

# Blow It Away

Wind-powered car? Yes. It's a little bit car and a little bit sailboat. Today, you'll build a car and use the wind to move it. Getting around can be such a breeze!



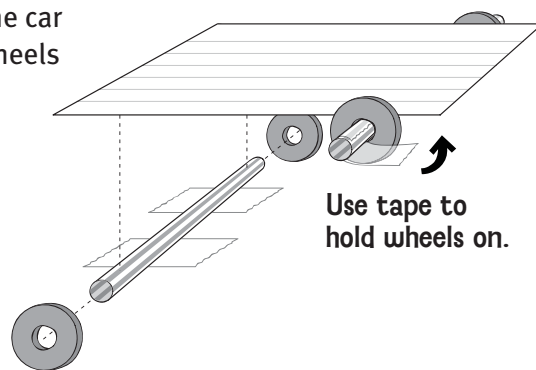
## What to Do

### 1 get what you need.

- 5 drinking straws • Electric fan (ask an adult before using) • 1 4x6-inch index card
- 4 Life Savers® (hard, individually-wrapped mints work best) • 15–20 paper clips • 2–4 paper cups • 1 plastic bag
- Several rubber bands • Ruler • Scissors
- Sheet of paper • String • Tape

### 2 build Your car.

Assemble the car body and wheels as shown.



### 3 Design a “wind catcher.”

Brainstorm some ways to modify your car to capture the wind to make it move.

### 4 build Your “wind catcher.”

Choose one of your ideas. Build your system and add it to your car.

### 5 Attach a load.

Tie ten paper clips together with string. Tape the free end of the string to the back of the car so that the paper clips trail an inch or two behind the car. These paper clips are your load. Adding them to your car makes it a bigger challenge—you have to catch a lot of wind to make your loaded car move!

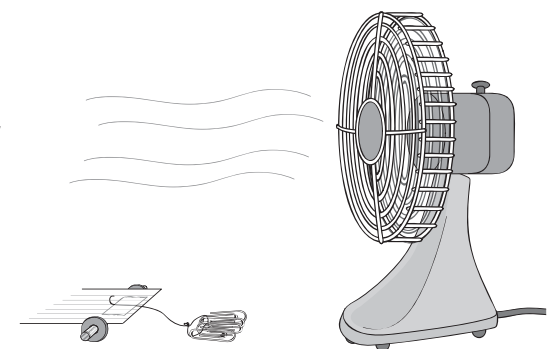
### 6 Test Your design.

Mark a finish line two feet from the fan. Set your car and paper clips next to the fan. Turn the fan on low speed. (You may need to aim the fan so the wind hits your wind catcher.) Did your car pull the paper clips across the finish line? If not, make a change and try again. If your car was successful, try the Dig Deeper challenges on the next page.

## chew on This

The wind from the fan applies a force to your “wind catcher.” Since the wind catcher is attached to the car, this force from the wind moves the car. The more wind you catch, the faster your car goes. You can also help your car go faster by getting the wheels to roll smoothly and evenly (i.e., by reducing friction). The more friction there is, the more force it takes to move the car.

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# Dig Deeper

- \* Do a “monster truck pull.” How many paper clips can your car pull? Add five at a time.
- \* Put your “breeze mobile” to the test. Can your car cross a finish line that’s three feet away from the fan? Four feet?
- \* Create a completely different kind of system to catch the wind. Compare it to your first design. Which one works best? Why?
- \* Like making air-propelled vehicles? Get the Hovercraft challenge from the ZOOM Web site at [pbskids.org/zoom/activities](http://pbskids.org/zoom/activities).



Watch FETCH! on PBS KIDS GO! (check local listings) and visit the FETCH! Web site at [pbskidsgo.org/fetch](http://pbskidsgo.org/fetch).

I can't figure out why it takes so much wind to move me around. I just hope my dog license works as a driver's license, too.



greendog

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Fold

Fetch!

# Blow It Away

The FETCHers gave me this beautiful soapbox derby racecar they made. But I sat in it for an hour, and I couldn't get it to move an inch. Wait a minute, you say it only works on hills? And I have to carry it to the top to get it started? That's WAY too much work! A car needs to move by itself! Driving it should be a breeze! Wait, that's it...Make me a car that's powered by a cool breeze!

GOOO  
FETCH!

