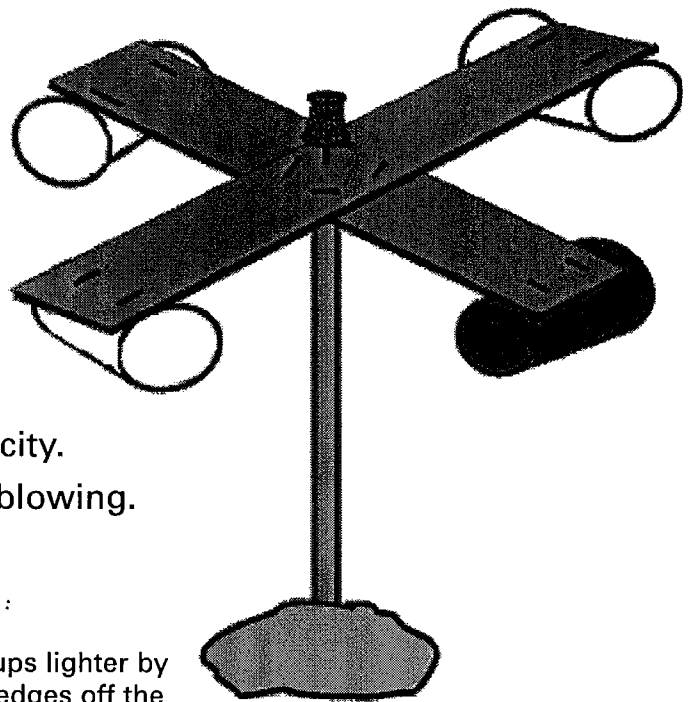


How windy is it?

Make an anemometer and find out!

Wind is used to generate electricity. Wind turbines, which change the wind into electricity, need an average wind speed of about 14 miles per hour to generate electricity. An anemometer tells how fast the wind is blowing.



SUPPLIES AND TOOLS:

- 4 small paper drinking cups
- scissors
- a marker
- 2 strips of stiff, corrugated cardboard, about 18" x 3" each
- stapler
- push pin
- sharpened pencil with an eraser on the end
- modeling clay

DIRECTIONS:

1. Make the paper cups lighter by cutting the rolled edges off the tops.
2. Color the outside of one cup with the marker.
3. Cross the cardboard strips so they make a plus sign. Staple them together.
4. Find and mark the exact center of the cardboard strips.
5. Staple the cups to the ends of the cardboard strips, making sure the cups all face the same direction.
6. Push the pin through the center of the cardboard and attach the cardboard cross 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 outdoors. Stick the sharpened end of the pencil into the clay so it stands up straight.

HOW TO USE YOUR ANEMOMETER:

Using a watch with a second hand, count the number of times the marked cup spins around in one minute. You are measuring the wind speed in revolutions (turns) per minute. Weather forecasters' anemometers convert the revolutions per minute into miles (or kilometers) per hour. Measure your wind speed at different times of the day over the course of several days. Move your anemometer to a more open area, and an area that is more protected. How does this affect your recordings?

Note:

Would you like to receive this newsletter via ecological, economical email? Just let us know by sending us a message at secondnature@alliantenergy.com. Be sure to include "Second Nature E-Newsletter" in the subject line. Don't forget to include your name and service address.