

Paper bridge: test an idea

A 15-minute teacher-led enquiry. Question: does folding a paper bridge change whether it supports one rubber for 10 seconds? Predict, compare and use your results to explain.

Gather and set up

Use two identical A4 sheets, two equal-height books, one small rubber, a ruler and a timer. On a stable table, place the books 10 cm apart. Lay one flat sheet across the gap. Fold the other sheet back and forth lengthways into a concertina; it must still span the same gap.

1. Predict and plan

I predict _____ because _____.

Change only the paper shape. Keep the gap, paper type, rubber, rubber position (centre of the gap) and 10-second test time the same.

2. Test both designs

Place the rubber gently at the centre. Does the bridge hold it for 10 seconds? Reset and repeat three times per design. Record Yes or No.

Design	Test 1	Test 2	Test 3
Flat paper			
Folded paper			

3. Explain what you found

Our results show _____.

The evidence is _____.

If results varied, what should we check before testing again?

Teacher prompt

Compare results with the prediction; do not promise a winning design. If paper tears or creases further, replace it with an identical fresh version before repeating. Supervise the tabletop activity; do not add heavier loads.