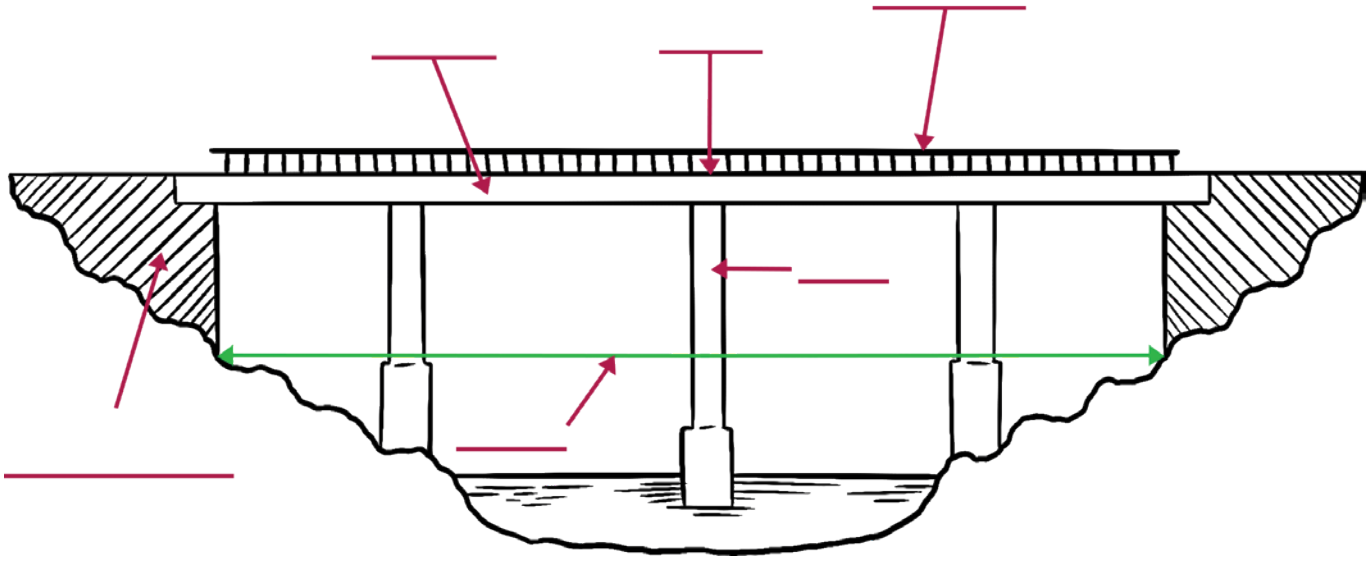
Beam bridge terminology

Label the parts of the bridge using the list of words below



Beam | Parapet | Abutment | Pier | Span | Deck

Beam bridge record sheet

Record your beam bridge building attempts

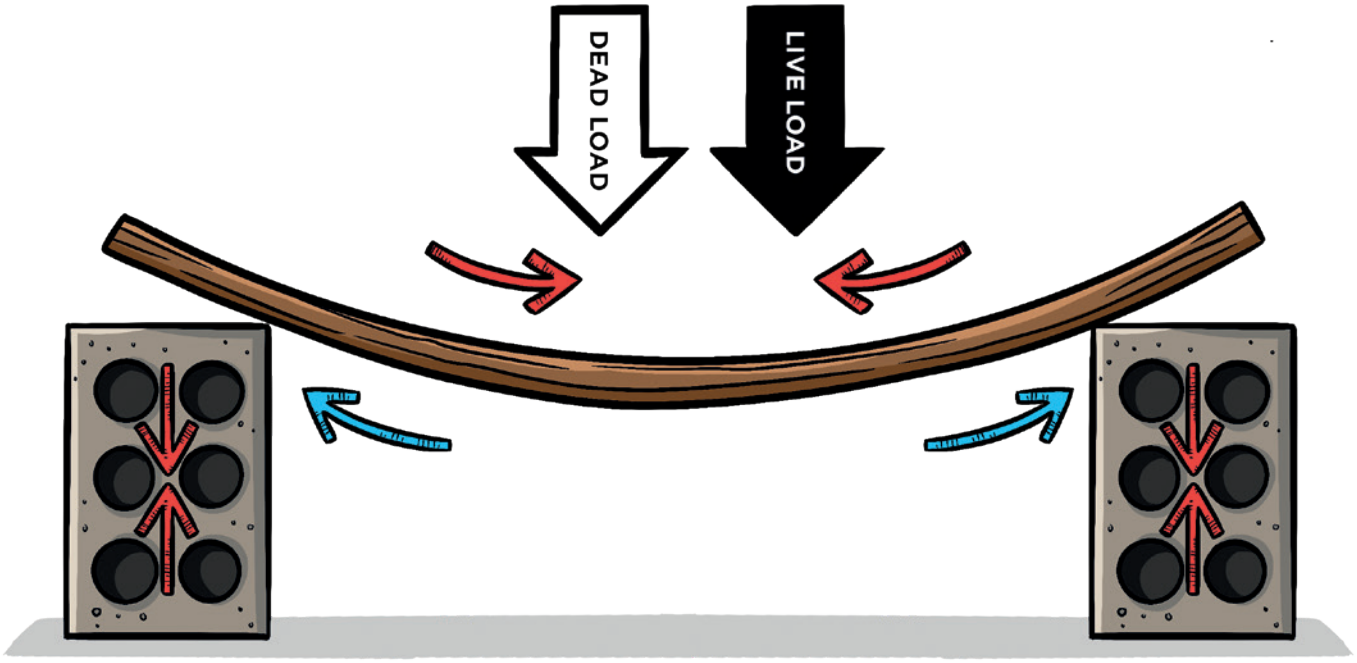
Beam type	Maximum load (weight)	How it failed?
Transverse corrugation		
Longitudinal corrugation		
Arch and beam combined		

Can you figure out WHY your beam bridge has failed? This is an important part of being an engineer!

Forces in a beam bridge

Compression

Tension



Bridge building challenge

Using only the materials provided you must build a bridge of your own design to span a gap of 40 centimetres and test its strength by loading it with masses.

RULES

- The bridge must span the 40-centimetre gap and support itself without anything else holding it
- The bridge must NOT be taped to the table
- The weights must sit on the bridge above the gap and not directly above the table
- Your bridge will be tested to see how much weight your bridge can carry. The winning team will receive a prize and a certificate!

HINT

Try rolling or folding the paper to make it stronger.

Materials

- 1 metre of sticky tape
- 6 sheets of A4 paper
- Scissors
- Ruler

Win or lose, it's important to understand WHY your bridge failed!

CONGRATULATIONS!

Bridge building challenge certificate

ROCHESTER BRIDGE TRUST

This is to certify that

_____

took part in the RBT paper bridge challenge
and took on the role of a Civil Engineer!

Well done on a fantastic effort!

Signed: Langdon the Lion

Signed: Caroline Chisholm
(Education Manager)

Date: _____