

Episode 10: Wind Powered Car



How can air cause movement? Rachael is learning about how air can apply force and cause movement in the Science Time Lab, using household items to make a wind-powered car!

Scientific concept: Moving air pushes things.
Science process skills: Observing, comparing and predicting.
Let's investigate: *Can you make a cardboard car move with air?*

Materials

- 4 x cotton reels
- 3 x straws
- 2 x bamboo skewers
- Thick cardboard e.g. recycled box
- Paper
- Tape
- 4 x hair ties
- 1 x hand fan

Experiment procedure

1. Make a car using a rectangular piece of cardboard as the base. Next, build 2 axles for your car. For each axle, slide a skewer through a straw. Place a cotton reel over each end of the straw and secure with a hair tie. Tape both axles to the base of the cardboard car.
2. Next, make a sail for your car. Punch two holes in a piece of paper (one at the top and the other at bottom). Poke the straw through both holes to create a sail. Secure it to the car base with tape.
3. Try to make the car move by blowing with your breath, using air as force.
4. Next, use a hand fan to blow more air onto your car and watch it move! The sail should catch the air from the fan, creating enough force for the wheels to spin on the axle and move the car forward. You've created a wind powered car!



Early Education links

Episode themes relate to [EYLF Learning Outcomes](#) 4.1, 4.2 and 4.4. Invite children to manipulate loose parts & recycled materials to engineer and construct their own wind powered car. Ask children to predict whether the air from the fan will make the car move along the table at a faster speed, compared to the air from their breath.

Follow-up learning

- Use a desk fan to stimulate stronger wind power. Use coloured tape to mark the distance of how far each child's wind powered car travels from a starting line. Promote investigation by asking - *How much further did your car travel with the desk fan, compared to the air from the hand fan?*
- Discover more facts about how wind can make power with [Play School: Through the Windows](#).
- Extend children's understandings about clean energy including wind, water and sunshine with the [Play School: Green Team Early Education Notes](#).

