

British Science Week: Our Diverse Planet

British Science Week is a celebration of science, technology, engineering and maths. It takes place every year and lasts for a total of ten days. It was first held in 1994 and was called Britain's National Science Week.

British Science Week is one of the biggest science celebrations in the UK. Each year, over one million people take part in enjoyable and challenging activities.

The event is led by the British Science Association and receives funding from the UKRI, which stands for UK Research and Innovation. This funding helps schools and communities to run their own activities for British Science Week. By supporting a variety of events, it is hoped that children will be excited by science. It is also hoped that this will inspire children to get a job in science when they are older.

This Year's Theme

Each year, British Science Week follows a theme. This year, the theme is 'Our **Diverse** Planet'. British Science Week say that they have chosen this theme because diversity is a part of everything that is found in children's everyday lives. This includes people, materials, towns, cities and nature.

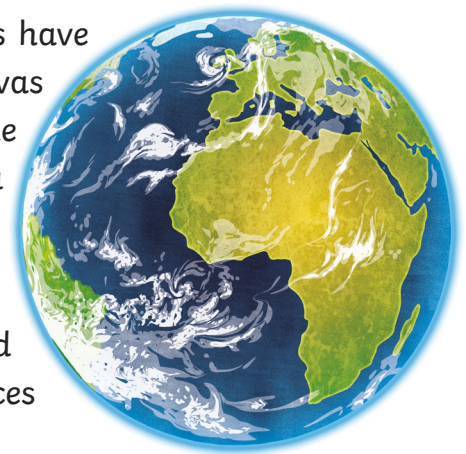
The British Science Association want children to think about how the things around them are different from one another. For their theme 'Our Diverse Planet', the British Science Association has focused on areas such as diverse places and diverse jobs.

Diverse Places

This year marks the 200th anniversary of the first recorded sighting of Antarctica. The **continent** of Antarctica is an exciting destination for many explorers and scientists who want to learn more about this incredible place. Antarctica is home to a wide variety of animals including penguins, seals and albatrosses. These animals have all adapted to survive in the harsh, wintry environment.

To protect such an amazing place, over 50 countries have signed something called the Antarctic Treaty. This was written in 1959 and aims to protect Antarctica. The treaty says many important things, such as Antarctica will be dedicated to scientific research.

People who spend a large amount of time on the continent are mostly scientists, researchers and explorers. These people often live in purpose-built places called research stations.



Diverse Jobs

As it is dedicated to scientific research, Antarctica is very important and people who work there have many different jobs. These are some of the jobs that are available in Antarctica.

| | |
|--|--|
| Aircraft Engineers | These people look after all aircraft flown in Antarctica. |
| Atmospheric Scientists | These people use lots of scientific tools to measure changes to the atmosphere . |
| Marine Biologists | These scientists study marine wildlife and look at things such as their diet and their habitat. |
| Mechanical and Electrical Engineers | These people help with projects such as creating bridges which can weigh penguins! |

Working for a long time in a place which is so cut off from the rest of the world can be very challenging. Temperatures regularly reach well below freezing so stations need to be well-equipped.

Designing a Research Station

Imagine that you are asked to design a research station which is going to be built in Antarctica. What do you think are the most important things for you to include? Think carefully about:

- heating;
- the rooms which are needed;
- the materials which are needed;
- what people will do when they're not working.



Glossary

atmosphere: The gases which surround Earth or another planet.

continent: A large, continuous expanse of land on Earth. For example, Europe, Asia or Africa.

diverse: Showing lots of variety or being very different.

marine: Related to or found in the sea.

Questions

1. Which of the following is **not** celebrated during British Science Week? Tick one.

- science
- maths
- poetry
- engineering

2. Which of these people would be **most likely** to study animals who live in the sea? Tick one.

- an aircraft engineer
- an atmospheric scientist
- a marine biologist
- an electrical engineer

3. What did British Science Week used to be called?

4. Fill in the gaps to complete the sentence.

Mechanical and electrical engineers can support with _____ such as making _____ to weigh penguins!

