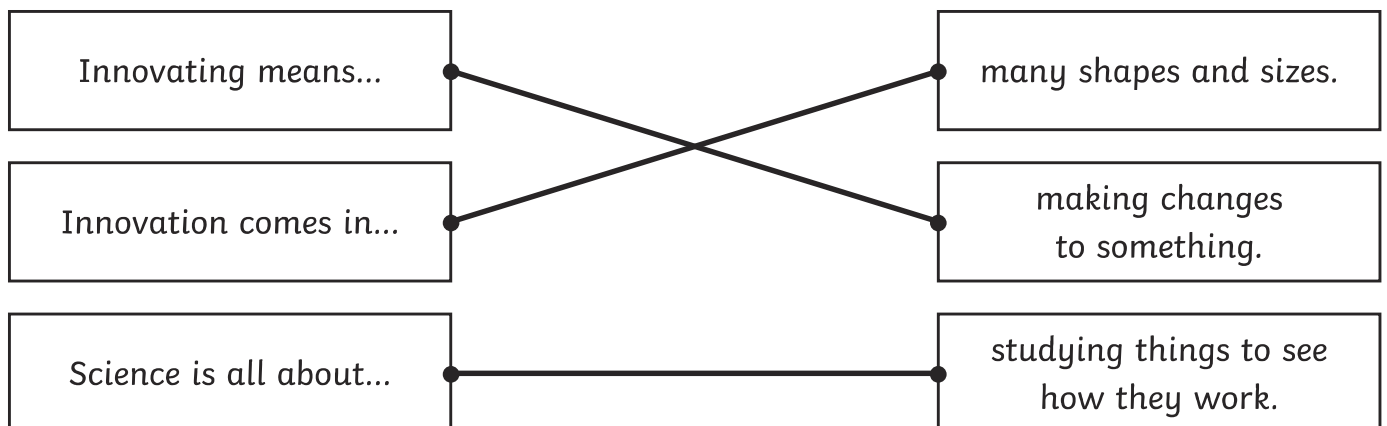
Number the instructions from 1-4 to show the order that they should happen in.

- 2** Choose one material.
- 4** Try the experiment again.
- 3** Put the paste or powder into your bowl.
- 1** Find some colourful materials.

3. What is the theme for this year's British Science Week? Tick one.

- ☐ Everybody Loves Science
- ☒ **Innovating for the Future**
- ☐ Inventing New Colours
- ☐ Science is Fun

4. Draw **three** lines and complete each sentence.



5. Look at the paragraph called **What Is Science?**

Find and copy one word which shows that science has made people **want to invent lots of amazing things**.

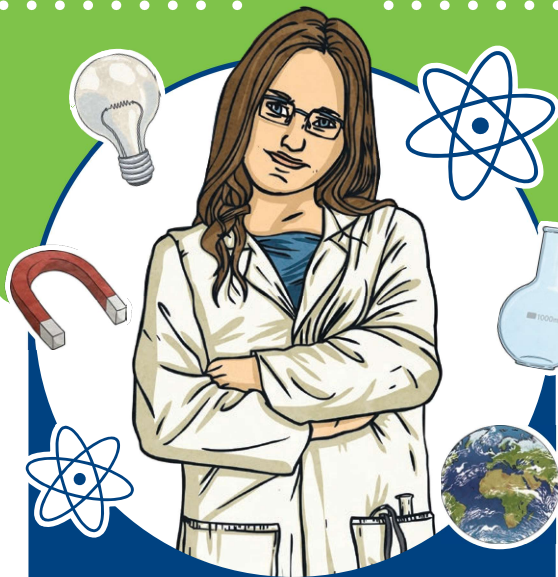
inspired

6. According to the text, how many people take part in different activities for British Science Week each year?

Each year, over a million people take part in different activities for British Science Week.

7. Would you like to take part in British Science Week this year? Explain your answer.

Pupils' own responses, such as: I would like to take part in British Science Week this year because the experiment to make your own paint sounds like a lot of fun and I would like to try it.



British Science Week: Innovating for the Future

What Is British Science Week?

British Science Week is an event which happens once every year. Although it has the word 'week' in its name, the event actually lasts for ten days. British Science Week celebrates science, technology, engineering and maths.

