Teachable MOMENTS

WQED education

# Power of Wind

## PBS Resources

Wind Powered Car | Activity | Cyber Chase
bit.ly/3P6WwcN

Blowing in the Wind | Video | Curious George
bit.ly/39PsEl8

Air Cannon | Video | Sesame Street
pbslearningmedia.org/resource/sesame-murray-experiment-air-cannon/murray-experiment-air-cannon-sesame-street/

## Extend the Moment

- Wind is a great source of energy, does no damage to the earth, is powerful enough to move vehicles, and can be harnessed in abundance.
- Encourage your child to "notice" the wind- when you are outside. See if you can determine the direction it is blowing by using a streamer or string.
- Point out flags blowing in the breeze.
- Point out windmills and talk about them, you can do some research here: https://kids.kiddle.co/Windmill
- Talk about how water and wind can change the earth's surface- you can start with this video: bit.ly/3FzomKy

Cyberchase

# Wind-Powered Car Activity

## Use wind power!

The town of Bottawa loves using wind as power! Can you create a car that uses the air to move?

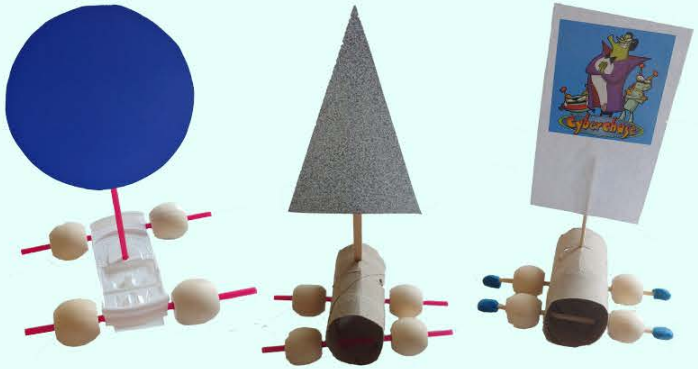
## A wind-powered car needs:

### 4 round wheels
(bottle caps, beads, buttons, cardboard circles, etc.)

### 2 axles
(chopsticks, wooden dowels, straws, etc.)

### 1 body
(toilet paper tube, paper, cardboard, etc.)

### 1 sail
(paper towel, tinfoil, paper, paper plate, etc.)



**Building Tip:** Make sure that the holes for your axles in your car are big enough so that the axles can spin as the wheels move.

## As a family, use the steps below in the engineering design process to design a wind-powered car.

### Ask

What are some examples of things that catch the wind?

What materials do you think would make a good sail? What shape could it be?

### Imagine/Plan

Think about what materials you will use to build your car.

Draw a plan for what your car will look like with a sail.

### Create

Build your car, using your plan as a guide.

### Test

Set up a finish line. Use a fan, a hairdryer, or your own breath to blow behind the sail of your car.

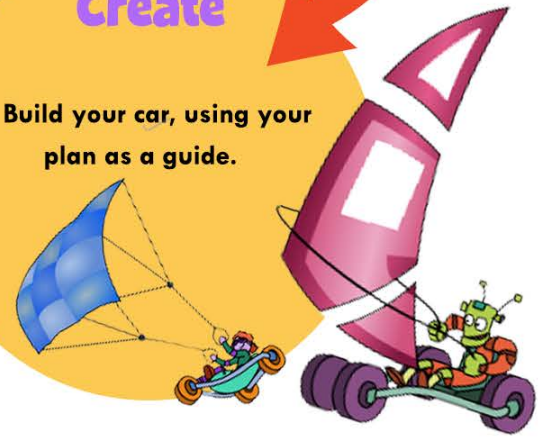
Count or use a timer to see how long it takes your car to cross the finish line.

### Improve

What could you do to make your car go faster?

How could you change or improve your sail?

Draw new plans and start the whole process again!



Around Town with Cyberchase

# How Windy Is It?

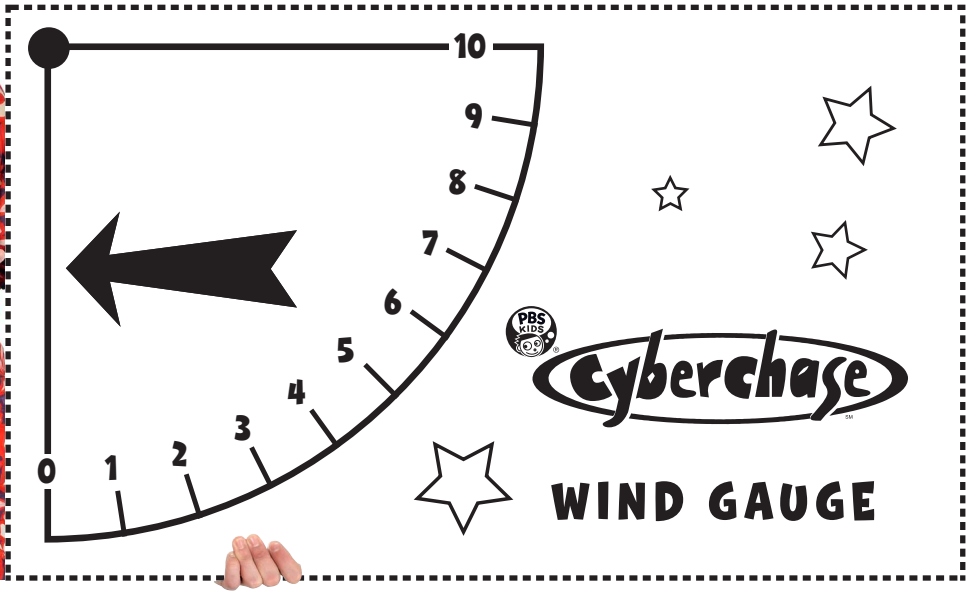
**Measure the wind at different spots around town.**

## Materials

- ❑ 3 x 5-inch index card
- ❑ 12-inch piece of string
- ❑ small paper clip
- ❑ glue stick
- ❑ hole punch
- ❑ scissors

## Directions

1. Cut out the Wind Gauge below and glue it to an index card.
2. Punch a hole through the black dot. Tie the string through the hole.
3. Attach a paper clip to the other end of the string.
4. Outside, hold the card so the string lines up with "0." Point the arrow into the wind. What number does the string line up with now? That's the wind speed!
5. Try measuring the wind in different spots. Where's the fastest wind?




**Watch *Cyberchase* on PBS KIDS!**
**pbskids.org/cyberchase**