5. How many years has it been since the first recorded sighting of Antarctica?

6. After reading the text, would you like to work in Antarctica? Explain your answer.

7. Do you think that every country should be made to sign the Antarctic Treaty? Explain your answer.

8. Imagine that you are organising British Science Week for 2021. What theme would you choose? Explain your answer.

Answers

1. Which of the following is **not** celebrated during British Science Week? Tick one.

- science
- maths
- poetry**
- engineering

2. Which of these people would be **most likely** to study animals who live in the sea? Tick one.

- an aircraft engineer
- an atmospheric scientist
- a marine biologist**
- an electrical engineer

3. What did British Science Week used to be called?

British Science Week used to be called Britain's National Science Week.

4. Fill in the gaps to complete the sentence.

Mechanical and electrical engineers can support with **projects/jobs** such as making **bridges** to weigh penguins!

5. How many years has it been since the first recorded sighting of Antarctica?

It has been 200 years since the first recorded sighting of Antarctica.

6. After reading the text, would you like to work in Antarctica? Explain your answer.

Pupils' own responses, such as: I would like to work in Antarctica because it sounds like an amazing place to be a scientist and I would like to be a scientist. I also don't mind the cold which would be really useful for working there.

7. Do you think that every country should be made to sign the Antarctic Treaty? Explain your answer.

Pupils' own responses, such as: I think that every country should be made to sign the Antarctic Treaty because it protects an amazing place from being spoilt and encourages people to take part in important research.

8. Imagine that you are organising British Science Week for 2021. What theme would you choose? Explain your answer.

Pupils' own responses, such as: If I was organising the next British Science Week, I would choose the theme of Climate Change. This is because it is a really important topic which lots of people are interested in. It will also raise awareness of how people can help.

British Science Week: Our Diverse Planet

British Science Week is an annual celebration of science, technology, engineering and maths (STEM), which lasts for a total of ten days. The celebration was first held in 1994 and was named Britain's National Science Week.

Since its beginning over 25 years ago, British Science Week has become one of the biggest national science celebrations. Each year, over one million people of all ages take part in enjoyable, challenging and engaging activities across the UK.

The event is led by the British Science Association and receives funding from the UKRI (UK Research and Innovation). This funding helps by providing grants to schools and communities who are less likely to have access to scientific projects. By supporting a variety of events across the nation, it is hoped that an interest in science will be sparked amongst the next generation, which may then encourage them to follow a career in science.

Annual Theme

Each year, British Science Week follows a theme which runs throughout all of their educational activities. The theme for this year's British Science Week is 'Our Diverse Planet'. This theme was chosen because diversity is a part of people, materials, nature or anything else found in children's everyday lives.

The British Science Association want children to think about the diversity in the world around them, including the diversity of STEM subjects and the variation in people's tastes and interests. While diversity can appear anywhere, the British Science Association has focused on subjects such as diverse places and diverse jobs.

Diverse Places

This year, British Science Week runs alongside an important scientific milestone: the 200th anniversary of the first recorded sighting of Antarctica. Since it was first spotted in January 1820, the continent of Antarctica has been the destination for many explorers and scientists who want to learn more about this incredible place. Antarctica is a diverse continent with a wide variety of animals including penguins, seals and albatrosses. These animals have all adapted to survive in the harsh, wintry environment.

To protect such an amazing and unspoilt place, over 50 countries have signed something called the Antarctic Treaty. This was written in 1959 and, alongside other things, states that Antarctica will only be used for peaceful purposes and that the continent will be dedicated to scientific research.



Although Antarctica attracts many tourists each year, the majority of people who spend prolonged periods of time on the continent are scientists, researchers and explorers. Most of the people who stay on the continent for a long time live in purpose-built places called research stations.

Diverse Jobs

As it is an area which is entirely dedicated to scientific research, Antarctica is hugely important and presents a huge diversity of job opportunities, a few of which are listed below.

| | |
|--|---|
| Aircraft Engineers | These people are responsible for maintaining all aircraft used for research in Antarctica. |
| Atmospheric Scientists | These people use an exciting range of scientific tools to measure and observe changes to the atmosphere. |
| Marine Biologists | These scientists study all areas of marine wildlife including their diet, habitats and predators. |
| Mechanical and Electrical Engineers | These people provide support to scientific investigations by helping with projects, such as developing new instruments to measure the weather and even creating bridges which can weigh penguins! |

Working in such a remote location brings many challenges, especially for those people who spend an extended amount of time working in Antarctica. Temperatures average -60°C at the highest points of the continent so research stations need to be well-equipped to deal with the challenges that the continent brings.