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The theme for British Science Week this year is 'Innovating for the Future'. This theme was chosen because innovation is a part of people, animals, nature and everything else in our everyday lives.

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Innovation means to make changes to something. This could be by introducing new ways of doing something, coming up with new ideas or by making new products.

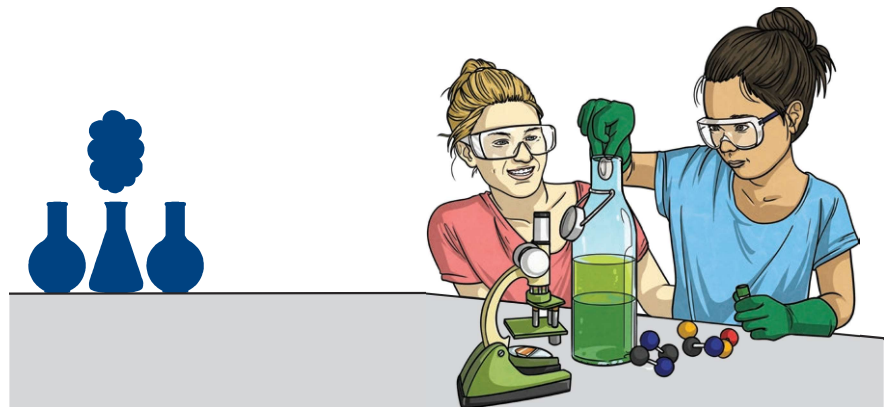


What Is Science?

Science is the study of the world around us with the aim of learning about how things work.

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During science lessons, many children get the chance to explore and investigate. Science can be found all around us and has inspired people to create wonderful inventions and discover new plants and animals. Without science, we would not have access to cars, computers, effective medicines and so much more.



The Classroom of the Future

Lots of innovations come from somebody asking a question, such as 'How can I improve this?' Take a look around your classroom. Pick something that you use every day.

.....



How would you innovate it so that it could be improved for the classroom of the future?

.....

What examples of innovation can you think of?



Become an Innovator

If you fancy becoming an innovator, why not try experimenting by making your own colour of paint? Follow the instructions below to make your own paint.

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You will need:

- some materials;
- a strong bowl or hard surface;
- something to crush your ingredients with, for example a round pebble;
- a dust mask;
- a shallow bowl.



1

To make your new paint, you will need to find some materials, such as soil, plants or clay.

Make sure that you have permission to use any materials before taking them and only take things from outside which have already fallen to the ground.

.....

2

Choose one material and put it into your strong bowl or on a hard surface. While wearing your dust mask, crush the material. Stop when you have made a paste or a powder.

.....

3

Scrape the paste or powder into your shallow bowl. Add water to the bowl so that the mixture is completely covered. Stir the mixture and leave it in direct sunlight.

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4

When all of the water has evaporated, you will be left with paint powder. Add a tiny drop of water to the powder and try using it as paint on a piece of paper. Repeat with different materials to see what different colours you can create.

Questions

1. How often does British Science Week happen? Tick one.

- ☐ once a week
- ☐ once a month
- ☐ once a year
- ☐ once every two years

2. What does **innovation** mean? Tick one.

- ☐ keeping everything the same
- ☐ enjoying science
- ☐ to make changes to something
- ☐ exploring supernovas

3. Look at the section **Become an Innovator**.

Number the instructions from 1-4 to show the order that they should happen in.

- ☐ Stop when you have made a paste or a powder.
- ☐ Stir the mixture and leave it in direct sunlight.
- ☐ Find some materials, such as soil, plants or clay.
- ☐ Add water to the bowl so that the mixture is completely covered.

4. Draw **four** lines and complete each sentence.

Lots of innovations...

the world around us.

The theme for this year's
British Science Week is...

all around us.

Science is the study of...

come from somebody
asking a question.

Science can be found...

'Innovating for
the Future'.

5. Look at the paragraph called **What Is Science?**

Find and copy one word which shows that the medicines work.

6. Name **two** different items that you will need to make your own colour of paint.

• _____

• _____

7. Look at the section **Becoming an Innovator**.

Explain why you think the author has described the type of bowl you will need as **strong**.

