



Overview:

We will learn about structures and how they can be made strong and stable

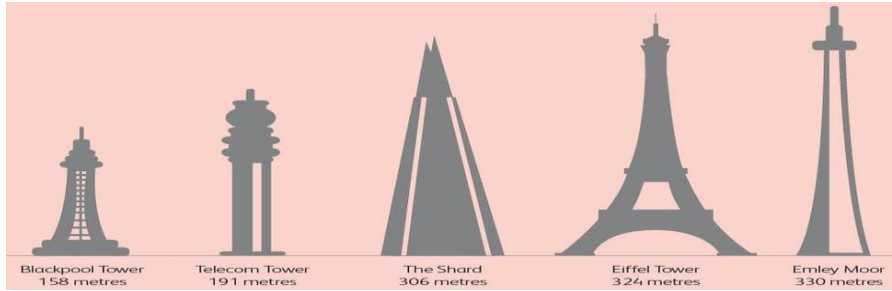
We will make a model of Old London Bridge. The bridge will be covered in houses as in Tudor times.

In Forrest School we will set it on fire just like the bridges and houses in the Great Fire of London.

Freestanding Structures

Freestanding means stands up on their own!

Emley Moor Tower in Huddersfield is 330.5m high and is the tallest freestanding structure in the UK

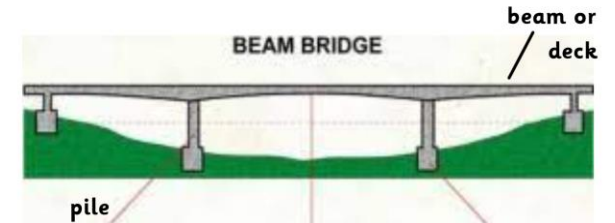


What are Structures?

Structures are buildings, bridges and other objects that have been made by people to do a job.

These structures need to be strong so that they can stand up on their own.

Parts of a bridge.



Why Are Bridges So Strong?



Bridges are made of:



London Bridge in 1666

London Bridge was made out of wood. It kept falling down and had to be made stronger. It was very close to Pudding Lane and the Great Fire of London.

Key words	Definition
Design	To plan what something will do and look like.
Bridge	A structure that carries something across water or land.
Material	What an object or structure is made from
Structure	Something that has been made, like houses, buildings and bridges.

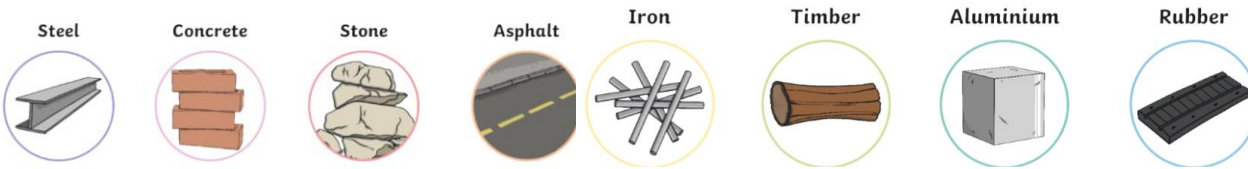


Different Bridges

There are lots of different types of bridges.

What material are they made of? **construction**
What does the bridge cross? **purpose**
Who or what will use the bridge? **users**

Bridges are made of:



How can we make our bridge stronger?

Metal and concrete are strong materials.

We can add more layers to the deck to make it stronger.
A U shaped beam or deck is much stronger than a flat beam.



This bridge is strong because of its u shaped deck

Attaching and Fixing

Attaching shows us how we can fix one object to another securely.
We may use tabs, flanges, braces ,glue, tape or pins



Iron suspension bridge

Look at these bridges.
What are they made from?



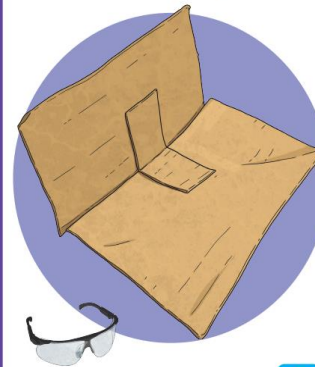
Stone Arch bridge



Wooden beam bridge

L - Brace

A way to connect two pieces with a 90° angle.



Flange

A way to connect tubes or pipes.



Tabs

A way to attach a standing wall.

