

ACTIVITY!



**Make
Your Own**

SIMPLE ENERGY

With this simple car, you'll see the difference between stored energy and kinetic energy. When the rubber band is twisted tight, it's packed with potential energy—stored up and ready for anything. When you release the rubber band, the potential energy is converted into kinetic energy—and your car moves. Try different sizes of rubber bands to see the difference in output.

supplies

- 2 straws
- duct tape
- small box or container like a milk carton
- scissors
- 2 skewers or dowels a little longer than the width of the box
- CDs or yogurt container tops with holes in the middle
- clay
- rubber bands
- thumbtack
- stickers, markers, glitter, and other items to decorate your car

1. Tape one straw to the bottom of the container about an inch from one of the short edges. This will be the front of your car.

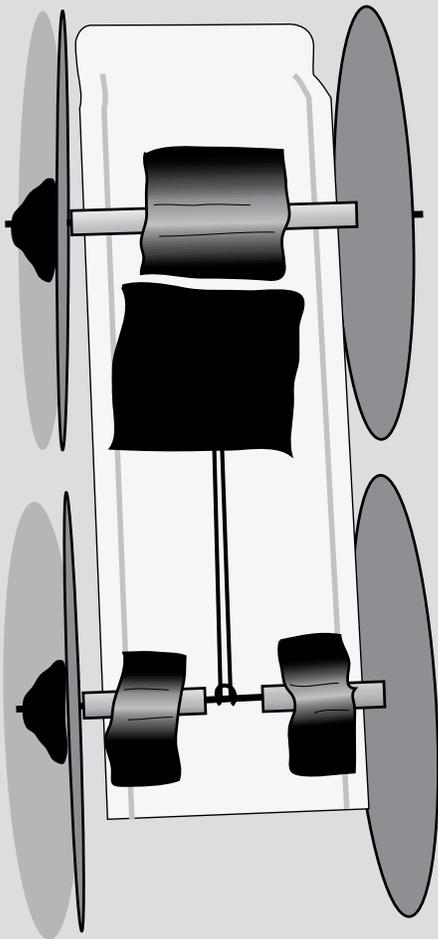
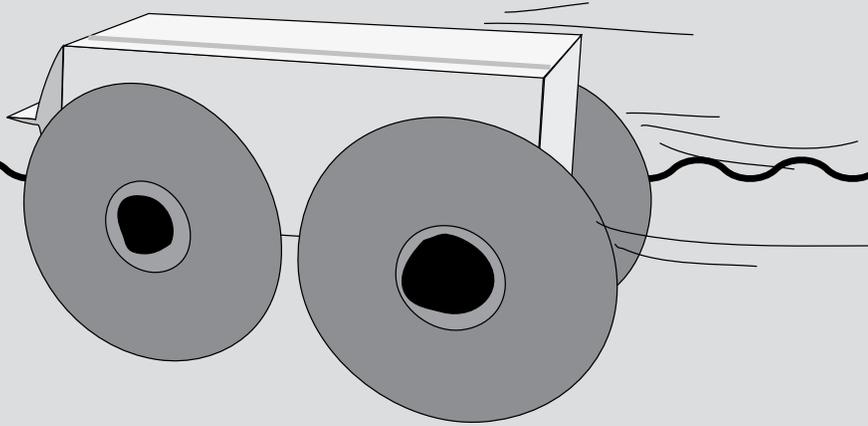
2. Cut the other straw into two short pieces. Line up the two pieces of straw on the bottom of the container toward the back, also about an inch from the edge. They should be in line with each other, but with about an inch of space between them. You may have to trim the ends if they stick too far past the edge. Tape them down very tightly.

3. Push one skewer through the straws in the back and another through the straw in the front. These are your axles.

4. Secure the CDs on each end of the skewers. The CD holes will be larger than your skewer, so you'll have to fill in the space with clay.

ACTIVITY!

CAR



5. Loop the rubber band around the rear skewer in the space between the straws. An easy way to do this is to push the rubber band under the skewer, then run it back through the loop on the other side of the dowel and pull tight.

6. Pull the rubber band toward the front of the container. Don't stretch it so far that it won't stretch any more, because you won't be able to twist it when you're ready to roll.

7. Secure the rubber band to the bottom of the box using the thumbtack. Tape over the tack with duct tape to make sure it's extra secure. Decorate your car, and it's ready to roll!

8. To make your car go, turn the back wheels until the rubber band is twisted around the rear axle and ready to spring. Set your car down, and let it go. Experiment by setting the car at the bottom of a ramp to see how much energy it needs to go up inclines. See if it has enough energy to launch off jumps.