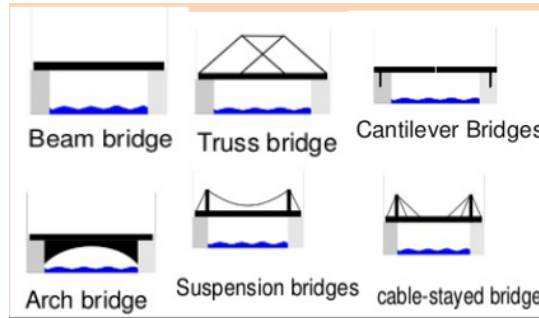


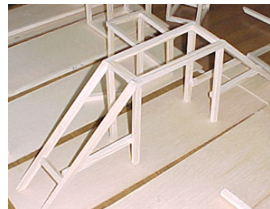
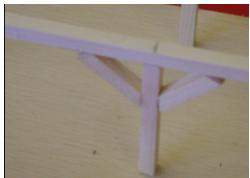
# Design Technology Subject Knowledge Bank

## Year 6: Structures

Vocabulary	<u>Definition</u>
<b>Strut</b>	a rod or bar forming part of a framework
<b>Cantilever</b>	a long projecting beam or girder fixed at only one end, used in bridge construction
<b>Cross brace</b>	cross bracing is a system utilized to reinforce building structures in which diagonal supports intersect
<b>Prototype</b>	A prototype is an early sample, model, or release of a product built to test a concept or process.
<b>Truss</b>	a framework, typically consisting of rafters, posts, and struts, supporting a roof, bridge, or other structure.
<b>Arch</b>	Curved symmetrical structure spanning an opening and typically supporting the weight of a bridge, roof, or wall above it.

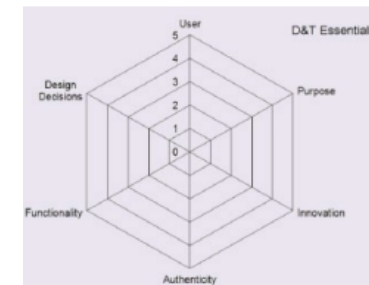


- Beam bridges are the simplest structural forms for bridge spans supported by a pier at each end.
- A truss bridge is a bridge with its load-bearing structures composed of a series of wooden or metal triangles, known as trusses.
- A cantilever bridge is a bridge built using cantilevers, structures that project horizontally into space, supported on only one end.
- An arch bridge is a bridge with abutments at each end shaped as a curved arch.
- A suspension bridge is a type of bridge in which the deck is hung below suspension cables on vertical suspenders.
- A cable-stayed bridge has one or more towers from which cables support the bridge deck.



Isambard Kingdon Brunel 1906 – 1859.

- He was an engineer during the Victorian Era. Thanks to Brunel we are able to travel up and down the country quickly, as well as cross many rivers.
- Bristol
- The city that still homes many of Brunel's greatest achievements. Brunel designed the Clifton Suspension Bridge, Temple Meads Station and the SS Great Western.
- The Great Western Railway
- In 1835, Brunel was asked to build a railway that would connect Bristol to London. The first trains ran in 1838. The railway is still in operation today.



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