

Wind Power

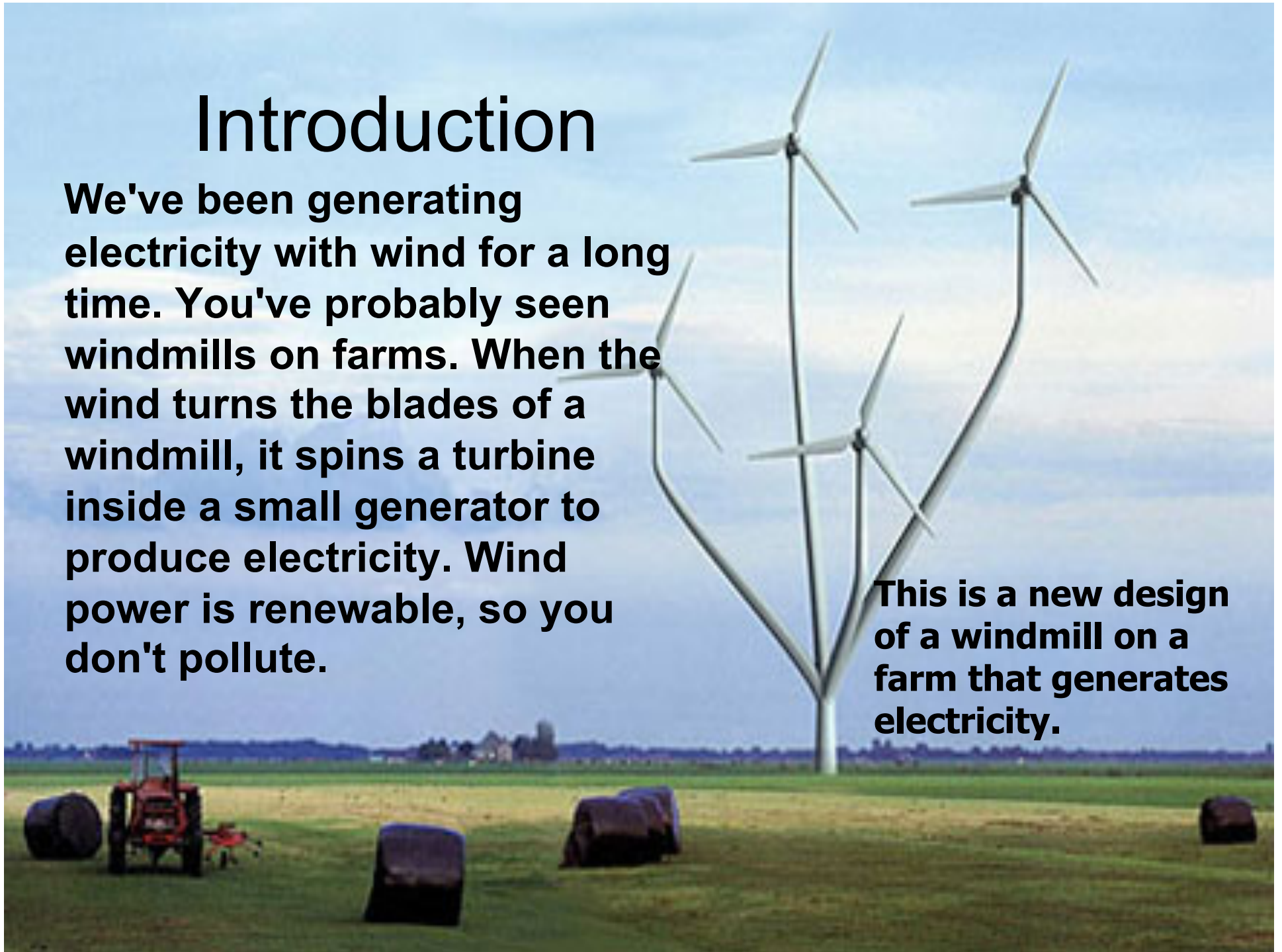
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Introduction

