

ACTIVITY!

PROJECT!

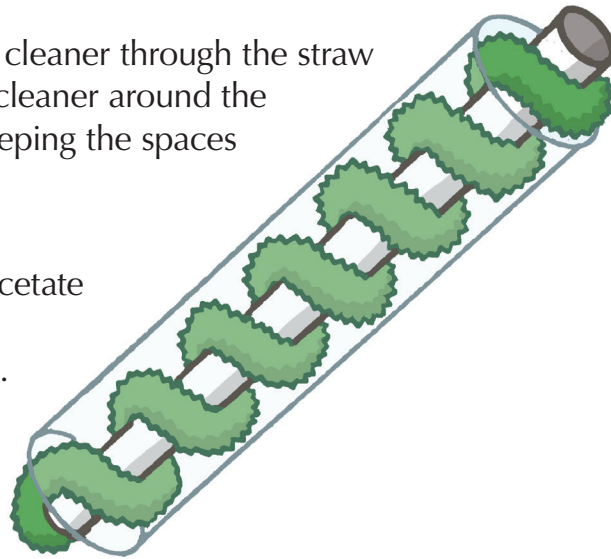
ARCHIMEDES' SCREW

Greek scientist Archimedes (288–212 BCE) invented a device to move water from a river to a farmer's field. This device—called the Archimedes' screw—is a tube with a large spiral inside. When you place the tube in water and turn it, the spiral pushes the water up. Try it!

1 Poke one end of the pipe cleaner through the straw to secure it. Wind the pipe cleaner around the straw to make the screw, keeping the spaces between the spirals even.

2 Tightly wrap a piece of acetate around the screw to make a cylinder. Secure it with tape. It should fit snugly, but the screw should still be able to turn.

3 Pour sugar into a bowl and insert your screw at an angle. Place another bowl below the top of your screw. Turn the screw, not the cylinder. What happens to the sugar? What happens to the lowest point and highest point of the spiral?



SUPPLIES

- * pipe cleaner
- * straw
- * acetate or clear plastic folder
- * tape
- * 2 bowls
- * sugar
- * science journal and pencil

TRY THIS! Make an Archimedes' screw that lifts water using only clear plastic tubing, a water bottle, and tape. Test your design. Based on your results, make changes to your design and try again.

