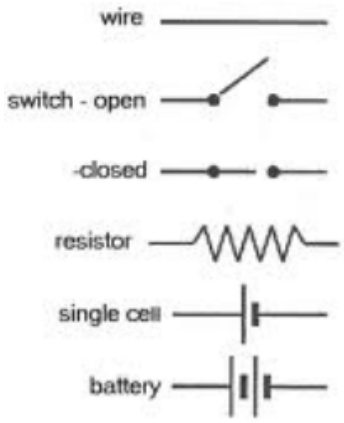
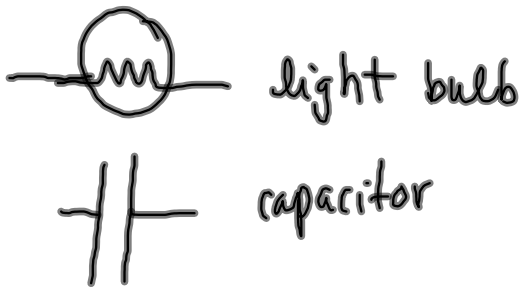
Chapter 18: Circuits

Schematic diagram - a representation of a circuit that uses lines and symbols.

Allows us to determine how the parts in an electrical device are arranged.



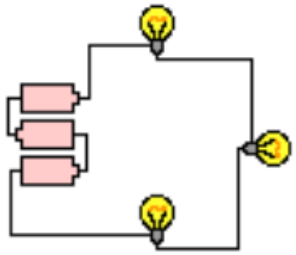


The filament of the light bulb acts as a resistor.

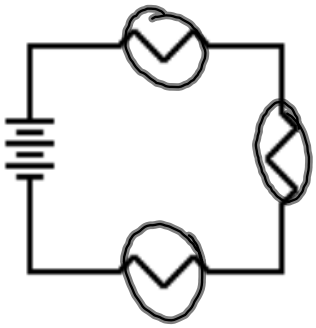
The bulb, battery, switch, and wire form an electric current (path through which charges can flow).

Any element or group of elements in a circuit that dissipates energy is called a load. (causes energy to be lost usually in the form of heat)

Drawing of Circuit

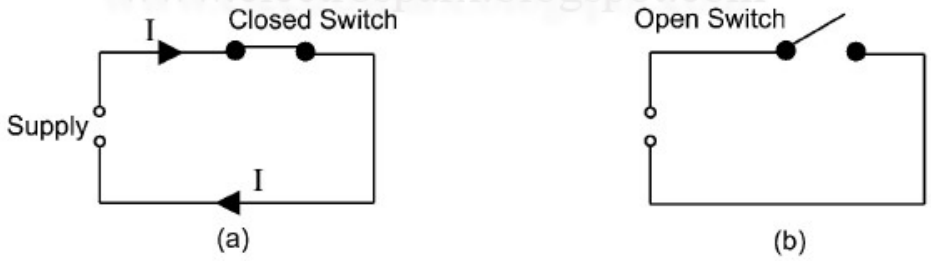


Schematic Diagram of Circuit



Closed circuit - the path form one battery terminal to another is complete (a potential difference exists and electrons can flow)

Open circuit - incomplete path where current cannot flow.



Short Circuits

When the current contains little resistance to movement of charges, a short circuit can occur.

Wires that carry too much current can begin to overheat, melt, or even cause fires.

The battery is the source of potential difference.

Any device that increases the potential energy of charges in a circuit is a source of emf. (energy per unit charge supplied by a source)