

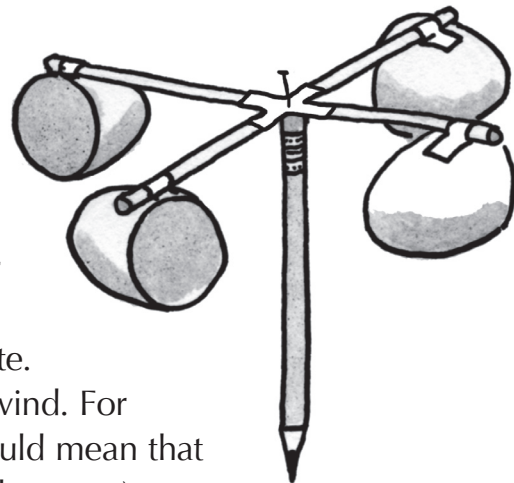
# Anemometer

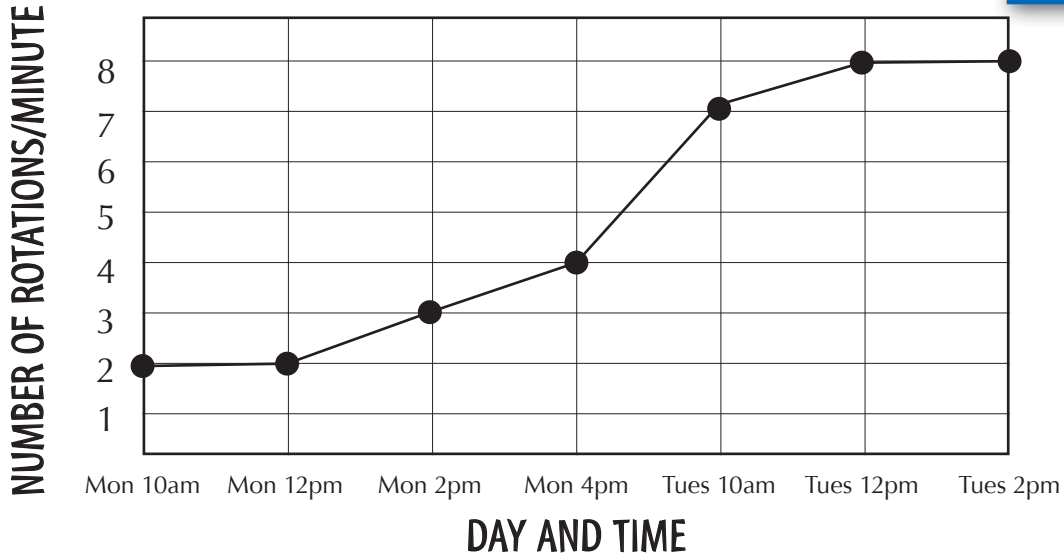
An anemometer measures wind speed. The Wright brothers used a handheld anemometer to estimate wind speed when they tested their flying machines. You can make an anemometer to record wind speed near your home.

- 1** Cut out four separate egg cups from the carton. Make a design with the markers on one cup and set the cups to one side.
- 2** Make an X with the straws and tape the center of the X securely with clear tape.
- 3** Tape one egg cup to the end of each straw so they all face the same direction.
- 4** Push the pin through the straw X and into the eraser end of the pencil. The X needs to spin freely.
- 5** Take your anemometer outside on a windy day. Push the sharp end of the pencil into the ground.
- 6** The egg cup with the design is your starting point. Using a stopwatch, count how many times it goes by in one minute. This number tells you the speed of the wind. For example, two revolutions per minute could mean that the wind speed is 2 miles per hour (3 kilometers).

## SUPPLIES

- ~ egg carton
- ~ scissors
- ~ markers
- ~ 2 long straws
- ~ clear tape
- ~ pencil with eraser end
- ~ straight pin
- ~ stopwatch or watch with a second hand





**THINGS TO TRY:** Record your information on a line graph listing date, time, and number of rotations. Create your line graph online at [nces.ed.gov/nceskids/createagraph/default.aspx](http://nces.ed.gov/nceskids/createagraph/default.aspx). What do you think your line graph will tell you about the wind conditions near your home?

Record the wind speeds at different times of the day. Record the wind speeds in different locations near your home, in the open and in more protected areas.

**THINGS TO THINK ABOUT:** Why did the Wright brothers need to know wind speed? How could they have used this information? What effect does location have on wind speed?

### Then & Now



**THEN:** In 1911, Harriet Quimby became the first woman to get a pilot's license in the United States.

**NOW:** Over 42,000 women in the United States have pilot certificates.