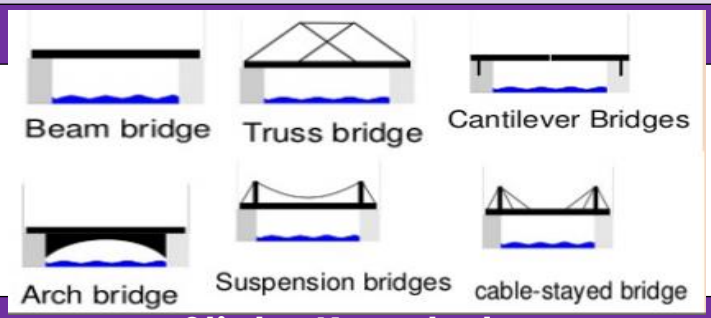
Radcliffe Primary School Knowledge Mat

DT - BRIDGES

Subject Specific Vocabulary

functionality	Being useful, practical and right for the purpose something was made.
accurate	Correct and without any mistakes.
design specification	A list of criteria a product needs to meet.
reinforce	To make a structure or material stronger, especially by adding another material or element to it.
refine	To make minor changes to improve or perfect something.
triangulation	The use of triangular shapes to strengthen a structure.
rigid	A material that is unable to bend or be forced out of shape; not flexible
tension	A force pulling on a material or structure.
Truss	A truss is an assembly of beams or other elements that creates a rigid structure.
Bridge	A structure across a river, road, or other obstacle.
Span	The distance between two bridge supports.
Arch bridge	A semi-circular structure with abutments on each end.
Suspension	Supported by attachment from above; hanging.



Sticky Knowledge

I can use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose

I can generate, develop, model and communicate my ideas through discussion and annotated sketches computer-aided design

I can select from and use a wider range of tools and equipment to perform practical tasks

I can select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities

I can investigate and analyse a range of existing products

I can evaluate my ideas and products against their own design criteria and consider the views of others to improve their work

I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures

Recommended reads



Useful information

- Beam bridges are the simplest structural forms for bridge spans supported by a pier at each end.
- A truss bridge is a bridge with its load-bearing structures composed of a series of wooden or metal triangles, known as trusses.
- A cantilever bridge is a bridge built using cantilevers, structures that project horizontally into space, supported on only one end.
- An arch bridge is a bridge with abutments at each end shaped as a curved arch.
- A suspension bridge is a type of bridge in which the deck is hung below suspension cables on vertical suspenders.
- A cable-stayed bridge has one or more towers from which cables support the bridge deck.