8. Summarise what you have learnt about British Science Week using 25 words or fewer.

Answers

1. How often does British Science Week happen? Tick one.

- ☐ once a week
- ☐ once a month
- ☒ **once a year**
- ☐ once every two years

2. What does **innovation** mean? Tick one.

- ☐ keeping everything the same
- ☐ enjoying science
- ☒ **to make changes to something**
- ☐ exploring supernovas

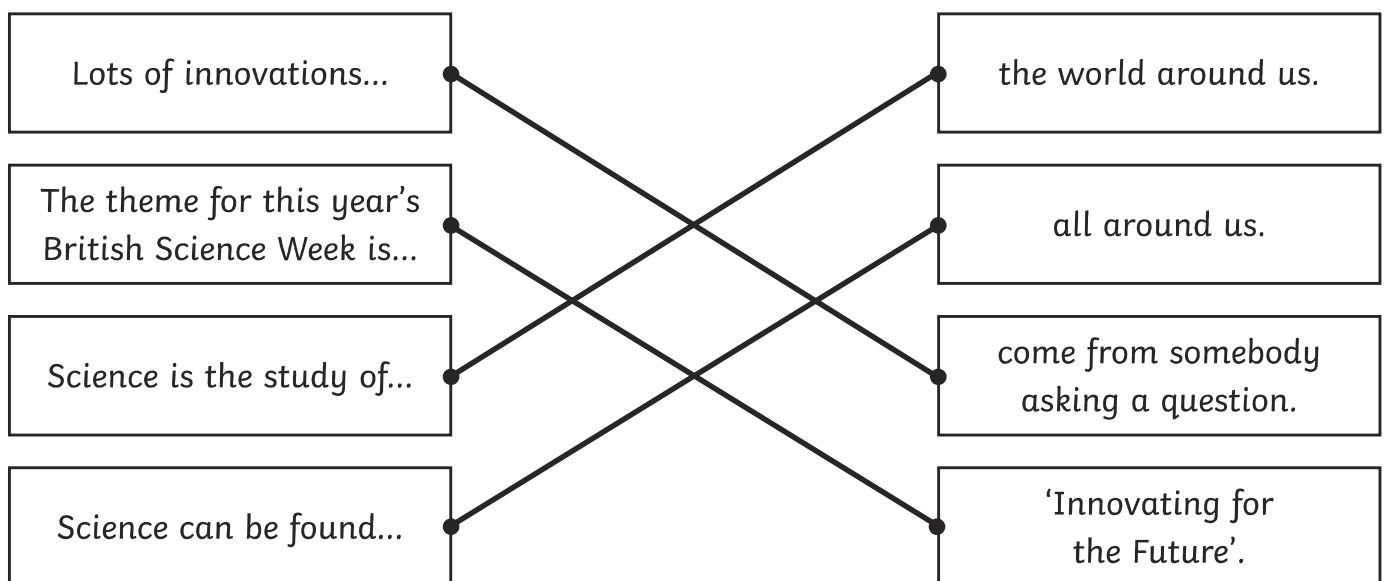
3. Look at the section **Become an Innovator**.

Number the instructions from 1-4 to show the order that they should happen in.

- 2** Stop when you have made a paste or a powder.
- 4** Stir the mixture and leave it in direct sunlight.
- 1** Find some materials, such as soil, plants or clay.
- 3** Add water to the bowl so that the mixture is completely covered.

4. Draw **four** lines and complete each sentence.

Lots of innovations...	the world around us.
The theme for this year's British Science Week is...	all around us.
Science is the study of...	come from somebody asking a question.
Science can be found...	'Innovating for the Future'.



5. Look at the paragraph called **What Is Science?**

Find and copy one word which shows that the medicines work.

effective

6. Name **two** different items that you will need to make your own colour of paint.

Accept any two of the following: some materials; a strong bowl; a hard surface; something to crush your ingredients with; a dust mask; a shallow bowl.

