



## DIY ACTIVITY

# MAKE A RECYCLED RACER GRADES 3-5

### OBJECTIVES

- Utilize materials that might otherwise end up in a landfill for other purposes.
- Use a rubber band to propel a race car.

### PROCEDURE

1. Cut a notch in one short end of the cardboard about 2 inches wide and 1.5 inches deep.
2. Slide the skewer through the cardboard and the notch.
3. Wrap a small piece of tape around the middle of the skewer (inside the notch). This will serve as a catch for the rubber band.
4. To make a wheel, put a washer in the center of the CD and slide the center of the washer/CD combo onto one of the protruding skewers. Using poster putty, secure both sides of the washer/CD tightly to the skewer. The CD should not be able to spin on the skewer, or axle.
5. Repeat step 4 for the other wheel. When complete, the wheels and skewer should rotate together.
6. Tape the rubber band to the center of the cardboard.
7. Stretch the rubber band around the tape catch. Then wind it around the axle by spinning the wheel/axle combo.
8. Let go and watch your racer go!

### MATERIALS NEEDED

- Piece of cardboard
- Wooden skewer (with tip cut off)
- Scissors
- Tape
- Two washers
- Two CDs
- Poster putty
- Large Rubber band

### WHAT IS GOING ON HERE?

Using recycled materials, you have harnessed the power of the energy in a stretched out rubber band to move the car. The energy stored in the rubber band spins the skewer and wheels as it unwinds propelling the car forward. The tighter the rubber band is wound, the further your car will go.

### FURTHER EXPLORATION

What other recycled materials could you use to make a race car? Ask an adult for other materials that are no longer in use and try to design a *faster* car. You can also use recycled materials to build other inventions.

**⚠** Be sure to cut off the tip of the wooden skewer if it has a pointed end.