

SCIENCE AT WORK

A chance to meet the engineer Isambard Kingdom Brunel

WHO WAS ISAMBARD KINGDOM BRUNEL? WHAT DID HE DO?

Brunel is regarded by many as the greatest civil engineer of all time. During the industrial revolution, he was responsible for the design of railway lines and stations, bridges, tunnels, viaducts, docks and huge ships. One of his great achievements is the Great Western Railway which needed 4,000 men to construct the longest tunnel that had ever been attempted. At Bath station they had to build a 73-arch viaduct, and over the 13 miles between Bath and Bristol they had to build another viaduct, four bridges and seven tunnels!

You could have a look at this [Brunel fact sheet](#) and try this [challenge to make a boat](#). You might also like the [drawings Brunel's father did](#) when he designed the Thames Tunnel.



The propeller on the SS Great Britain

- * What do you think it is made of? How big is it?
- * What is the other big object next to the propeller?
- * What other ships did he design?
- * What voyages did they make?
- * What powered the trains that ran on the railways designed by Brunel? What powered the ships he designed?

Two bridges designed by Brunel

- * Where in the UK would you find these bridges?
- * How do they support the weight of cars and trains?
- * When were they built? **HINT!** Can you find a date in one of the pictures?



FIND OUT MORE

Find out more about the magnificent SS Great Britain. What was special about this ship?

How about making a cardboard chair that can support your weight? This activity is in the challenge card pack. It is free to download and has lots more challenges to try!

Important note: The Primary Science Teaching Trust is not liable for the actions or activities of any person who uses the information in this resource or in any of the suggested further resources. The Primary Science Teaching Trust assumes no liability with regards to injuries or damage to property that may occur as a result of using the information on this sheet. An adult must take full responsibility for completing the online form.



“The time is not far off when we shall be able to take our coffee and write while going noiselessly and smoothly at 45 miles per hour.”

(Brunel in 1831)

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WHAT TO DO

1 FIND OUT ABOUT ISAMBARD KINGDOM BRUNEL

On the other page, you will find some information and ideas to get you thinking. What else would you like to know? What questions could you ask him?

Write your questions here

2 DRAW A PICTURE

What about a bridge, or a ship, or a railway station, or a portrait of him?

3 SEND IN A QUESTION AND YOUR DRAWING

- * Choose your **favourite** question that you would like to ask Brunel.
- * Ask an adult to **complete the form** online with your first name, city or region where you live, and your question for Brunel. You need to do this by **3pm on Thursday 21st May**.
- * If you have drawn a picture, please send this in as well! You can take a photo of it and upload it with the form.

4 WATCH THE VIDEO THE WEEK AFTER NEXT

- * The video of Isambard Kingdom Brunel will be available to watch from 11.00 on Tuesday 2nd June.
- * Ask an adult to **find the video** for you.
- * You might see your picture, or hear Brunel answering your question!

[CLICK HERE TO SEND IN YOUR QUESTION AND DRAWING](#)

[CLICK HERE TO WATCH THE VIDEO \(FROM 2ND JUNE\)](#)