### **Year 5 DT Bridges**

#### **Key Skills**

- 1. To explore how to reinforce a beam (structure) to improve its strength
- 2. To build a spaghetti truss bridge
- 3. To build a wooden truss bridge.
- 4. To complete, reinforce and evaluate my truss bridge.



Arch bridge - A bridge which is built with a curved arch.

Beam bridge - A bridge which is built with horizontal beams and vertical pillars.

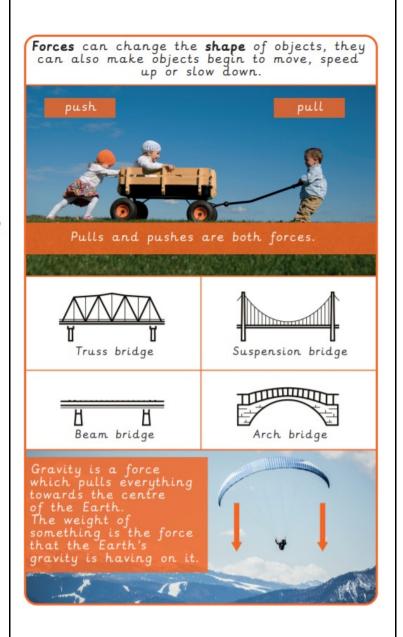
Reinforce -To make a structure or material stronger, especially by adding another material or element to it.

Suspension bridge - A bridge which is supported by vertical cables and suspended by cables which run between pillars that are connected onto either end of the bridge.

Tension - A stretching force caused by two parts of a structure being pulled apart.

Truss bridge - A bridge which is built from a series of triangular beams.

#### **Key Knowledge**



#### **Previous Learning**

- Pavilions (Year 4)
- Castles (Year 3)
- Baby Bear's Chair (Year 2)
- Windmills (Year 1)

## What I will know/be able to do by the end

- This topic develops children's understanding of secure structures and introduces them to measuring, sawing and joining wood accurately. After learning about different types of bridges and also exploring how the strength of structures can be affected by the shapes used. Children create their own wooden bridge and test its durability.
- I can follow health and safety rules
- I can suggest appropriate design criteria points to fulfil the design brief

# Websites/Signposting/Connection to a famous person

https://www.youtube.com/watch? v=hz6ghvVbKpY

https://www.kapowprimary.com/subjects/design-technology/upper-key-stage-2/year-5/structure-bridges/