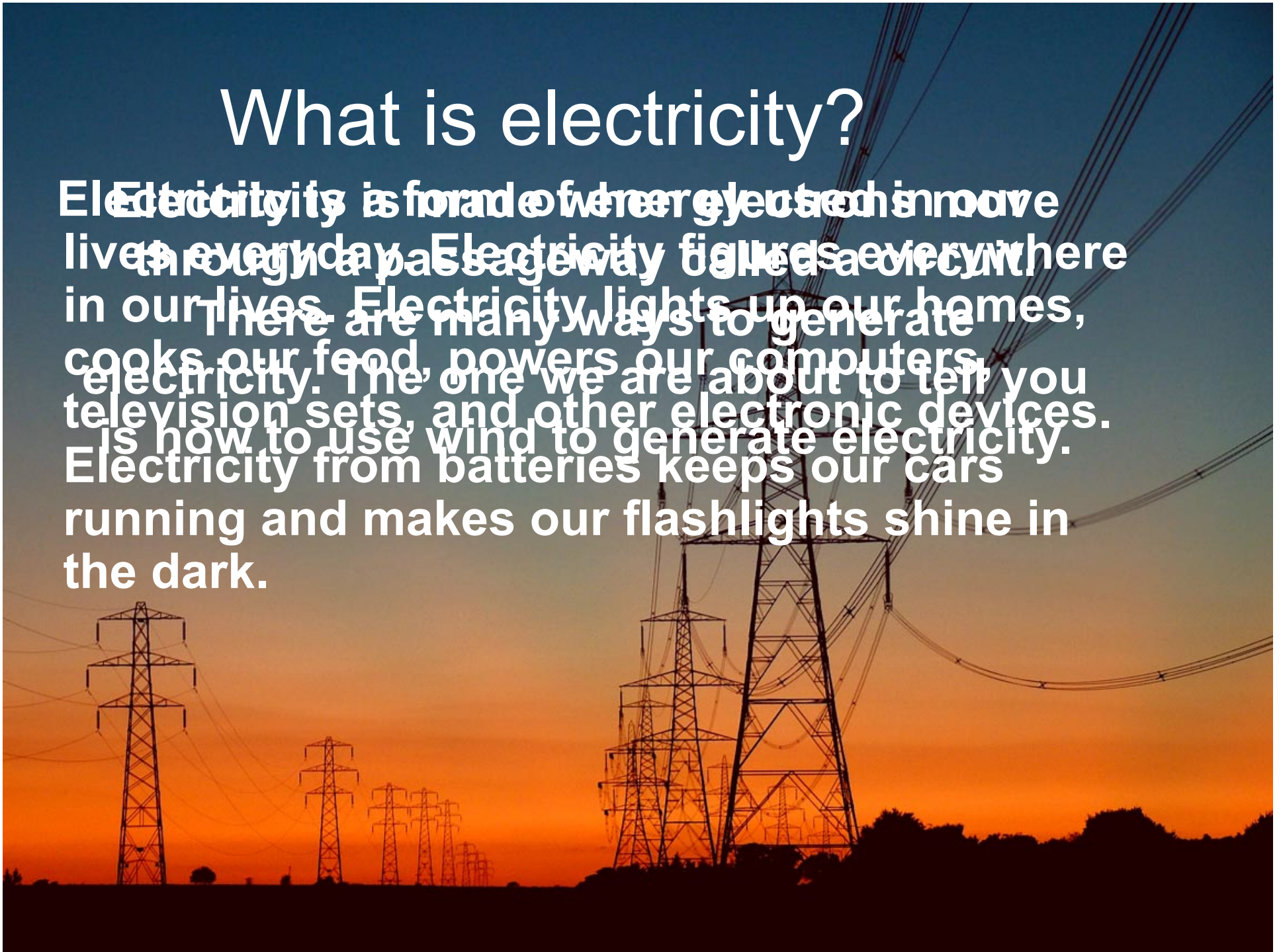
We've been generating electricity with wind for a long time. You've probably seen windmills on farms. When the wind turns the blades of a windmill, it spins a turbine inside a small generator to produce electricity. Wind power is renewable, so you don't pollute.

This is a new design of a windmill on a farm that generates electricity.



What is electricity?