Designing a Research Station

Imagine that you are asked to design the latest research station to be built in Antarctica. What do you think are the most important things for you to consider in your design? Think carefully about:

- heating;
- the rooms which are needed;
- the materials which are needed;
- what people will do when they're not working.



Questions

1. Which of the following words is **not** represented by the acronym STEM? Tick one.

- science
- technology
- engineering
- measurements

2. Draw four lines and complete each sentence.

Aircraft engineers...

might study the diet of marine wildlife.

Atmospheric scientists...

have created a bridge which weighs penguins.

Marine biologists...

are responsible for maintaining aircraft.

Mechanical engineers...

use tools to measure and observe changes.

3. Look at the paragraph beginning **This year, British Science...**

Find and copy one word which means the same as **event**.

4. Name one thing that the Antarctic Treaty states.

5. Why might you need to consider heating when designing a research station?

6. Out of the four jobs listed in the text, which would you **most like** to have? Explain your answer.

7. How do you think that the author has tried to inspire people to become scientists? Explain your answer.

8. **Antarctica attracts many tourists each year.**

Why do you think that people want to visit Antarctica? Explain your answer.

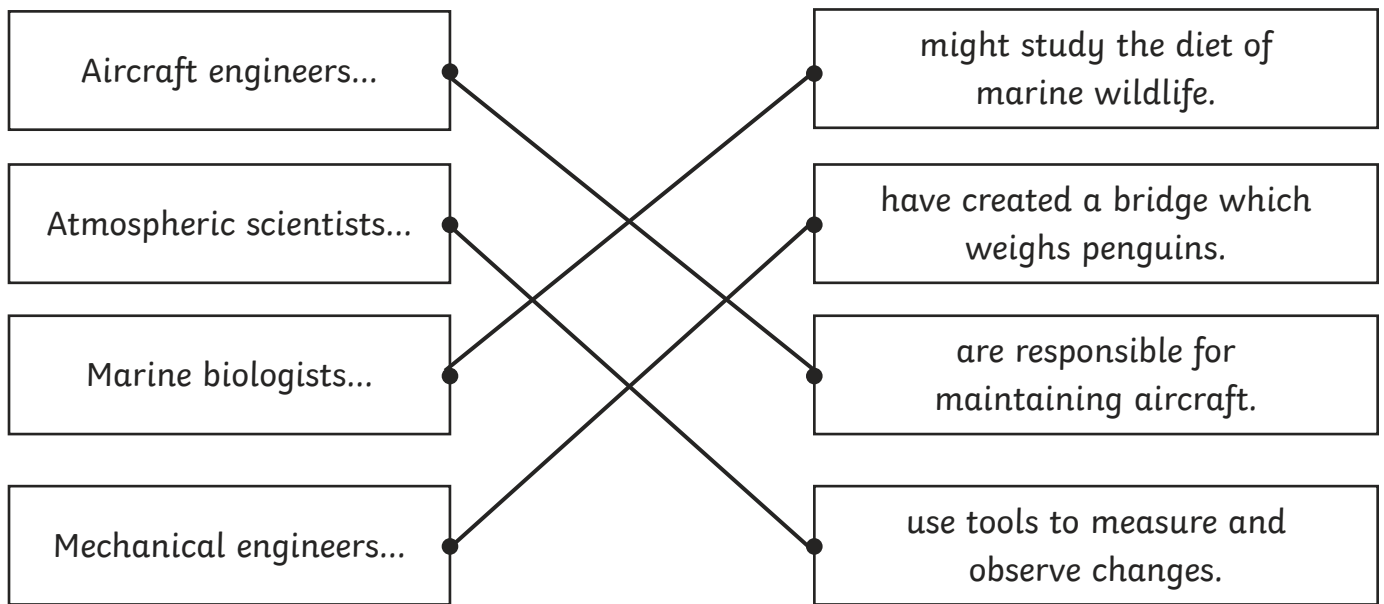
9. Do you think that the theme 'Our Diverse Planet' will make people excited about science? Fully explain your answer.

