DT: Bridges

Knowledge

Knowledge and skills
Enhances and empowers
You to
Succeed

Cronton CE Primary School

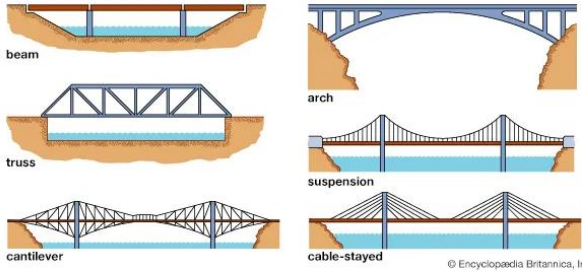
Keys to Success

Summer

Vocabulary

Bridges provide essential links between places. They allow roads, pipes, water and people to pass over ground, rivers and mountains. We have two bridges in our local area that were built to allow people to cross the River Mersey: The Runcorn Jubilee Bridge and the Mersey Gateway.

Thomas Telford and Isambard Kingdom Brunel were famous bridge designers and builders who helped to develop better, stronger and longer bridges.
Bridges have to be very strong because many of them will need to carry very heavy loads.
Tension and compression are important **forces** that act upon structures. A balance of these forces is what helps a structure to stay strong.
There are 6 main types of bridges. Some shapes are better for building bridges, such as triangles.



Technical Vocabulary

Bridge: a structure to carry something across an obstacle e.g. across a river.
Beam: a simple bridge e.g. a plank across a ditch.
Cantilever: supported only at one end.
Arch: curved bridge: usually stone/metal.
Suspension: hangs from cables that rest on top of high towers.
Cable Stayed: like a suspension bridge but the cables are placed differently.
Truss: made of many small beams that support lots of weight.
Force: a push or pull on an object.
Tension: if you stretch an elastic band as far as it can go, the force that is working is called tension.
Compression: e.g. when you squeeze a sponge or stand on a pile of books. Dead load: the bridge's own weight, which doesn't change.
Live load: the weight of what the bridge is carrying, which changes continually.
Materials: a substance used to make something. They have different properties.
Pulley: a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object.