

British Science Week: Innovating for the Future

STEM Skills

There are hundreds of exciting jobs available in science, technology, engineering and maths. The British Science Association alongside NUSTEM want to encourage children to consider following a career in one of these areas.

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To demonstrate just how many different people these sorts of jobs are suitable for, they have written a list of characteristics that people might have if they would be well suited for a STEM career. Take a look at the list below.

Which of these characteristics best describes you?

collaborative	:	observant
committed	:	open-minded
communicator	:	organised
creative	:	passionate
curious	:	patient
hard-working	:	resilient
imaginative	:	self-motivated
logical	:	tenacious

Despite its name, British Science Week is a yearly celebration of science, technology, engineering and maths (STEM), which lasts for a total of ten days. The celebration was first held in 1994. It has now become one of the biggest national science celebrations. Each year, over one million people of all ages take part in fun activities across the UK.

The event is organised by the British Science Association, who, with funding from UKRI (UK Research and Innovation), provide grants to schools and communities. These grants help to support people in areas that might not normally have access to scientific projects. It is hoped that this will spark an interest in science among the next generation, which may encourage them to follow a career in science.

Annual Theme

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.



What do you think of when you hear the word 'innovation'?

You might think of inventions or adaptations that have helped to make things easier for people or animals. Think about people that you've spoken to recently or stories that you've heard about on the news; did they mention any innovative ideas? Without innovation of any kind happening all the time, our world would look very different today.

How to Innovate with Colour

Innovation can come in many shapes and forms. Become an innovator yourself by following the instructions below and creating your own colour of paint.

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You will need:

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



1

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

Make sure that you have permission to use the materials before taking them. If you are gathering natural materials, only take things which have already fallen to the ground. Materials with a strong colour, such as petals, berries, plants, soil, sand or clay, are a good start.

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 on a flat surface in the 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 other colours you can create.

Questions

1. In what year was British Science Week first held? Tick one.

- ☐ 1949
- ☐ 1994
- ☐ 2020
- ☐ 2021

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

British Science Week is...

exciting jobs available in science,
technology, engineering and maths.

There are hundreds of...

many shapes and forms.

This year, the theme is...

a yearly celebration of science,
technology, engineering and maths.

Innovation can come in...

'Innovating for the Future'.

3. Look at the set of instructions.

Find and copy one word which means the same as 'collecting'.

4. Name **three** characteristics that you might demonstrate if you would be well suited to a STEM career.

- _____
- _____
- _____

5. In which section would you find information on how to make your own colour of paint?

6. **Without innovation of any kind happening all the time, our world would look very different today.**

Explain one way in which our world might look different without innovation.

7. Using 30 words or fewer, summarise how to make your own colour of paint.

8. Do you think that people will be encouraged to take part in British Science Week after reading this text? Fully explain your answer.

9. What evidence can you find that the author likes British Science Week?

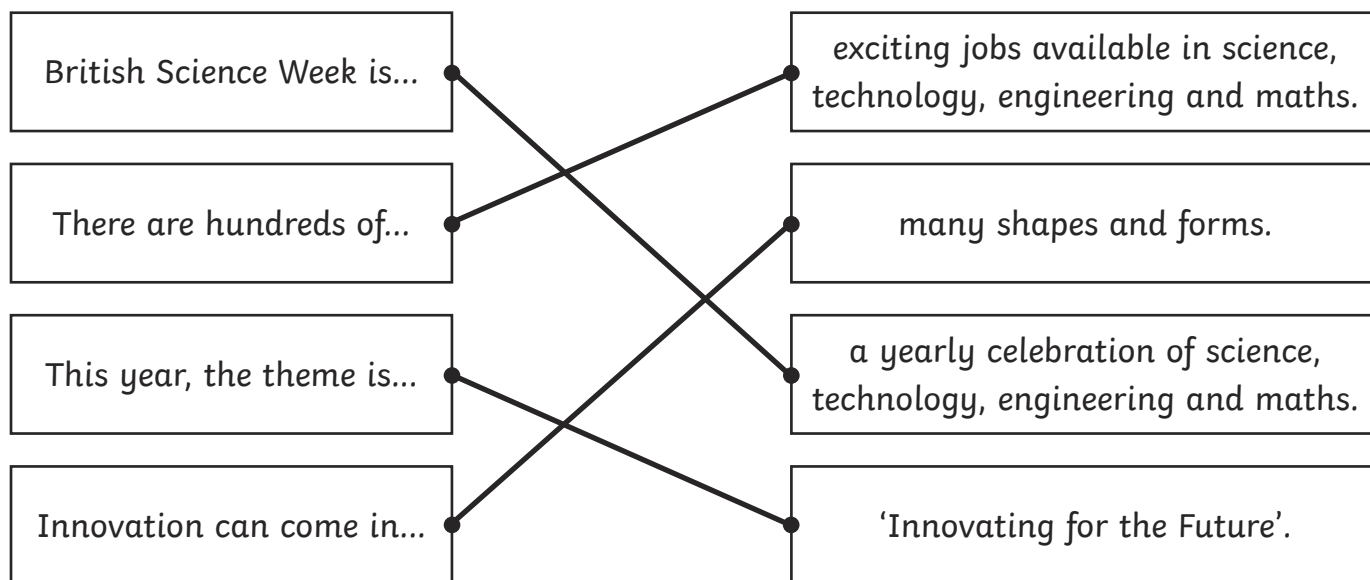
Explain your answer.

Answers

1. In what year was British Science Week first held? Tick one.

- ☐ 1949
☒ **1994**
☐ 2020
☐ 2021

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



3. Look at the set of instructions.

Find and copy one word which means the same as 'collecting'.

gathering

4. Name **three** characteristics that you might demonstrate if you would be well suited to a STEM career.

Accept any three of the following: collaborative; committed; communicator; creative; curious; hard-working; imaginative; logical; observant; open-minded; organised; passionate; patient; resilient; self-motivated; tenacious.

5. In which section would you find information on how to make your own colour of paint?

You would find information on how to make your own colour of paint in the section 'How to Innovate with Colour'.

6. **Without innovation of any kind happening all the time, our world would look very different today.**

Explain one way in which our world might look different without innovation.

Pupils' own responses, such as: Without innovation, we wouldn't have any technology and we would still be living in caves and cooking using fire.

7. Using 30 words or fewer, summarise how to make your own colour of paint.

Pupils' own responses, such as: Find a colourful material and crush it into a powder or paste. Add water and let it dry. Then, add a small amount of water and use it as paint.

8. Do you think that people will be encouraged to take part in British Science Week after reading this text? Fully explain your answer.

Pupils' own responses, such as: I think that people will be encouraged to take part in British Science Week because the instructions for how to make your own paint are really easy to follow and can be carried out as part of the week.

9. What evidence can you find that the author likes British Science Week?

Explain your answer.

Pupils' own responses, such as: Throughout the text, the author uses lots of positive language to explain British Science Week, such as: 'spark an interest' and 'hundreds of exciting jobs'. This makes it seem as though they like British Science Week and feel as though it is an event that is worth writing about.