Answers

1. Which of the following words is **not** represented by the acronym STEM? Tick one.

- science
- technology
- engineering
- measurements**

2. Draw four lines and complete each sentence.



3. Look at the paragraph beginning **This year, British Science...**

Find and copy one word which means the same as **event**.

milestone

4. Name one thing that the Antarctic Treaty states.

The Antarctic Treaty states that Antarctica will only be used for peaceful purposes/the continent will be dedicated to scientific research.

5. Why might you need to consider heating when designing a research station?

You might need to consider heating when designing a research station because the average temperature at the highest point is -60°C which is very cold.

6. Out of the four jobs listed in the text, which would you **most like** to have? Explain your answer.

Pupils' own responses, such as: Out of the four jobs, I would most like to be a marine biologist because I really enjoy learning about new animals and I would really enjoy studying animals that not many other people have seen.

7. How do you think that the author has tried to inspire people to become scientists? Explain your answer.

Pupils' own responses, such as: I think that the author has tried to inspire people by making the jobs sound really exciting. For example, they mention the bridge that weighs penguins which not many people would have thought about before as being part of a job.

8. **Antarctica attracts many tourists each year.**

Why do you think that people want to visit Antarctica? Explain your answer.

Pupils' own responses, such as: I think that people want to visit Antarctica because it is an entire continent which is dedicated to science and research which is very interesting. I think that people might also enjoy being so far away from anything else and they will like seeing the different animals.

9. Do you think that the theme 'Our Diverse Planet' will make people excited about science? Fully explain your answer.

Pupils' own responses, such as: Yes, I think that the theme 'Our Diverse Planet' will make people excited about science because it gets you thinking about all of the different things that being a scientist could involve. Before reading this, people might not have known that it's a scientist's job to investigate wildlife in the sea around Antarctica.

British Science Week: Our Diverse Planet

Contrary to what its name might suggest, British Science Week is an annual celebration of science, technology, engineering and maths (STEM), which spans a total of ten days. The celebration was first held under the title of Britain's National Science Week in 1994.

Since its inaugural event over 25 years ago, British Science Week has become one of the biggest national science celebrations. Each year, over one million people of all ages take part in enjoyable, challenging and engaging activities across the UK.

The event is coordinated by the British Science Association, who, with funding from the UKRI (UK Research and Innovation), provide grants to schools and communities. These grants focus specifically on areas where people are less likely to have access to scientific projects. By supporting a variety of events across the nation, it is hoped that an interest in science will be sparked amongst the next generation, which may encourage them to pursue a scientific career.

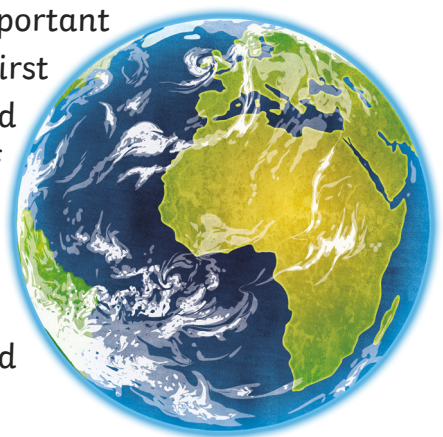
Annual Theme

Each year, British Science Week generates a specific theme which spans across all of their educational resources. The theme for this year's British Science Week is 'Our Diverse Planet'. This theme was chosen because diversity is a part of people, materials, nature or anything else found in children's everyday lives.

Diversity is everywhere and the British Science Association want children to think about the diversity in the world around them, including the diversity of STEM subjects, the ways the towns and cities are built and the variation in people's tastes and interests. While diversity encompasses everything, the British Science Association has split their educational resources into different sections which include diverse places and diverse jobs.

