

Spanning a gap: beams, arches and triangles

engineering

What you need: equal card strips (about 20 cm long) · sticky tape · same-size hardback books for supports · 1c coins · 30 cm ruler · pre-folded card triangle braces (scaffold set) · Investigation Journal page

Words to use

Beam · Arch · Braced beam

Our question

Which span shape holds the most 1c coins across the same taped 15 cm gap?

I predict...because...

Coins held by each span (in coins)

Span type	Coins held	Where it failed

Draw a bar chart of our results

Which bar is tallest? What does that tell us about shape?

Did the arch fail differently from the beam?