STICKY STRUCTURES

Design and build “platforms” or “bridges” that can hold weight. Then test which glue makes the strongest structure.

Try it on your own or with a team of your friends or classmates!

WHAT YOU’LL NEED

• 2 or 3 identical, unopened cans of soup or soda (about 10 oz/300 grams)
• Popsicle/craft sticks (30 per structure)
• Paperclips (10 per structure)
• 2 or 3 kinds of glue (such as a glue stick, school or craft glue from a store, homemade moo glue...)

WHAT TO DO

1. Draw a picture of the “platform” or “bridge” you will build. Show detail of how many sticks and clips you will use. Your structure should be designed to hold a can 2 inches (5 centimeters) above a flat surface.

2. Build two or three identical structures. Use a different kind of glue for each one.

3. After the glue dries, put your structures on the same flat surface (like a table top or floor).

Activity continued on next page
4. Put one can on top of each structure.

5. Check each structure after 15 minutes, ½ hour, 1 hour, and 2 hours. Which structure(s) still holds up the can? Has any structure sagged or collapsed? Which glue made the strongest structure? How would you build your structures differently in the future?

6. If all your structures remained intact, try increasing the load by adding more weight.

DID YOU KNOW?

• Mussels make their own natural glue—even under water. The glue is so strong it lets the mussels stick to rocks pounded by heavy surf.