Diverse Places

This year, British Science Week coincides with an important scientific milestone: the 200th anniversary of the first recorded sighting of Antarctica. Since it was first sighted by Edward Bransfield in January 1820, the continent of Antarctica has been the destination for many explorers and scientists who want to discover more about this incredible place. Antarctica is a diverse continent with a wide variety of animals including penguins, seals and



albatrosses; all of whom have adapted to survive in the harsh, wintry environment. Since 1959, over 50 countries have signed the Antarctic Treaty which protects Antarctica from being exploited for its wildlife or natural reserves. Sections of the treaty state that Antarctica will only be used for peaceful purposes and that the continent will be dedicated to scientific research.

As a result of its isolation from the rest of the world, Antarctica does not have an indigenous population. Although it attracts many tourists each year, the majority of people who spend a prolonged amount of time on the continent is largely made up of scientists, researchers and explorers. It is estimated that the population of Antarctica is between 1,000 and 5,000 people at any one time. The majority of people who stay on the continent for longer periods are stationed at research stations.

Diverse Jobs

Being an area which is dedicated solely to scientific research, Antarctica is hugely important and boasts a huge diversity of job opportunities. Below is a small selection of the jobs currently available in Antarctica.

| | |
|--|---|
| Aircraft Engineers | These people are responsible for maintaining the aircraft used for research in Antarctica. |
| Atmospheric Scientists | These people use an exciting range of scientific tools to measure and observe changes to the atmosphere. |
| Marine Biologists | These scientists study all aspects of marine wildlife including their diet, habitats and predators. |
| Mechanical and Electrical Engineers | These people provide support to scientific investigations by aiding projects, such as developing new instruments to measure the weather and even creating bridges which can weigh penguins! |

Working in such a remote location brings many challenges, especially for those people who spend an extended amount of time working in Antarctica. With temperatures averaging -60°C at the highest points, research stations need to be well-equipped to deal with the challenges that the continent brings.

Designing a Research Station

Imagine that you are tasked with designing the latest research station to be built in Antarctica. What do you think are the most important elements for you to consider in your design? Think carefully about aspects, such as:

- heating;
- the rooms which are needed;
- the materials which are needed;
- what people will do when they're not working.



Questions

1. Draw four lines and complete each sentence.

Edward Bransfield first spotted Antarctica...

a part of everything.

Diversity is...

in 1994.

British Science Week started...

in 1820.

Antarctica is...

a continent.

2. So far, how many countries have signed the Antarctic Treaty? Tick one.

- exactly 50
- under 50
- over 50
- over 60

3. Why does the author start the text with the phrase **Contrary to what its name might suggest...?**

4. Look at the paragraph beginning **As a result of its isolation...**
Find and copy one word which means the same as **native**.

5. What job is someone most likely to have if they study the diet of fish off the shore of Antarctica?

6. Do you think that every school should celebrate British Science Week? Fully explain your answer.

7. Do you think that this text will inspire people to pursue a career in science? Tick one.

 yes no

Fully explain your answer.

8. Some countries have not yet signed the Antarctic Treaty.

Argue that all countries **should** be made to sign the Antarctic Treaty.

