

Year: 5
 Term: Summer 2
 Topic: Structures - Bridges

Where does this learning link to aspirations for the future?

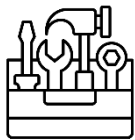
Many people have designed bridges throughout history and continue to do so. You could be a designer, project manager or work for a company that supplies the materials.

In DT we follow this five step process.

Research



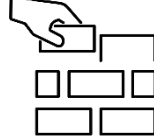
Skills



Design



Make



Evaluate



Forces can change the **shape** of objects, they can also make objects begin to move, speed up or slow down.

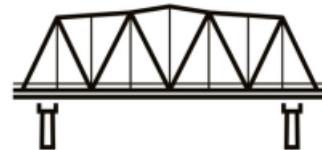
push

pull



Pulls and pushes are both forces.

Gravity is a force which pulls everything towards the centre of the Earth. The weight of something is the force that the Earth's gravity is having on it.



Truss bridge



Suspension bridge



Beam bridge



Arch bridge

Glossary

- accurate** Neat, correct shape, size and pattern with no mistakes.
- bench hook** A tool which hooks onto the edge of the workbench. It's used to hold woodwork still when sawing.
- compression** A squashing force caused when parts of a structure are pushed together.
- coping saw** A saw with a narrow D-shaped metal blade, used for cutting curves in wood.
- file** A tool used to smooth down rough edges on wood or metal materials.
- mark out** To measure and mark where a piece of material needs to be cut or shaped.
- reinforce** To make a structure or material stronger, especially by adding another material or element to it.
- sand paper** Strong paper with sand on one side to smooth or polish woodwork.
- set square or try square** A right-angle triangular plate, wood or metal tool used for drawing lines at different angles.
- structure** Something which stands, usually on its own.
- tenon saw** A saw with a flat blade, used for cutting wood in straight lines or angles.
- 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.