HOW TO CREATE
A BALLOON POWERED CAR

BY VOLVO X FLYING CAPE

This is a toy car made from standard toilet roll, straws, wooden skewers, bottle caps and a balloon. It will move on its own when the balloon is inflated. It results in a toy that can be used by children in many ways, and opens up a number of subject areas for further learning. A moving car is a very motivating and exciting toy for children, especially during this period where children are constrained by activities within their homes.

MATERIALS

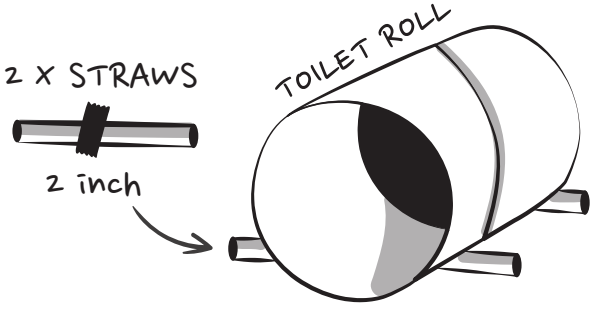
- Toilet roll
- Stickers for decoration
- 2 X 2-inch plastic straws
- 1 regular length straw
- 2 long wooden sticks (dowel or skewers)
- 4 plastic bottle caps (for wheels)
- Sticky tape
- Balloon
- Markers
- Scissors
- Tools to make holes (nail and hammer with adult supervision)

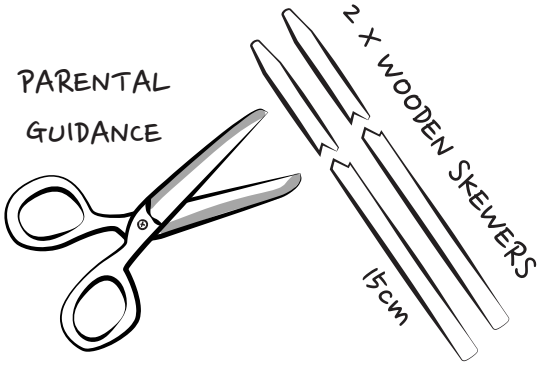
Safety Reminder:
Remember, ask an adult for help when handling sharp objects.
Be careful at all times.

INSTRUCTIONS

STEP 1

Using the toilet roll as the car body, attach both 2-inch plastic straws along the toilet roll at a distance of about 2-cm from the end of the roll.



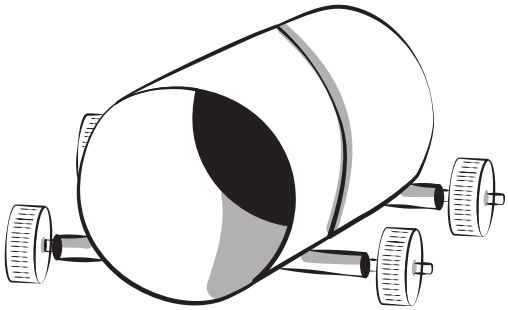


STEP 2

Cut the wooden skewer into two 15-cm length sticks which will serve as the wheel axle.

STEP 3

Poke holes in the middle of the four bottle caps.



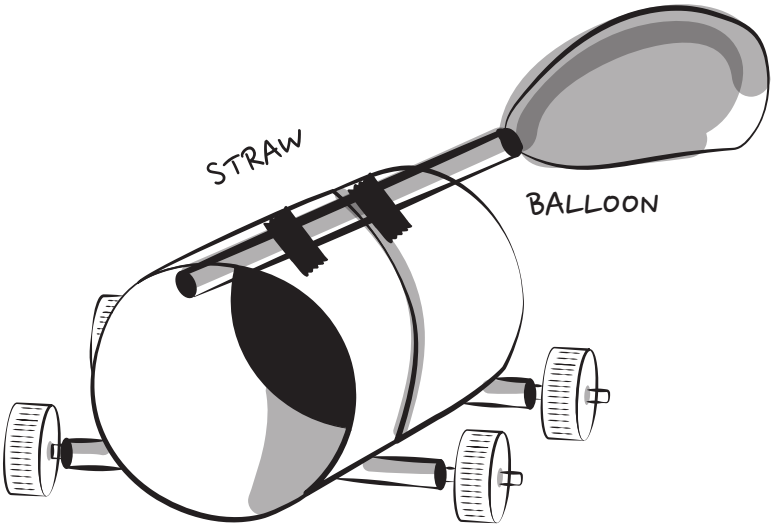
STEP 4

Slot axles into the plastic straws on the toilet roll and attach the 4 bottle caps.

