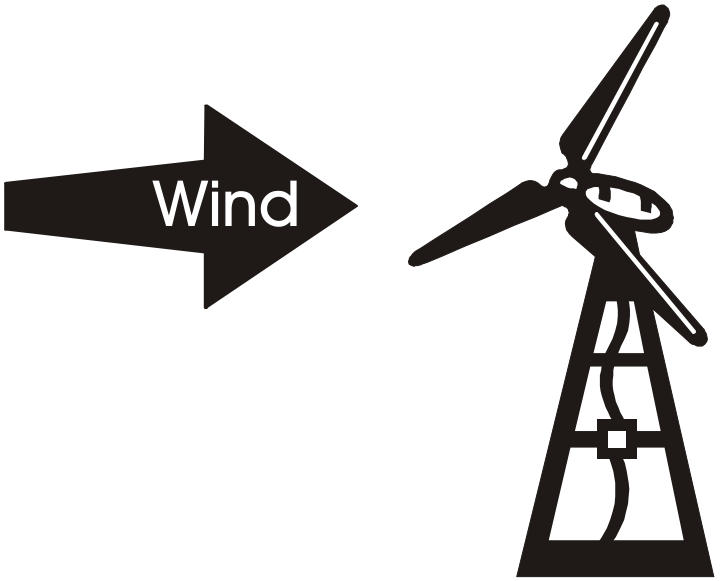
PRIMARY ACTIVITY: Spin the Saltine!

Concepts: The chemical energy in food can be converted into motion.

The linear (straight) motion of air can be changed into a rotational (spinning) motion.

Windmills convert wind - the motion of air - into electricity.



Materials: Box of saltine crackers (enough for each student)

Directions: Provide each student with an unbroken saltine cracker. Make sure the corners of the crackers are sharp. Demonstrate how to hold diagonal corners of a cracker gently between your thumb and index finger, as shown in the picture below. Blow on the outside corner and the saltine will spin like a turbine.

Direct the students to hold their crackers very gently and blow on the outside corner. It might take the students a few attempts to master the technique.

Explain to the students that they are converting the energy in the food they have eaten into motion energy - the movement of air. The energy in the moving air is spinning the cracker. Direct the students to blow very lightly, then harder and harder to see what happens.

Explain that windmills work on the same principle. The blades of a windmill convert moving air, called wind, into a spinning motion that spins a turbine. The turbine spins a magnet inside a coil of wire to produce electricity.