How Do We Use Electricity?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

electric motor [uh•LEK•trik MOHT•er] a device that converts electrical energy into mechanical energy

When you think of a motor, think of energy and motion. An electric motor turns into mechanical energy, which includes motion. When an *electric motor* is operating, the energy is mostly the energy of motion.

electromagnet [ee•lek•troh•MAG•net] a device in which current produces magnetism

> *Electromagnet* and *electricity* start the same way. An *electromagnet* acts like a magnet only when electricity passes through it. When the electricity stops, it does not act like a magnet.

The electric motor is in here.

The electric motor turns electrical energy into the mechanical energy of the rotating blades.



If the wire is disconnected from the battery, the nail will no longer attract the paperclips.

generator [JEN•er•ayt•er] a device that converts kinetic energy to electrical energy

Generator and generation are in the same word family. Both have to do with producing things. Parents produce children, who make a new generation. A generator produces electricity.

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Science Concepts

Read the Ideas more than once. Do your best to remember them.

- 1. Electrical appliances change electrical energy into sound, thermal, and mechanical energy.
- 2. An electric heater changes electrical energy into thermal energy.
- 3. A lamp changes electrical energy into light energy.
- 2. An electric motor changes electrical energy into mechanical energy.
- 3. Wrapping a coil of electrical wire around an iron nail makes the nail a magnet.
- 4. When electric current flows, the nail will pick up small objects made of iron.
- 5. A device in which electric current produces magnetism is an electromagnet.
- 6. Electromagnets are used in electric motors, telephones, doorbells, and computers.
- 7. Generators change kinetic energy into electrical energy, which powers homes and businesses.
- 8. Huge electromagnets separate iron and steel objects from other objects in a junk yard.
- 9. Coal, a nonrenewable resource, is burned to heat the water that runs most generators.
- 10. Coal will run out over time, so it is important to use electricity carefully.