

Conductors or Insulators?

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
- _____ Coin
- _____ 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.

Simple circuit language!

Instructions: For a power source to light a light bulb, there must be an uninterrupted pathway. This is called a circuit. Learn the circuit language below and match the correct words to the simple circuit picture!

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 tech 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 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.