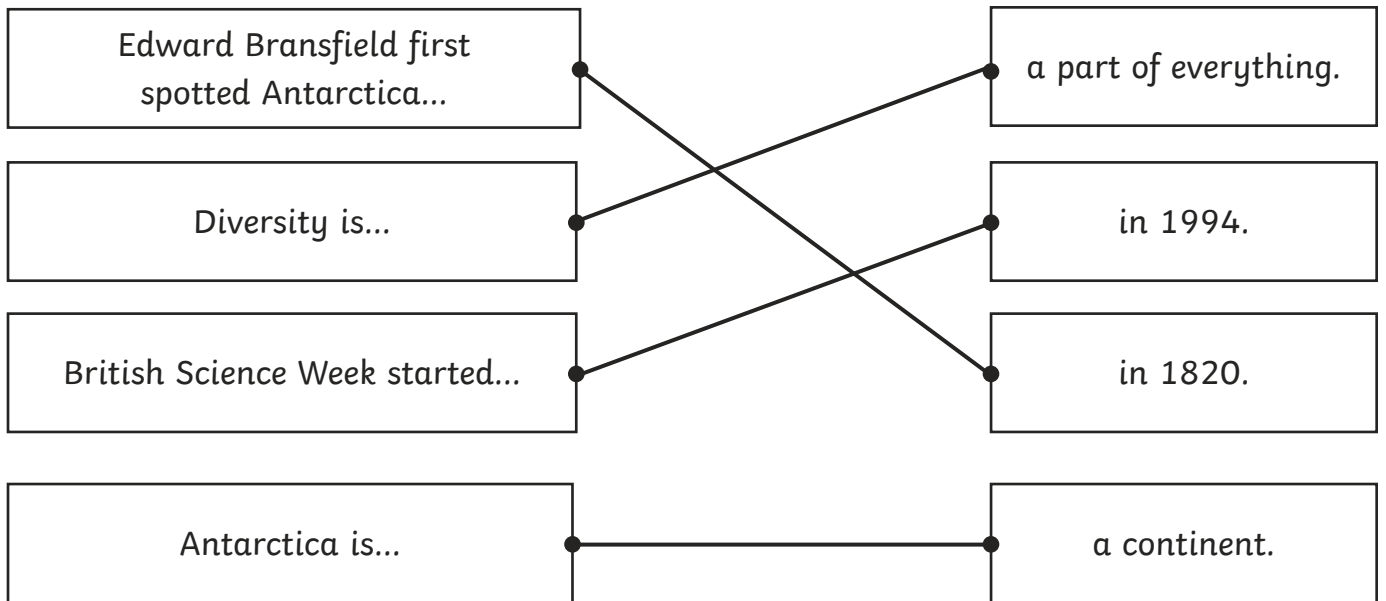
9. What impression does the author give you of working in Antarctica? Explain your answer fully using evidence from the text.

10. **...research stations need to be well-equipped to deal with the challenges that the continent brings.**

Describe some of the challenges that this sentence could be referring to.

Answers

1. Draw four lines and complete each sentence.



2. So far, how many countries have signed the Antarctic Treaty? Tick one.

- exactly 50
- under 50
- over 50**
- over 60

3. Why does the author start the text with the phrase **Contrary to what its name might suggest...?**

The author starts the text with that phrase because British Science Week is actually ten days long.

4. Look at the paragraph beginning **As a result of its isolation...**

Find and copy one word which means the same as **native**.

indigenous

5. What job is someone most likely to have if they study the diet of fish off the shore of Antarctica?

They are most likely to be a marine biologist.

6. Do you think that every school should celebrate British Science Week? Fully explain your answer.

Pupils' own responses, such as: I think that every school should celebrate British Science Week because it is an important event about raising awareness and exciting people to pursue a career which can help to improve something in the world.

7. Do you think that this text will inspire people to pursue a career in science? Tick one.

yes no

Accept either a yes or no response provided that a full explanation is given below.

Fully explain your answer.

Pupils' own responses, such as: Yes, I think that this text will inspire people to pursue a career in science because it describes the different jobs in really exciting way. For example, it tells you that mechanical and electrical engineers have designed a bridge which can weigh penguins and this might inspire someone to follow the same career.

8. Some countries have not yet signed the Antarctic Treaty.

Argue that all countries **should** be made to sign the Antarctic Treaty.

Pupils' own responses, such as: Countries should be made to sign the Antarctic Treaty because it ensures that Antarctica remains protected so that people can carry out important research. If countries don't sign the treaty, people might think that they don't care about looking after the continent.

9. What impression does the author give you of working in Antarctica? Explain your answer fully using evidence from the text.

Pupils' own responses, such as: The author gives the impression that working in Antarctica is amazing and exciting. They do this by using words such as 'incredible' and 'important'. The author also says that Antarctica 'boasts a huge diversity of job opportunities'. This gives the impression that the jobs in Antarctica are better than anywhere else and therefore worth boasting about.

10. **...research stations need to be well-equipped to deal with the challenges that the continent brings.**

Describe some of the challenges that this sentence could be referring to.

Pupils' own responses, such as: This sentence could be referring to the challenge of temperature because Antarctica is incredibly cold and humans have not adapted to live in such a harsh environment. Another challenge is that Antarctica is isolated from the rest of the world so it might be difficult to get supplies such as food and medicine delivered.