



DESCRIPTION

Want a race car that never needs any gas? Then learn how to build your very own magnetic boxcar. With the magnificent magnetic force on your side your car will be cruising in no time!

MATERIALS

- compass with pencil
- 1 piece of cardboard
- tape
- scissors
- modeling clay
- toothpicks
- 2 inch x 1 1/2 inch box
- 2 magnets
- straws

DIRECTIONS

1. The first thing we want to do is take one of our magnets and tape it to the inside of our box.
2. Pull out the drawer and put your magnet in it.
3. Next, take a couple of pieces of tape and tape the magnet to the cardboard.
4. When your magnet is securely taped inside the drawer, put the drawer back inside your box. Make sure that the "attraction" side of the magnet is faced down in the drawer.
5. Ok, now that our magnets are attached to the inside of our box we need to make wheel attachments for our cars. Take your straw and cut it into two 1 ½ inch long pieces. Your straws should be the same size as the width of your box. When you are done cutting the straws to size, tape them to the bottom of your car.
6. Put your straws in the spots where the wheels will go.
7. The next thing we are going to do is take our kabob stick and cut off two 2 ½ inch pieces for our wheel shafts. You can use your box to measure your wheel shafts.
8. Just make sure that the kabob sticks are slightly longer than the width of your box so that your tires will be able to move. Once you have cut your kabob sticks to size, insert them into the straws.
9. Now that our wheel shafts are ready to go, it's time to make our tires. Use your compass to make 4 circles on your cardboard. They have to be the same size. Cut out each wheel when you finish drawing them out and make sure that there is an adult around whenever you use scissors.
10. Now, when you have all of your wheels cut out; attach them to your wheel shafts by poking the shaft through the center of the wheel. Attach clay to the pointy edge of each wheel.
11. To make your car move, put it on a flat table top and take your other magnet and put it under the table. Make sure you have the sides of the magnet that attract facing each other.