

BALLOON CAR RACE

ENGINEERING CHALLENGE

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The brief

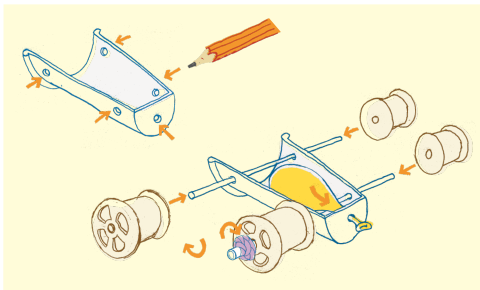
Make and race a balloon powered car.

The method

1. Using scissors, carefully cut the cup in half lengthways, to create the car body.
2. Using a pencil, poke two sets of holes through the length of the cup. One set near the top of the cup, and one set near the bottom. Poke another hole through the bottom of the cup.
3. Insert a straw through each set of holes. Then, slide the cotton reels or lid wheels on to each end of the straws.
4. Wrap a rubber band around the end of each straw; these will keep the wheels from sliding off.
5. Push the neck of the balloon through the hole in the bottom of the cup. The balloon should be lying inside the cup. Make sure the hole is big enough to let the air out.
6. Blow up the balloon, place on a hard surface and release.

Materials

A balloon
A paper cup
Two plastic drinking straws
Four cotton reels (or drink lids with holes in them)
Four small rubber bands
Scissors (with adult supervision)
A pencil



How does it work?

The balloon powered car is a good example of Newton's Third Law. If object A pushes on object B, object B pushes back on object A with the same amount of force. The force of the air leaving the balloon pushes the car forward.