

Puff Mobile

What You Need

- 3 nonbendable, plastic drinking straws
- 4 Lifesavers™
- 1 piece of paper
- 2 paper clips
- tape
- scissors

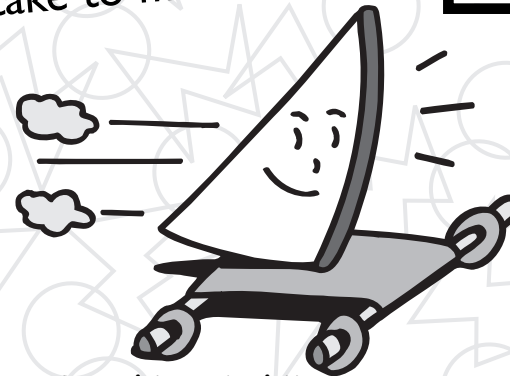


Engineering Scoop

When you blow, you create **moving air**, or wind. When wind **pushes** against an object, it can make the object **move**. Think about a **sailboat**. Wind pushes against the **sail** and makes the boat move. So a sail is one part of your car that can help it move. **Wheels** can also help your car move. Maybe you have a **bike** at home. What would happen if you took the wheels off and tried to move it? (It takes a lot of force to move something that's **rubbing** along the ground.) What **other parts** did you design to help your car move?

1 Make a **car** using only the materials on the list. Here's the catch: to make your car move, you can only **blow** on it!

2 **Test** it out! How **far** does your car go when you **blow once**? How many puffs does it take to make the car travel **6 feet**?



Sent in by Reba C. and Lee Anne F. of Medfield, MA



Redesign your car so that it will travel the **same** distance with **fewer** puffs. What happens if you change the **size** of the car? What happens if you use **fewer materials**? Or, what happens if you add a **new material** like thread spools? Choose one thing to change (that's the **variable**) and make a **prediction**. Then **test it** and **send** your results to ZOOM.

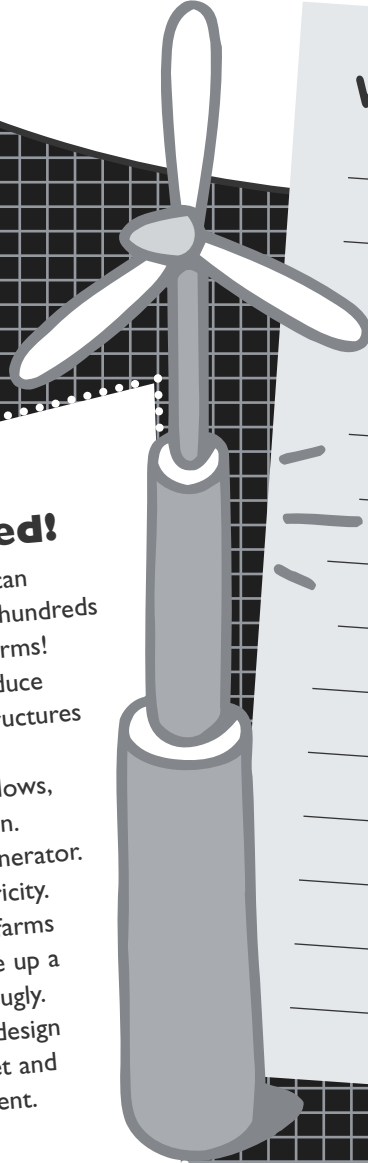
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Engineer's Notebook

My Prediction

Engineers Wanted!

Wind makes your car go—it can also **make electricity** for hundreds of homes. How? With wind farms! Wind farms use wind to produce electricity. Engineers build structures called turbines that look like pinwheels. When the wind blows, the blades of the turbine spin. Then the turbine turns a generator. The generator makes electricity. Some problems with wind farms are that they are noisy, take up a lot of space, and may look ugly. Engineers like **you** could design new turbines that are quiet and blend into their environment.



What Happened

Send It to ZOOM™!
Tell us about your results at
pbskids.org/zoom/sendit