ACTIVITY WORKSHEET · AGES 5–10

Build a Bridge with Elena

Practice the Engineering Design Process



ELENA'S TIP

Engineers don't stop after the first test. Every try teaches you something new!

Name _____ Date _____

THE ENGINEERING DESIGN PROCESS

You'll need: paper, tape, two books the same height and some pennies.

1. Identify the problem

Make a paper bridge between two books that holds as many pennies as it can. Leave a gap as wide as your hand.

2. Brainstorm

Draw two ideas. Could you fold, roll or stack the paper?

Idea 1

Idea 2

3. Prototype

Build the idea you like best. I built:

☐ a folded bridge ☐ a rolled bridge ☐ my own idea

4. Test and evaluate

Add pennies one at a time until the bridge sags.

Pennies it held: _____

5. Improve

Change one thing, then test again.

I changed _____

_____

Pennies it held now: _____

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