Lesson 34

Why beams are deep, not wide

Engineering

Words to use

Beam · Depth · Width · Orientation

The bend test: which way was harder to bend?

Material	Harder to bend (flat or on its edge)	What we noticed
Ruler		
Card strip		
Lolly stick		

The card beam test

> Which beam holds the most coins before it sags 1 cm or gives way? The same card, the same gap and the same cup on the middle. Only the shape changes.

Before the first coin: I predict the ... will hold the most coins, because ...

Our card beams

Beam	Depth (mm)	Coins it held	What happened
Flat beam			
L beam			
Triangle tube			

Which beam held the most coins, and what about its shape made it stiff?

Why do builders fit floor beams standing on their edge, not lying flat?