

Autumn Year 6 D.T: Frame Structures Knowledge Organiser

Key vocabulary

frame structure	A building or object made from thin components
compression (squeezing)	The pressure applied when you squeeze an object
tension (stretching)	A force which is pulling on a material or structure .
reinforce	To make a structure or material stronger.
horizontal	A line that is parallel to the ground
vertical	A line that is at right angles to the ground.
diagonal	A straight line that goes from one corner to another.
triangulation	The use of triangular shapes to make a structure stronger.

Key Frame Structure

Iron Bridge, Ironbridge, Shropshire.

Designed by Thomas Farnolls

Pritchard

Built by Abraham Darby III

Purpose: to transport goods across the River Severn.

Materials: the world's first cast iron bridge.

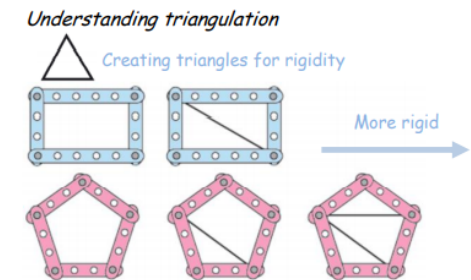
Opened: 1st January 1781



Key Knowledge — How to reinforce 3 D frames.

Triangulation

When force is applied to one point on the triangle, the pressure is shared amongst the other two points, which make the structure more rigid.



A rigid frame requires secure joints.

Joining Straws



Some materials such as wood are stronger.

Joining Wood

