

Bridge challenge

The problem:

Using only two sheets of paper, build a strong bridge. Ideally, your bridge should be at least 6 inches long and 3 inches wide but it is okay if it is a bit smaller!

The test:

How many pennies will your bridge hold before it collapses?

You need:

- paper
- Pennies
- 2 books about the same width

Here's what you do:

1 Place the stacks of books approximately 6 inches apart.

2 Think about bridges that you have seen.

Can you make something that has the same shape out of paper?

3 Experiment!

- Make a paper bridge across the gap between the books.
- Put pennies on your bridge, one by one. Watch what happens when pennies push downward.
- Keep adding pennies until the bridge collapses.
- Think about how you could change your bridge so it's better at fighting the downward push.
- Change your bridge and try again. Build at least three different designs.

