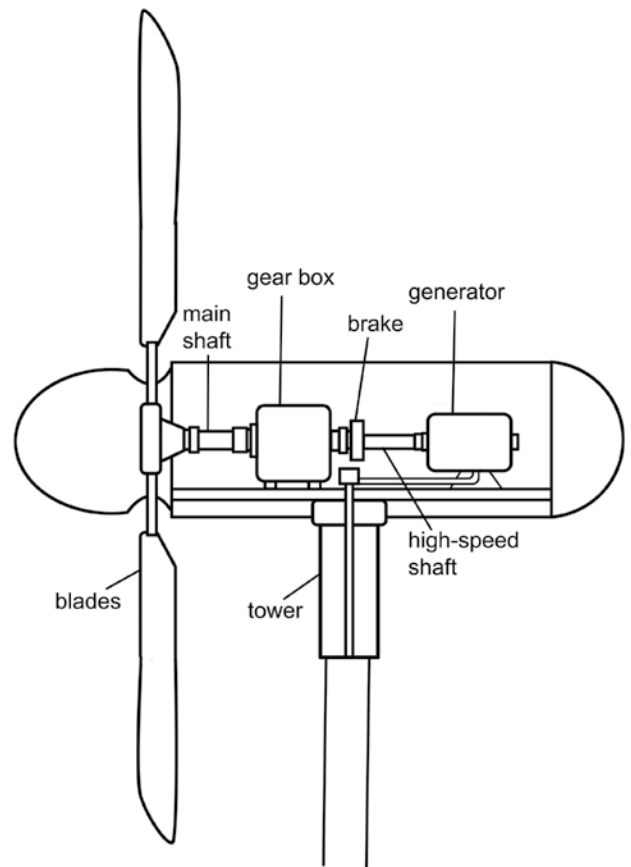
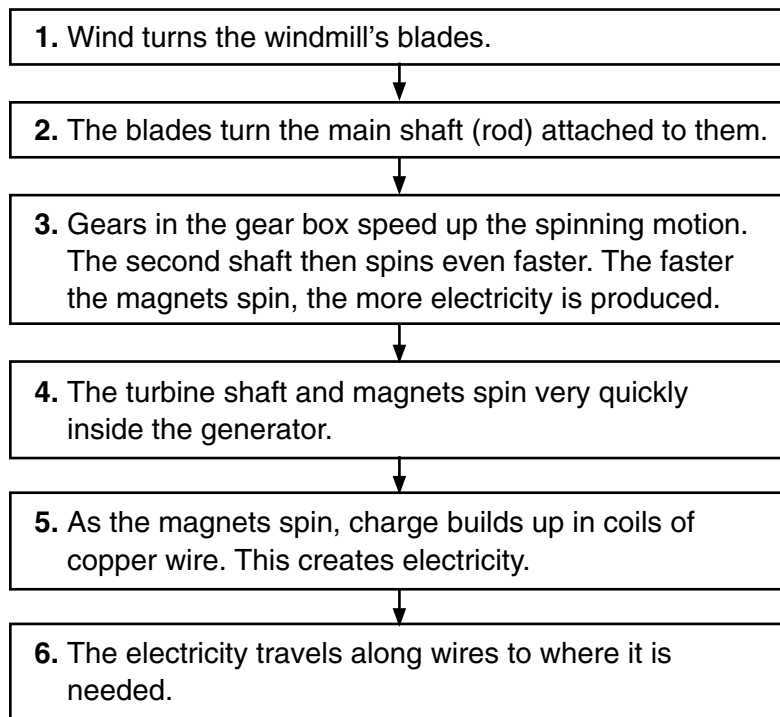


# Using Wind to Produce Electricity

People have used wind power for centuries. Early windmills turned grinding stones that crushed grain into flour. Today we use windmills to create electricity.

## How Wind Turbines Work

You can think of a wind turbine as the opposite of a fan. A fan uses electricity to make its blades turn, and the turning blades produce moving air. A wind turbine uses moving air (wind) to turn its blades. The movement of the blades produces electricity.



## Wind Farms

A wind farm is a place that has a lot of wind turbines. The area must be flat and open, with a lot of wind. A wind farm can be built over water, such as a lake or ocean.

Advantages of Wind Turbines	Disadvantages of Wind Turbines
<ul style="list-style-type: none"> <li>• create electricity</li> <li>• do not create pollution</li> <li>• many possible locations</li> </ul>	<ul style="list-style-type: none"> <li>• noisy</li> <li>• can be seen from quite far away</li> <li>• turning blades can kill or injure birds and bats</li> </ul>



## "Using Wind to Produce Electricity"—Think About It!

1. Why should wind turbine blades be very lightweight?

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2. Wind turbines do not pollute the environment when they operate. But the metal, concrete, and other materials used to make them must be produced. The turbines must also be built and sent to the site. How can producing these materials affect the environment?

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3. Review the information about hydroelectric power plants. In the chart below, list similarities and differences between a hydroelectric power plant and a wind turbine. (Use point form.)

Similarities	Differences