Name: _____ Date: _____

How Electricity Gets to Your Home

Circle group

You flip a switch, and a light comes on. But the electricity did not start in the wall. It began at a power plant, maybe many miles away.

At most power plants, a machine called a turbine spins. The turbine turns a generator. The generator makes electricity. Some plants use heat to make steam. The steam spins the turbine. Some use falling water or wind.

Electricity leaves the plant on thick wires. Tall towers hold the wires up high. The electricity goes a long way on these power lines.

Near your home, a transformer changes the electricity. It makes it safe to use. Then small wires take it to homes, schools, and stores. In the walls, wires go to each outlet and light.

Electricity can flow only in a loop called a circuit. You switch on a lamp. That closes the circuit. Now the electricity can flow through the bulb. You switch it off. The circuit opens, and the flow stops.

Questions

1. Where does the electricity in your home start?

_____

_____

2. What does a generator do?

_____

_____

3. Name two things that can spin a turbine.

_____

_____

4. What does a transformer do?

_____

_____

5. What is a circuit?

_____

_____

6. What happens to the circuit when you switch a lamp off?

_____

_____

7. Why are power lines up high on towers?

_____

_____

Words to know

power plant: a place where electricity is made
turbine: a machine with blades that spins when steam, water, or wind pushes it
generator: a machine that makes electricity
transformer: a device that changes electricity so it is safe to use
circuit: a loop that electricity can flow around

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Electricity Gets to Your Home

Triangle group

When you flip a switch, a light comes on. But the electricity did not start in the wall. It began at a power plant, sometimes many miles away.

At most power plants, a machine called a turbine spins. The spinning turbine turns a generator, which makes electricity. Some plants use heat to make steam that spins the turbine. Others use falling water or wind.

Electricity leaves the plant through thick wires. Tall towers hold the wires high above the ground, and the electricity travels long distances over these power lines.

Near your home, a device called a transformer changes the electricity so it is safe to use. Then smaller wires carry it to houses, schools, and stores. Inside the walls, wires reach every outlet and light.

Electricity flows only along a loop, called a circuit. When you switch on a lamp, you close the circuit, and the electricity can flow through the bulb. When you switch it off, the circuit opens and the flow stops.

Questions

1. Where does the electricity in your home begin?

_____

_____

2. What does a generator do?

_____

_____

3. What are two things that can spin a turbine?

_____

_____

4. What does a transformer do?

_____

_____

5. What is a circuit?

_____

_____

6. What happens to the circuit when you switch a lamp off?

_____

_____

7. Why do you think power lines are held high on tall towers?

_____

_____

Words to know

power plant: a place where electricity is made
turbine: a machine with blades that spins when steam, water, or wind pushes it
generator: a machine that makes electricity
transformer: a device that changes electricity so it is safe to use
circuit: a loop that electricity can flow around

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Electricity Gets to Your Home

Square group

When you flip a switch, a light immediately turns on. However, that electricity did not originate inside the wall. Its journey actually began at a power plant, which is sometimes located many miles away.

At most power plants, a machine known as a turbine rotates. The spinning turbine drives a generator, which produces electricity. Certain plants use heat to create steam that rotates the turbine, while others rely on falling water or wind.

Electricity departs the plant through thick cables. Tall towers support these wires high above the ground, and the electricity travels great distances along these power lines.

Close to your home, a device called a transformer adjusts the electricity so that it is safe for everyday use. Next, smaller wires deliver it to houses, schools, and stores. Concealed inside the walls, additional wires extend to every outlet and light fixture.

Electricity can flow only around a complete loop, which is called a circuit. When you switch on a lamp, you close the circuit, allowing electricity to flow through the bulb. When you switch the lamp off, the circuit opens, and the flow immediately stops.

Questions

1. Where does the electricity used in your home originate?

_____

_____

2. What is the function of a generator?

_____

_____

3. Identify two things that can rotate a turbine.

_____

_____

4. What does a transformer accomplish?

_____

_____

5. How does the passage define a circuit?

_____

_____

6. Explain what happens when you switch a lamp off.

_____

_____

7. Why do you think power lines are supported high above the ground on tall towers?

_____

_____

Words to know

power plant: a place where electricity is made
turbine: a machine with blades that spins when steam, water, or wind pushes it
generator: a machine that makes electricity
transformer: a device that changes electricity so it is safe to use
circuit: a loop that electricity can flow around

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: How Electricity Gets to Your Home

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: How Electricity Gets to Your Home

Easier · 161 words · Flesch-Kincaid grade 3.3

1. At a power plant.
2. It makes electricity when a turbine turns it.
3. Any two of: steam, falling water, wind.
4. It changes the electricity so it is safe to use.
5. A loop that electricity flows in.
6. It opens. The electricity stops, and the light goes out.
7. To keep the wires away from people and things. Accept any answer about safety.

Triangle: How Electricity Gets to Your Home

This passage · 165 words · Flesch-Kincaid grade 5.6

1. At a power plant.
2. It makes electricity when a turbine spins it.
3. Any two of: steam, falling water, wind.
4. It changes the electricity so it is safe to use in homes and other buildings.
5. A loop that electricity flows along.
6. The circuit opens, so the electricity stops flowing and the light goes out.
7. To keep the wires up and away from people and things. Accept any answer that mentions safety.

Square: How Electricity Gets to Your Home

Harder · 186 words · Flesch-Kincaid grade 8.8

1. At a power plant.
2. It produces electricity when a spinning turbine drives it.
3. Any two of: steam, falling water, wind.
4. It adjusts the electricity so it is safe for everyday use in buildings.
5. A complete loop that electricity flows around.
6. The circuit opens, so electricity stops flowing and the light goes out.
7. To keep the wires up and away from people and objects. Accept any answer that mentions safety.