Electricity is a form of energy that is used in our lives every day. Electricity flows through a pathway called a circuit. There are many ways to generate electricity. The one we are about to tell you is how to use wind to generate electricity. Electricity from batteries keeps our cars running and makes our flashlights shine in the dark.



Wind Farms

A windmill on a farm can make only a small amount of electricity - enough to power a few machines. To make enough electricity to give to many people, companies build wind farms with lots of huge wind turbines.

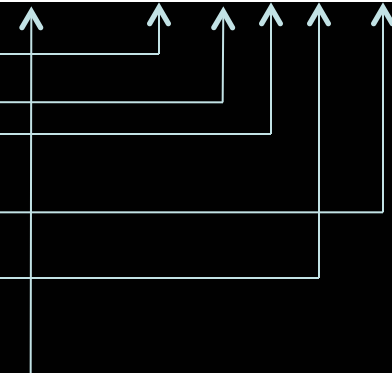
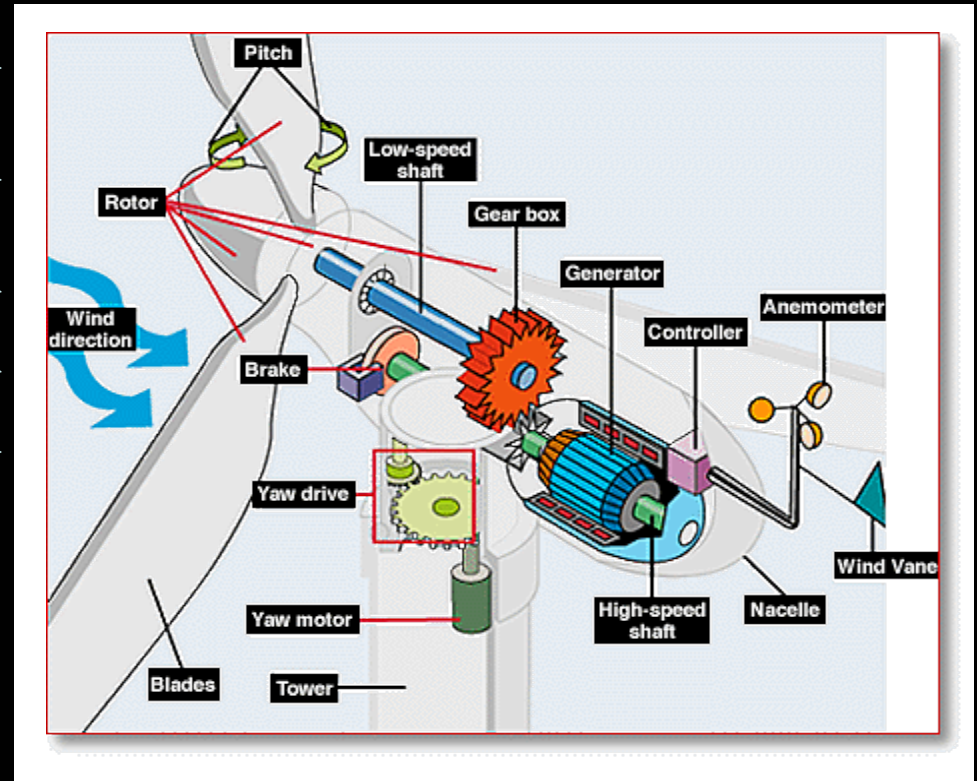
Wind farms are built in flat, open areas where the wind blows at least 14 miles per hour. There are usually wind farms on clear spaces and on the water.

A wind farm
in South
Korea



Parts of a Wind Turbine

- The pitch
- The rotor
- The brake
- The blades
- The tower
- The yaw drive
- The low spaced shaft
- The gear box
- The yaw motor
- The high spaced shaft
- The generator
- The controller
- The anemometer
- The nacelle



How Wind Turns Into Electricity

First, the wind turns the propeller.

Second, the propeller is connected to a magnet in the shaft in a coil of copper wire, which moves inside the wire which makes an electric current.

Third, some turbines have a transformer that increases the amount of electricity it produces.

Resources

- [Youtube.com](https://www.youtube.com)
- [EIAenergykids.com](https://www.eiaenergykids.com)
- World book
- google