

Conversion of units

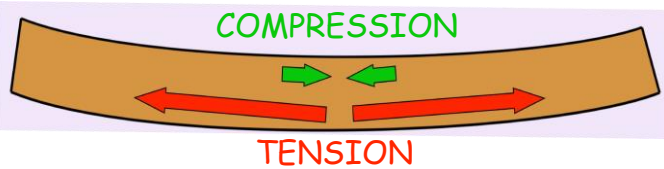
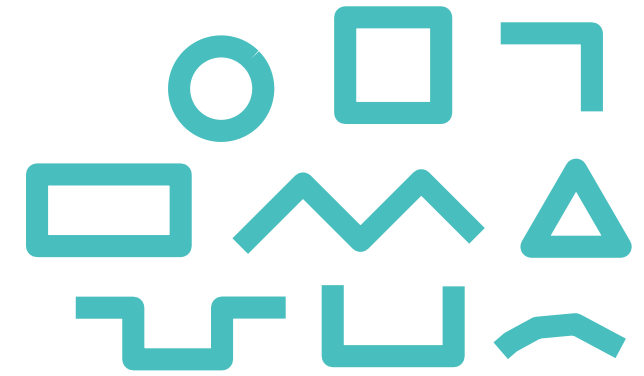
Metres	Centimetres
1m	100cm
5m	500cm
10m	1,000cm
20m	2,000cm
50m	5,000cm



Different types of bridge



Cross-Section of beams



Bridges - Year 5

By the end of this unit

- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures

What I should already know

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
- Evaluate their ideas and products against design criteria
- Build structures, exploring how they can be made stronger, stiffer and more stable

Vocabulary

Deck	The surface of a bridge
Parapets	They are at the side of a bridge and provide a safety barrier
Span	The distance between two supports for a structure
Cross-section	Seeing a cut through view of an object e.g. a cross-section of a Toblerone bar is a triangle
Trusses	Multiple beams connected to each other in a pattern (usually a triangle)
Abutments	Found at either end of a bridge and are there to support it
Hard-wearing	Can withstand a lot of wear/lasts a long time
Brittle	Tough but can break easily
Anchorage points	Points which hold the bridge down and keep it steady.
Tension	Being stretched tightly
Prototype	A first version of a product/design