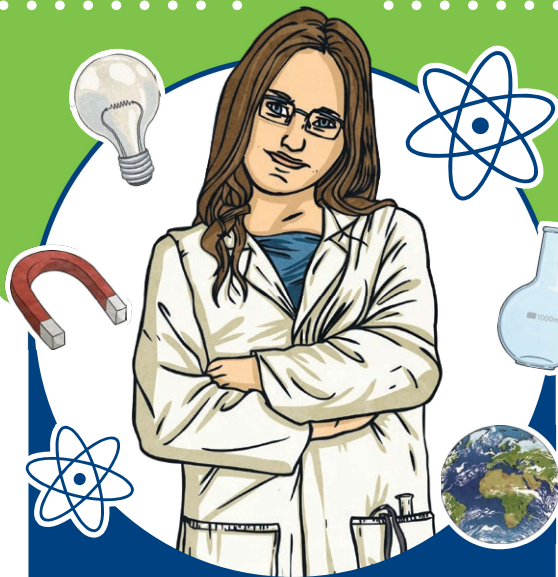
7. Look at the section **Becoming an Innovator.**

Explain why you think the author has described the type of bowl you will need as **strong**.

Pupils' own responses, such as: I think that the author has described the bowl as 'strong' because you will need to use it to crush and grind materials inside. If the bowl was weak, it would just break.

8. Summarise what you have learnt about British Science Week using 25 words or fewer.

Pupils' own responses, such as: British Science Week happens once a year and lasts for ten days. It celebrates science, technology, engineering and maths.



British Science Week: Innovating for the Future

What Is British Science Week?

British Science Week is an annual event which, despite its name, lasts for a total of ten days. British Science Week celebrates science, technology, engineering and maths (STEM). Each year, over a million people take part in different events across the country.

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This year, the theme for British Science Week is 'Innovating for the Future'. This theme was chosen because innovation is all around us. It's a part of people, animals, nature, materials and everything else in our everyday lives. Without innovation, our world would look very different from how it does today.

.....

The word 'innovate' means to make changes to something: especially if it has been around for a while. This could be by introducing new ways of doing something, coming up with new ideas or creating new products.

What Is Science?

Science is the study of the world around us in an attempt to learn about how things work. During science lessons, many children get the opportunity to explore and investigate.

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Evidence of science can be found everywhere you look and has inspired people to create wonderful inventions and discover new plants and animals. Without science, we would not have access to cars, computers, effective medicines and so much more.



Innovating for the Classroom of the Future

Lots of innovations come from somebody asking a question, such as: 'How can I make this better?' or 'Could this be easier?' Take a look around your classroom and pick an item that you use every day. How would you innovate it so that it could be improved for the classroom of the future?



How would you innovate it so that it could be improved for the classroom of the future?

.....

What examples of innovation can you think of?



Become an Innovator Experiment

If you fancy becoming an innovator, why not try experimenting with making your own colour of paint? Simply follow the instructions below. Don't forget to name your new colour when you've finished!

.....

You will need:

- a selection of materials;
- a strong bowl or hard surface;
- something to crush your ingredients with (for example, a round pebble);
- a dust mask;
- a shallow bowl.



1

To make your new paint, you will need to gather some materials. You might find something in the kitchen or in a garden.

Make sure that you have permission to use the materials before taking them and only take things from outside which have already fallen to the ground. Materials, such as berries, plants, soil or clay, work well.

2

Choose one material and put it into your strong bowl or on a hard surface. Then, while wearing your dust mask, grind and crush the material. Keep doing this until you have made a paste or a powder.

3

Scrape the paste or powder into your shallow bowl and add water. Imagine that you need to add enough to make it into a glass of squash (but don't drink it!). Stir the mixture and leave it in direct sunlight until all of the water has evaporated.

4

You will now be left with dried paint powder. Add a tiny drop of water to the powder and try using it as paint on a piece of paper. Repeat the process with other materials to see what different colours you can create.

Questions

1. According to the text, how many people each year take part in British Science Week?
Tick one.

- ☐ one thousand
☐ ten thousand
☐ one million
☐ over one million

2. Draw **four** lines and match each heading to the summary of its contents.

What Is Science?

Information about what
this year's theme is.

What Is British
Science Week?

Asking you to think about how you
would innovate for the future.

Innovating for the
Classroom of the Future

Information about what people
might do during science lessons.

Become an Innovator
Experiment

Instructions on how to make
your own paint.

3. Look at the section **What Is British Science Week?**

Find and copy one word which means the same as 'once a year'.

4. What does the word 'innovate' mean?

5. Fill in the missing words.

Without _____, our world would look very
_____ from how it does today.

