

Paper Bridge Challenge

Time: 30 minutes

You need

- ☐ 2 books or boxes of the same height
- ☐ Several sheets of paper
- ☐ Tape
- ☐ Coins or paper clips to use as weights

Steps

- 1** Place the two books 20 cm apart.
- 2** Lay one flat sheet across the gap and add coins one by one until it bends. Count them.
- 3** Fold a new sheet into pleats, like a fan, and test it the same way.
- 4** Try a rolled tube or a different shape.
- 5** Write down how many coins each design held.

Before you start: what do I think will happen?

My observations

Table 1. Bridge test results

Bridge design	My prediction (coins)	Coins it held	What happened when it bent
Flat sheet			
Fan-folded sheet			
Rolled tube			
My own design			

Think about it

Which shape was strongest? Why do you think so?

Where do real bridges use this idea?

Draw or stick your work here



Name: _____ Date: _____

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