

Structures: bridges and load

engineering

What you need: card strips of equal size, long enough for a 20 cm span (e.g. A4 cut lengthways into matching strips) · scissors · masking tape · book stacks or wooden blocks as bridge supports · 30 cm ruler (to set a 20 cm gap) · coins or metal washers for load testing

Words to use

Load · Span · Bridge shape

Our question

Which bridge shape holds the most load before it fails?

I predict...because...

Our design choice: how we will form the folded ridges, and make the truss triangles

Bridge shape and load held

Bridge shape	Load held (count)

Draw a bar chart of our results

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

Would the ranking stay fair if one group used a shorter span?

Did the strongest shape also use more card from the budget?

Which shape held most in our group, and did that match our prediction?