**Electricity Flashcards**

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| Electromagnet | Is created when electric current flows through coils of a wire that are wrapped around an iron object (like a nail). It has to be connected to a battery for the iron object to be magnetic. |
| Open Circuit | A circuit that has a break in it, like wires that are not touching, or a switch that is not closed. Electric energy can’t flow all of the way through it. It is incomplete. |
| Closed Circuit | A circuit that is complete so that the electrons can move through freely and power light bulbs, electromagnets, motors, etc. |
| Chemical Energy | Energy inside of a battery. It is the start of a closed circuit. |
| Electrical Energy | Energy inside of a wire. Chemical energy transforms into this type of energy. |
| Transformation of Energy | Changing the form of energy.   1. (Light bulb) Chemical energy -> electrical energy->thermal energy -> light energy 2. (Electromagnet) chemical energy -> electrical -> magnetic 3. (Buzzer) chemical energy -> electrical energy-> electromagnetic -> motion -> sound |
| Insulator | An object that doesn’t let electrons move through it.  Ex. rubber, plastic, cloth, glass |
| Conductor | An object that lets electrons move through it.  Ex. metal, water |
| Flow of Current | The movement of electron (energy) |
| Thermal (heat) Energy | Examples of \_\_\_\_\_\_\_\_\_ being used are a microwave, a light bulb, stove, oven, heater, hair dryer, toaster, dryer |
| Magnetism | Invisible field that can attract iron, steel, and cobalt objects. Ex. paperclip, safety pin |
| Magnetic Poles | North and south seeking poles. The strongest part of a magnet is two poles. |
| Testing for conductors/insulators | Make a circuit, detach one wire from the circuit and try to place the object in, to see if a bulb lights. Make sure both sides of the object are touching wire. |
| Attract | To pull together |
| Conduction | Energy going from one place to another. Ex. 1. The heat from the stove top makes the bottom of a pan warm. 2. A dryer makes wet clothes warm. 3. If you touch a light bulb, the heat gets to your hand and could burn you. |
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