



Year 2 design technology: building bridges

What I should already know:

Identify and describe a variety of everyday materials, including simple physical properties.

At the end of this topic, I will know:

Explore and evaluate a range of existing bridges.

Design a bridge based on structure and strength.

Build a bridge by selecting a range of materials according to their characteristics and exploring how they can be made stronger, stiffer and more stable.

Select a range of tools and equipment to perform practical tasks.



Key Facts:

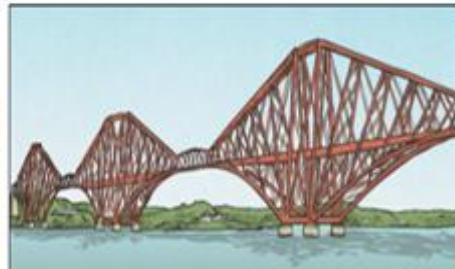
The Swiss Bridge in Birkenhead Park is the only covered bridge of traditional wooden construction in the UK. It is a truss bridge with a roof, decking and siding.



Arch bridge



Beam bridge



Cantilever bridge



Suspension bridge

Vocabulary

Structure	A building or object made from several parts.
Bridge	A structure built over something so people can cross.
Deck	The part of the bridge that you walk over.
Materials	Bridges can be made from a variety of different materials such as steel, concrete, wood, stone, brick etc.
Stable	A structure that is firm and solid. Not likely to give way.
Beam bridge	The simplest bridge and usually short. The beam part of the bridge is supported at either end, where the weight of the bridge pushes down.
Truss bridge	Made of a series of wooden or metal triangles, known as trusses which allows the bridge to be stable and support a large amount of weight.
Cantilever bridge	Uses cantilevers to create an area for people or vehicles to travel on. A cantilever is something that sticks out to the side while being supported by something else.
Arch bridge	Uses a curved shape to spread the weight from the bridge over the curve.
Suspension bridge	Uses rope, chains or cables to hold the bridge in place. They are spaced out along the bridge to secure the deck area. This bridge usually covers large distances.