

Name \_\_\_\_\_ Date \_\_\_\_\_

**Conductors:** Materials that **ALLOW** electricity to easily flow.

**Insulators:** Materials that **DO NOT ALLOW** electricity to easily flow.

**Instructions:** Based on the discussion about conductors and insulators, write a "C" next to the items you predict to be conductors of electricity and an "I" next to the items you predict to be insulators of electricity.

- \_\_\_ Silly putty
- \_\_\_ Aluminum foil
- \_\_\_ Popsicle stick
- \_\_\_ Yarn
- \_\_\_ Scouring sponge
- \_\_\_ Colored paper clip
- \_\_\_ Spoon
- \_\_\_ Rubber band
- \_\_\_ Wire
- \_\_\_ Paper clip
- \_\_\_ Eraser
- \_\_\_ Cotton
- \_\_\_ Coins
- \_\_\_ Rock



**STOP HERE . . . Complete remaining portion AFTER experiment**

Write a sentence describing a material that surprised you as being either a conductor or an insulator.

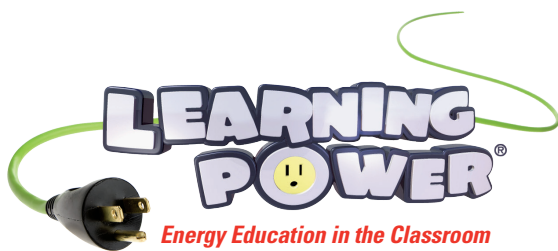
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For a power source to light a light bulb, there must be an uninterrupted pathway. This is called a **circuit**.

# Simple Circuit

## Lesson Language

**Circuit** – The complete path or part of the path of an electric current.

**Closed Circuit** – A complete path allowing electric current to flow.

**Conductor** – A material that allows electricity to easily flow.

**Electric Current** – A flow of electricity through a conductor (amps).

**Electricity** – The flow or movement of charges.

**Energy** – The ability to do work.

**Energy Efficiency** – Using energy and technology wisely; using less energy to provide the same level of performance, comfort, convenience, or light.

**Incandescent Bulb** – Traditional or “regular” light bulb.

**In-Home Energy Audit** – An in-home evaluation provided to educate customers on how to make their homes more energy efficient.

**Insulator** – A material that does not allow electricity to easily flow.

**Light-Emitting Diode** – known as an “LED” – A new technology bulb that uses less energy and gives off the same amount of light as a CFL bulb.



**Lumens** – The brightness of a light.

**Open Circuit** – An incomplete path that does not allow electric current to flow.

**Power** – Force or energy used to do an amount of work over time.

**Power Source** – The origin of force or energy used to do work (ex: generator and battery).

**Watt** – A unit of measure for electrical power (amps x volts).

**Watt Meter** – Device used to measure electric power in watts.

