



Introduction

The reign of Queen Victoria (1837 to 1901) was time of tremendous change to the lives of the British people. It was the age of railway and feats of engineering.

Our wonderful Old Bridge was built to replace the Sir William Cubitt designed Victorian Bridge. This was a cast iron arch bridge opened in 1856. It was designed to allow more traffic to pass over and under the bridge, as the medieval bridge was too narrow for road traffic and the arches underneath obstructed the flow of river traffic. The Admiralty insisted that the new bridge include a section to allow tall ships to pass, so a swing section was built at the Strood end. This was never opened in earnest – most sailors were used to dropping their masts to go under the Medieval bridge, and so continued this habit. Within fifty years, the Victorian Bridge sadly was already in need of refurbishment. Several notable crashes had caused severe damage to the cast iron arches, and though repaired, the bridge needed extensive renovation.

This was not the only Victorian bridge the Rochester Bridge Trust supported. In 1879, the Trust donated a significant sum towards the repair and rebuild of the 14th Century Maidstone Bridge, by distinguished Victorian engineer Sir Joseph Bazalgette.

In this resource, you can explore the era of the industrial revolution and the British Empire, as well as science, engineering and maths.



Exploring Engineering resources from RBT

Have a look at our resources to support learning and activities. You will find reading materials and activities to have a go at!

Our Learning about Bridges resource can be found here:

<http://www.rochesterbridgetrust.org.uk/exploring-engineering/lesson-plans/>

Session 7 – Arch Bridges (Part 1)

In this session you will be introduced to the arch bridge and learn some more new words in the language of bridges.

NB: One activity requires more than one child – it's fun if you have sufficient people, but isn't essential. You can find examples of arch bridges all around, using Google Earth again or simply searching for arch bridges online.





Exploring Engineering resources

Isambard Kingdom Brunel was an innovative and pioneering 19th Century Engineer. He designed the Clifton Suspension Bridge <https://www.cliftonbridge.org.uk/visit/history>. As the name suggests, it is a suspension bridge. A simple activity around building a suspension bridge requires two books, some string and two drawing pins (or similar). The image below is taken from Ladybird Leaders book 'Bridges' 1974 (ISBN 9780721403991). You can explore how to make your suspension bridge stronger by adding more complicated strands or extra anchorage.

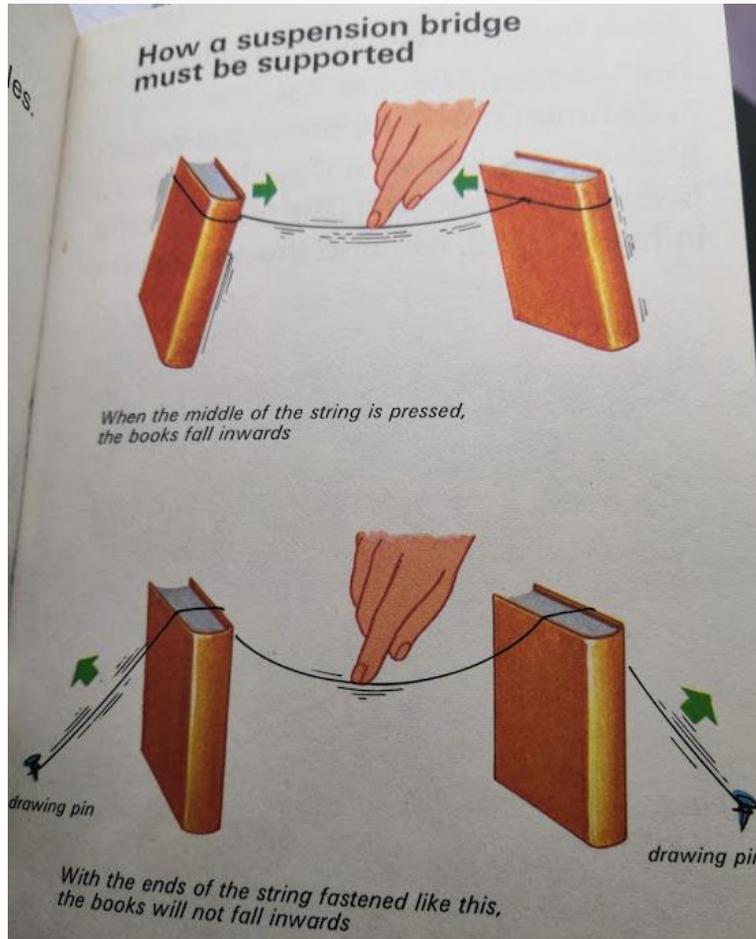


Photo courtesy of ironbridge.org.uk



Want to learn more?

Here are a range of other resources that you might find interesting to learn more about this topic:

The Iron Bridge at Coalbrookdale is one of the world's most notable bridges, and was part of the Industrial Revolution.

To find out more, <http://www.primaryhomeworkhelp.co.uk/riversevern/ironbridge.html>



Want to learn more?

You could find out more about civil engineering by Isambard Kingdom Brunel, Sir Joseph Bazalgette and other civil engineers that transform our lives and shape the world around us here:

<https://www.ice.org.uk/events/exhibitions/ice-invisible-superheroes-exhibition>

<https://www.museumoflondon.org.uk/discover/how-bazalgette-built-londons-first-super-sewer>

<http://broughttolife.sciencemuseum.org.uk/broughttolife/people/josephbazalgette>

Could you write some profiles about famous Victorian engineers?

Or how about writing a story about the opening of the Clifton Suspension Bridge?

You could draw a picture of any of the engineering designed by these famous Victorians.

Something to watch!

Fancy watching something on tv? Let's have a look at some of these brilliant tv shows, and see what else there is to find out!

BBC History – True Stories: Isambard Kingdom Brunel

<https://www.bbc.co.uk/teach/class-clips-video/true-stories-isambard-kingdom-brunel/zjrtvk7>

Bazalgette – Saviour of the Great Stink (ICE)

<https://youtu.be/5k8AnhNkN04>

Absolute Genius | Joseph Bazalgette | S1E6

<https://youtu.be/pqjFYcL6Xq0>

Absolute Genius | Kingdom Brunel | S1E10

<https://youtu.be/9WWjel-XIVw>

Engineering the London Underground

<https://youtu.be/jSMGsi9WSs>

Just for fun...

<https://www.bbc.co.uk/cbbc/watch/horrible-histories-songs-queen-victoria-mambo-number-ten>