6. Using 25 words or fewer, summarise how to make your own paint.

7. What do you think the theme will be for next year's British Science Week?
Explain your answer.

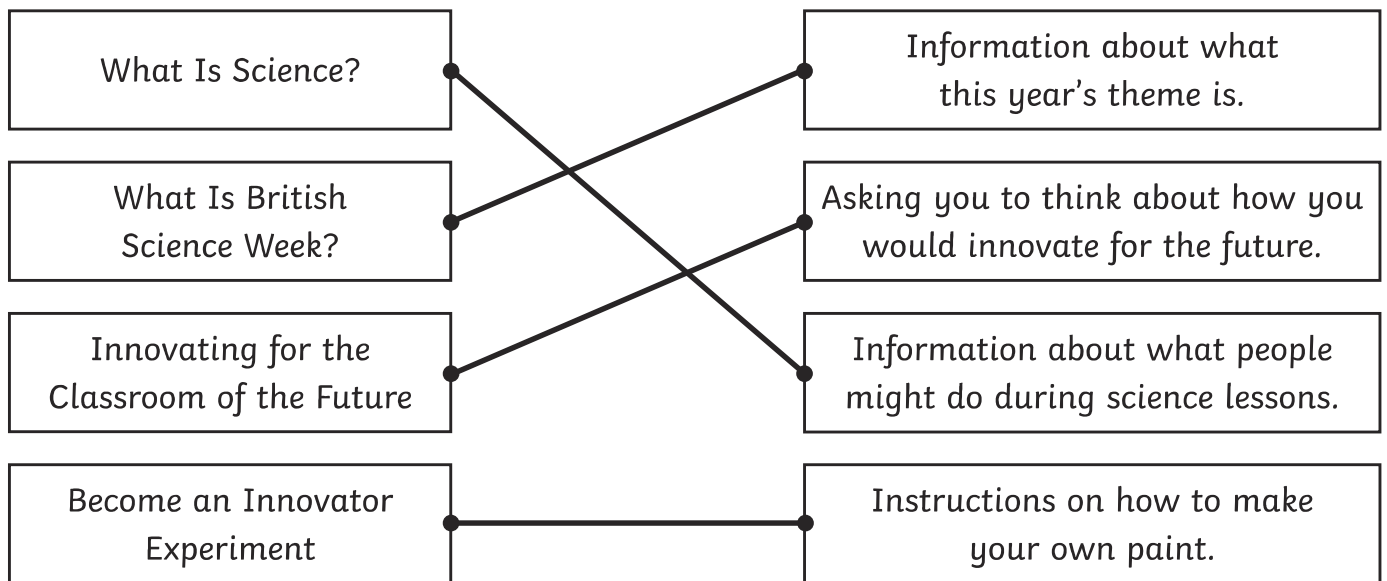
8. Do you think that taking part in British Science Week will encourage children to become scientists when they are older? Fully explain your answer.

Answers

1. According to the text, how many people each year take part in British Science Week?
Tick one.

- ☐ one thousand
☐ ten thousand
☐ one million
☒ **over one million**

2. Draw **four** lines and match each heading to the summary of its contents.



3. Look at the section **What Is British Science Week?**

Find and copy one word which means the same as 'once a year'.

annual

4. What does the word 'innovate' mean?

The word 'innovate' means to make changes to something.

5. Fill in the missing words.

Without **innovation**, our world would look very **different** from how it does today.

6. Using 25 words or fewer, summarise how to make your own paint.

Pupils' own responses, such as: Find a material then crush it. Add water and stir. Leave it in the sun until it makes paint powder. Add water to make paint.

7. What do you think the theme will be for next year's British Science Week?
Explain your answer.

Pupils' own responses, such as: I think that the theme for next year's British Science Week will be 'Our Precious Planet' and it will encourage people to do things that will look after the planet. This is because looking after the planet has been in the news a lot recently and people are becoming more interested in it.

8. Do you think that taking part in British Science Week will encourage children to become scientists when they are older? Fully explain your answer.

Pupils' own responses, such as: I think that taking part in British Science Week will encourage children to become scientists when they are older because they will be inspired by how exciting science can be. Taking part in lots of experiments and activities will inspire them to get a job in science.