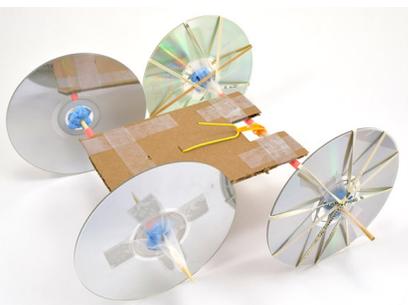


RUBBER BAND CAR

Build a self-propelling car.

Materials

- Cardboard
- 2 Drinking straws
- 2 Wooden skewers
- 4 CDs (that can be scratched)
- Sponge
- Paperclip
- Rubber bands
- Tape
- Scissors



Procedure

- Cut a piece of cardboard into a 3 by 4 inch rectangle, and cut out a 1 by 1 inch square on one of the short edges of your rectangle.
- In the middle of your cardboard, cut a small hole and thread your paper clip through it. You want enough paper clip exposed on one side to act as a hook. Tape the paper clip in place to secure it.
- Cut your straw in half and tape one of the pieces to the short end of your rectangle that DOES NOT have the cut-out square. Take the other straw piece and cut a rectangle into the middle of it. Tape this straw piece to the end with cut-out square. Your straws should be parallel to each other and taped across each short end of the rectangle.
- Cut your wooden skewer into two pieces that are slightly longer than your straw pieces (you may need to cut down two skewers if one isn't long enough). Slide the skewers into the straws. These are now your car's axles.
- Cut 4 small squares out of a kitchen sponge. Carefully press them to the ends of each skewer, until the skewer has gone completely through the sponge.
- Take a CD and wedge one over each sponge. Use tape to make this connection really secure. You have now added wheels to your axles. Give your car a test run, adjusting it until it runs smoothly, before moving on to the next step.
- Loop a rubber band around the back axle by threading it through the opening in the straw under the wooden skewer. Pull one loop of the rubber band through the other loop and then hook that end on your paper clip. You have now created your engine.
- To crank up your engine, twist the wooden skewer to wind the rubber band around it. Hold your skewer in place until you're ready for your car to run, then release the skewer and watch your rubber band car drive away!

This activity was adapted from Interactive Science

Results You have built a car propelled by a rubber band!

Why? There are two kinds of energy; kinetic energy and potential energy. Kinetic energy is the energy of something moving, while potential energy is stored energy. By winding the car's axle, you stretch the rubber band and store potential energy. When the axle is released, the rubber band unwinds and all that potential energy is converted into kinetic energy.