Current Electricity

* Static electricity forms when charges remain on an object for a while.
* Current electricity forms when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Current is formed when a device changes other forms of energy into electrical energy.

**CURRENT ELECTRICITY:**

* Results from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of
* The movement has TWO components:

**A. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - measured in Volts (v) –** similar to water pressure

**B.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - **measured in Amperes (A)** – similar to water flow

(how much water past a certain point in one second)

**VOLTAGE (V):**

* To make electrons move, they have to be pushed. They are forced along a metal in one direction.
* This push is called voltage or \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Measured in \_\_\_\_\_\_\_\_\_\_\_\_\_ by a device called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* It can be described as a measure of the electrical pressure produced by battery or power supply.

We get electrical energy from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_.

Two or more chemical cells joined together is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

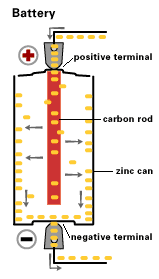


Cell (symbol in schematic diagrams)

**BATTERIES:**

Batteries produce a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to produce a difference in electrical potential energy between the positive and negative terminals.

Electrons are pushed from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ terminal to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ terminal.

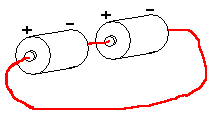


* The size of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

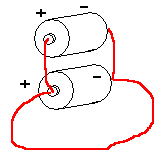
* Electrons at the negative terminal are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and therefore have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (pressure) and want to get away from each other.

Batteries can be connected in **TWO** ways:

1) Series: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Schematic Diagram:

2) Parallel: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Schematic Diagram:

**SHORT CIRCUIT:**

If a circuit is interrupted allowing a current to travel down an path, it causes too much in a wire. That is called a .

The excessive current can either cause the power source (like a ) to heat up, “short” and be destroyed; or a (if it is doing its job) to blow, breaking the flow of current in the circuit.

At home, a short circuit can be and to your appliances and electronic devices. The most common cause of a short circuit in the home is  touching when they shouldn’t.

