**Electricity & Circuits**

**Objective 1: I can explain the sources of Electrical Energy**

* Electrical energy: the movement of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Electrical Energy comes from many sources such as:
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – (Hydroelectric) & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- Both water and wind power are used to turn a \_\_\_\_\_\_\_\_\_\_\_\_ that creates \_\_\_\_\_\_\_\_\_\_\_\_\_ (green) electrical energy
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_ – (sun energy) heat energy is turned into electrical – green energy
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_– (energy from atoms) –green energy
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - (Batteries)

**Objective 2: I can describe series and parallel circuits**

* **Circuit**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through which \_\_\_\_\_\_\_\_\_\_\_\_\_\_ can \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* A simple circuit only need 3 things \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_
* Circuit Components

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**Types of Current**

* D/C\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Can \_\_\_\_\_\_\_\_\_\_\_ travel \_\_\_\_\_\_\_\_\_\_\_ distances
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ travel in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Electricity we get from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* A/C\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over \_\_\_\_\_\_\_\_\_\_\_\_\_\_ distances
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ directions forward and backward (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
	+ Electricity we get from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - anything you have to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Types of Circuits**

***Series Circuit*:**  current travels in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* + one break \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the \_\_\_\_\_\_\_ of current (if one light goes out they ALL go out)
	+ current is the \_\_\_\_\_\_\_\_\_\_\_\_\_throughout circuit

**SERIES CIRCUIT DRAWING**

* + - lights are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ each device **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the total voltage
		- get \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as lights are added



***Parallel Circuits***

* + current travels in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from negative to positive
		- one break \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ flow
	+ current \_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ branches

**PARALLEL CIRCUIT DRAWING**

* + takes path of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ resistance
	+ “\_\_\_\_\_\_\_\_\_\_\_\_\_\_” light would be \_\_\_\_\_\_\_\_\_\_
	+ each device receives the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_when lights are added



***Household Circuits***

* **Combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ too many devices can cause wires to \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Safety Features:**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - metal melts, breaking circuit
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - bimetallic strip bends when hot, breaking circuit