



Design a Paper Bridge

I. M. Pei brainstormed several different ideas before deciding to build a glass pyramid as the entrance to the Louvre. Test your engineering skills by creating and measuring the strength of three different bridge designs.

YOU WILL NEED

Two book stacks, each approximately two inches tall

Several sheets of paper

A handful of pennies

Place your two book stacks 6 inches apart. Design a bridge made of paper to span the gap between the book stacks. Think about the bridge's length, width, thickness, and your paper folding technique (half fold; accordion; trifold; etc.). Test the strength of your bridge by adding pennies until the bridge collapses. Record your findings.

BRIDGE 1

Description: _____

How many pennies can the bridge hold? _____

Modify your design and try again.

BRIDGE 2

Description: _____

How many pennies can the bridge hold? _____

Modify your design and try again.

BRIDGE 3

Description: _____

How many pennies can the bridge hold? _____

Which bridge was the most successful? Describe your modification process and how it helped or weakened your designs.
