

# WIND ENERGY

**Objective:** Students will demonstrate that wind energy can be turned into electricity with a windmill.

**Illinois State Goals:** 11.B., 12.C., 12.D., 13.A.

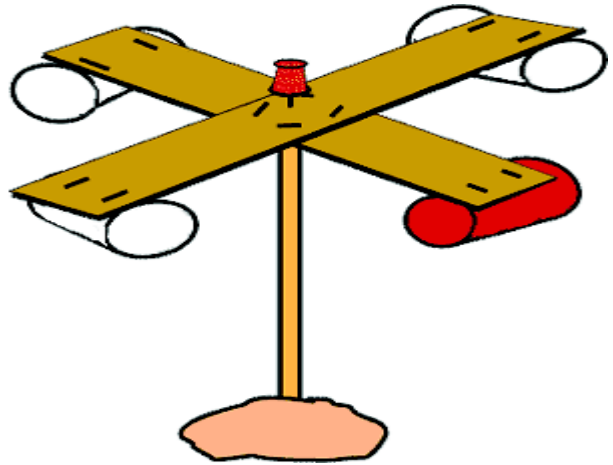
**Top Book Hits:**

Feel the Wind by Arthur Dorros; **ISBN-13:** 978-0064450959

When the Wind Stops by Charlette Zolotow; **ISBN-13:** 978-0064434720

**Materials Needed:**

- Scissors
- 4 small paper cups
- Marking pen
- Push pin
- Sharpened pencil with eraser
- Modeling clay
- Stop watch
- 2 strips of stiff, corrugated cardboard
- Ruler
- Stapler



**Procedure:**

1. Cut off the rolled edges of the paper cups to make them lighter.
2. Color the outside of one cup with the marking pen.
3. Cross the cardboard strips so they make a plus (+) sign. Staple them together.
4. Take the ruler and pencil and draw lines from the outside corners of where the cardboard strips come together to the opposite corners. Where the pencil lines cross will be the exact middle of the plus sign.
5. Staple the cups to the ends of the cardboard strips; make sure the cups all face the same direction.
6. Push the pin through the center of the cardboard (where the pencil lines cross) and attach the cardboard plus sign with the cups on it to the eraser point of the pencil. Blow on the cups to make sure the cardboard spins around freely on the pin.
7. Place the modeling clay on a surface outside. Stick the sharpened end on the pencil into the clay so it stands up straight.
8. Using your watch, count the number of times the colored cup spins around in one minute. You are measuring the wind speed in revolutions (turns) per minute.
9. Measure the wind speed in several spots around the school to determine which location has the highest wind speed. Record your data in a chart.

**Grow Further:** Illinois Renewable Energy Ag Mag [www.agintheclassroom.org](http://www.agintheclassroom.org) or through local agricultural literacy coordinator.