STEP 5

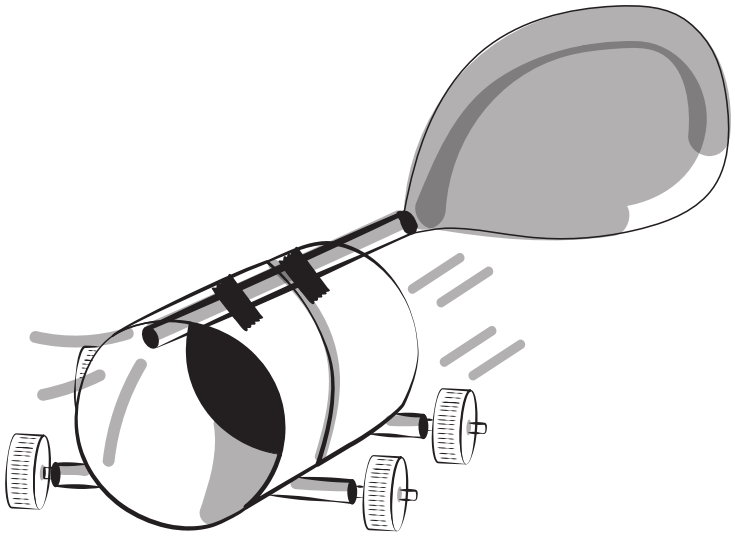
Now, attach the regular straw to the balloon using tape. Place the straw (with balloon) on the toilet roll and secure it with tape.

You are now done with the car. Now comes the fun part. Using the markers, the children can now decorate their car and make it as awesome as they can.

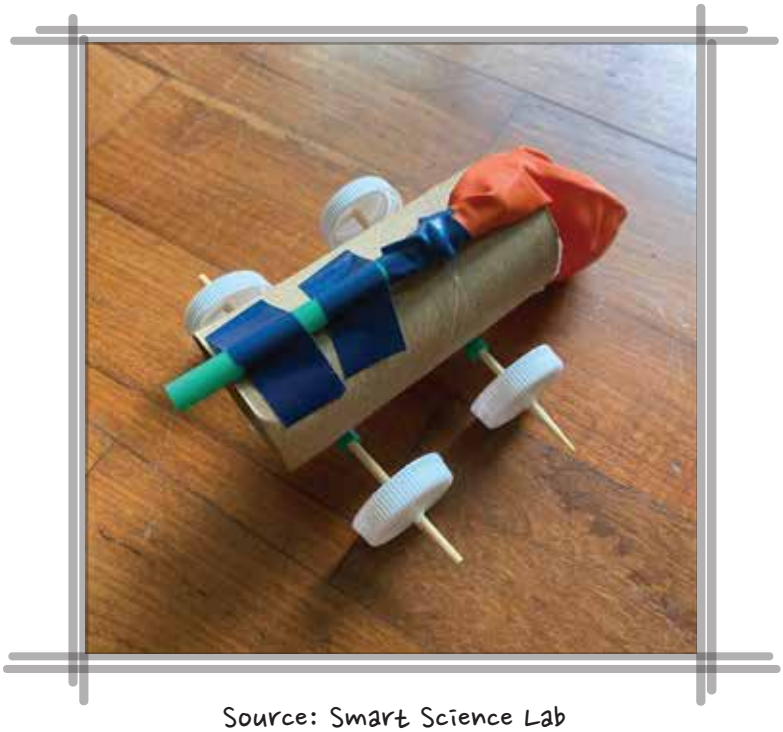


Making the Balloon powered car move

Place the completed car on to a flat surface (table or floor). Lift the car and blow in to the end of the balloon holder straw so that the balloon inflates. When the balloon is big enough and you're all out of breath, squeeze the straw to prevent the air from escaping. Place the car on the flat surface and let it go.



Experiment picture



Source: Smart Science Lab

Explanation:

The reaction is the air behind the car pushing against the car with the same force, causing the forward movement of the car. As the air flows from the balloon, the energy changes to kinetic energy or the energy of motion. The moving Balloon-Powered car is using kinetic energy, thus converting potential energy to kinetic.