

Make a Balloon powered car!

What you'll need

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| <input type="checkbox"/> Clean cardboard & other recyclables (bottles especially) | <input type="checkbox"/> Wooden skewers |
| <input type="checkbox"/> A couple of balloons | <input type="checkbox"/> Straws |
| <input type="checkbox"/> Tape | <input type="checkbox"/> Rubber bands |
| <input type="checkbox"/> Rubber bands | <input type="checkbox"/> Scissors |

Introduction

In this activity, you and your child will learn about what's important for cars to move, and then build a balloon-powered car!

Discuss: What is important for cars to move?

Discuss these questions with your child:

- How does a car move? (It rolls on wheels, the wheels are turned by the engine)
- Would a car move if the wheels couldn't turn? (No)
- How do you think a balloon-powered car moves? (The balloon pushes air out, which pushes the car along.)
- Will the balloon powered car work if its wheels don't turn? (Probably not.)
- How do you think you can use the materials here to make wheels that turn? (Discuss with your child, brainstorm some ideas.)

The goal is to get them thinking about how they will ensure the wheels stay on their car and spin, and where the balloon will go to make the vehicle propel forward.

Do it!

Before they begin building, have your child blueprint their idea for a balloon car. Ideally, you should also blueprint your own design and create a marble run. If you've done the Blueprinting activity, this drawing should be familiar to you. If not, follow the guidelines below:

A blueprint is simply a drawing that shows how something will be made.

The drawing should:

- Include a view of the car from several sides
- Show how big it might be with measurements
- Include labels to show what is what, and what materials are used

Tip: There is an example of a balloon-powered car at the end of this guide! You can also search "balloon powered car" online to find lots of picture examples.

Tip: To cut round wheels out of cardboard, cut squares, then cut the corners off. Keep cutting smaller and smaller corners off, until you have a circle.

Adaptations

For Younger children

Skip the blueprinting part, and work together to build the example vehicle at the end of this guide. You might also search YouTube for “balloon powered vehicle” and follow a video tutorial.

For An Extra Challenge

Set a distance goal: the car has to drive that far.

Vocabulary

Blueprint: A plan that shows exactly how to make an object. Might also be called a **design** or **design drawing**.

Fun facts

Life-size lego air powered car: A teenager in Romania built a life-sized lego car that runs off air. See it in action here:
https://youtu.be/_ObE4_nMCjE

Also, people have been experimenting with real-life air powered cars for more than a century! More recently a company in India made prototypes for an air powered car called the AIRPod, but they never sold any.

Balloon powered car example:

