

Our School Values- DT	
Love	We show love by learning and exploring different materials, mechanisms, designers and architects.
Courage	We show courage by sharing and talking about our designs.
Unity	We show unity by helping each other and sharing techniques.
Inspiration	We show inspiration by expressing ourselves and being proud of what we have achieved.



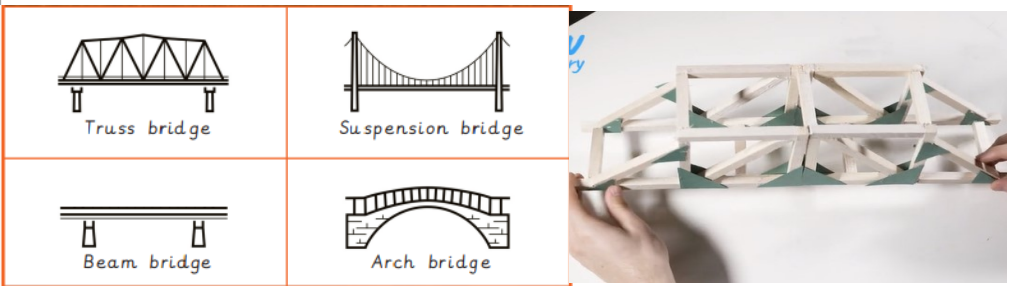
Year 5
Design Technology
Structures—Bridges



NC Objective:
Use a wide range of tools and equipment to perform practical task (for example, cutting, shaping, joining and finishing) accurately

Knowledge I already know
To understand how a pulley works (Year 2) I know how to make a pulley (Year 2) A mechanism lever is simply a plank or ridged beam that is free to rotate on a pivot. A set of things called a system working together is part of a mechanism
Knowledge I will learn
To understand how bridges work To build a structure Skills that I am going to learn: To use coping saws, bench hooks and a workstation safely. To apply my understanding of structural design to a final piece.

Key Vocabulary	
Word	Definition
Arch bridge	A bridge which is built with a curved arch
Beam bridge	A bridge, which is built with horizontal beams and vertical pillars.
Bench hook	A tool which hooks onto the edge of the workbench. It's used to hold woodwork still when sawing
Mark out	To measure and mark out where a piece of material needs to be cut or shaped.
Structure	The form of an object
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.
Truss bridge	A bridge which is built from a series of triangular beams.



LI: I can create a range of beam and arch bridge designs	LI - I can create a truss bridge and understand how triangles can reinforce bridges.	LI - I can create a truss bridge and understand how triangles can reinforce bridges.	LI I can measure and cut accurately and safely using a saw and set square	LI: I can assemble accurately follow a template to create a wooden truss bridge.
Investigate strength of simple bridges with card.	Explore how trusses can strengthen bridges..	Create a spaghetti truss bridge.	Assemble parts ready for wooden truss bridge.	Build wooden truss bridge. Test wooden truss bridge for strength.