

Tier 3 Vocabulary

build	Putting parts or materials together.
bridge	A structure carrying a road or pathway over an obstacle.
construct	To build or make something.
construction	The action of building something, typically a large structure
structure	Something built from different parts
distribution	The way in which something is spread over an area.
tension	Being stretched tight.
force	Strength or energy from a movement.
compression	An increase in pressure.
load	Weight or source of pressure.
deck	The floor of the bridge.
design	A plan or drawing to show the look and function of a structure before it's made.
materials	The matter from which a thing is or can be made.
engineer	A person who designs, builds or maintains engines, machines or structures.
evaluate	To reflect on a process and identify areas that could be better.

Working and thinking scientifically

We are being scientists by:

- Setting up simple practical enquiries, comparative and fair tests
- Using straightforward scientific evidence to answer questions or to support their findings
- Making systematic and careful observations
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identify differences, similarities or changes related to simple scientific ideas and processes
- Asking relevant questions and using different types of scientific enquiries to answer them.

Key Facts

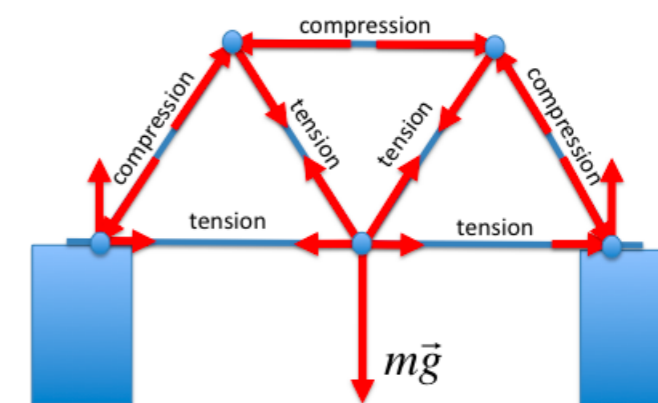
Triangles help to distribute the weight more evenly on a bridge design.

Suspension bridges have decks hung on suspensions, they rely on tension to distribute the weight evenly.

Truss bridges is made from connected elements, usually forming triangular units

Beam bridges are the oldest and simplest form of bridge with a horizon-

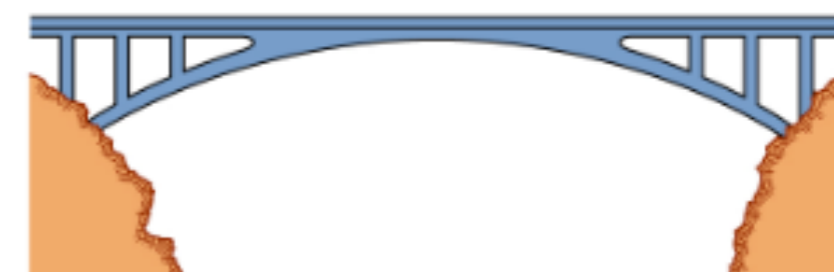
Arch bridges allow the load to spread out instead of pushing straight down.



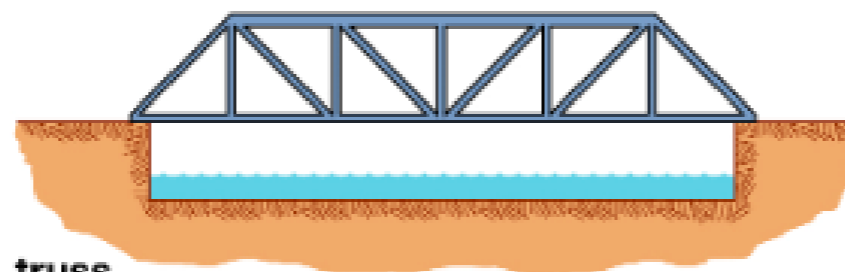
Pictures and Diagrams



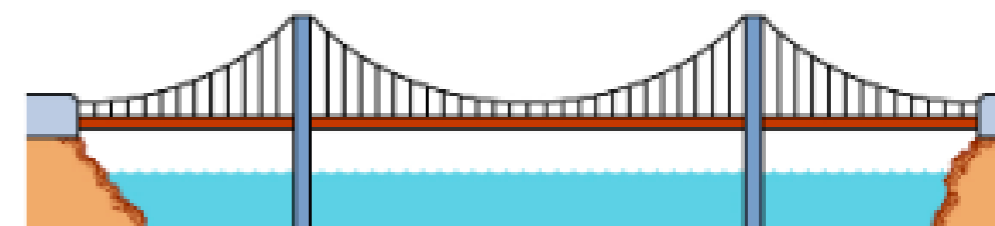
beam



arch



truss



suspension