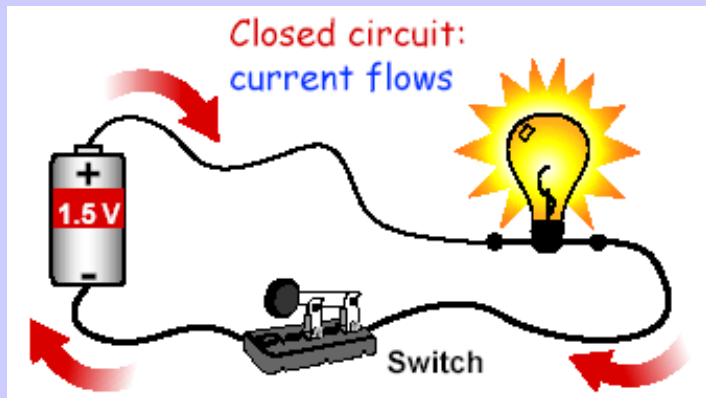


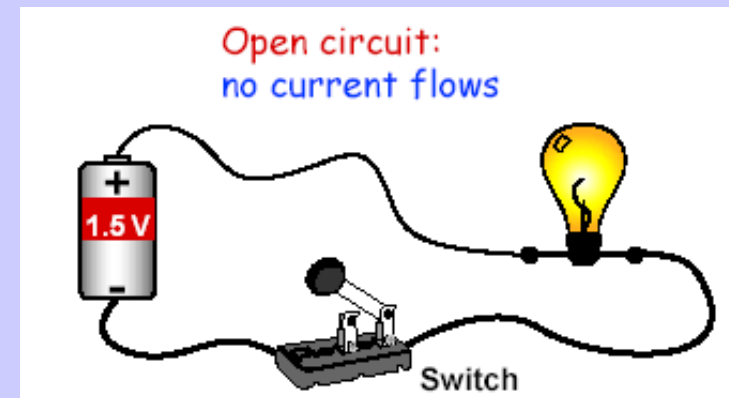
Chp 6

Circuits

Charge



Circuit



- Electricity is the flow of electric current in wires, motors, lights bulbs, and other devices
- Electric current carries energy great distances
- Electric circuits provides a path through which electricity flows

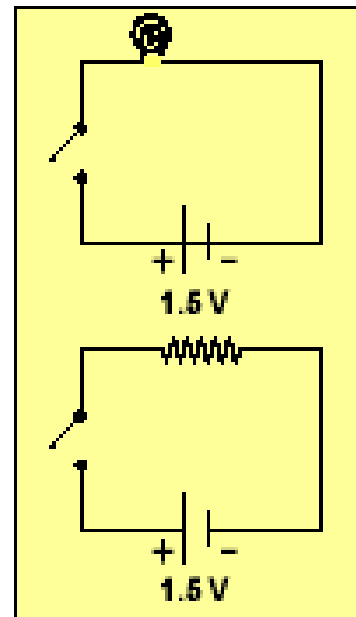
Circuit Diagrams

- A circuit diagram is a drawing using special symbols to represent parts of a circuit

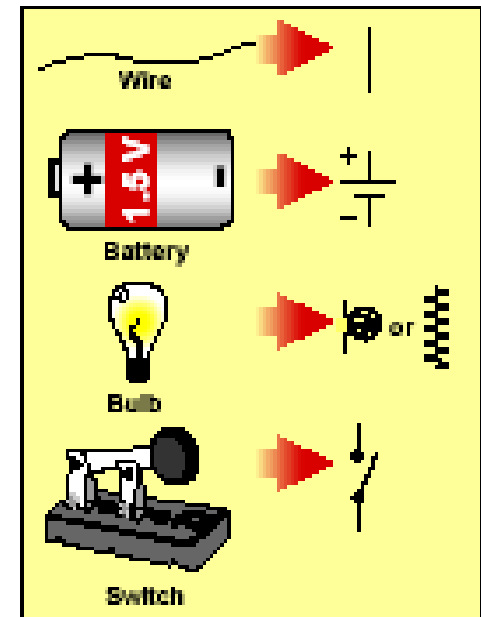
"Real life" example



Circuit diagrams are used to represent "real life."



Circuit diagrams



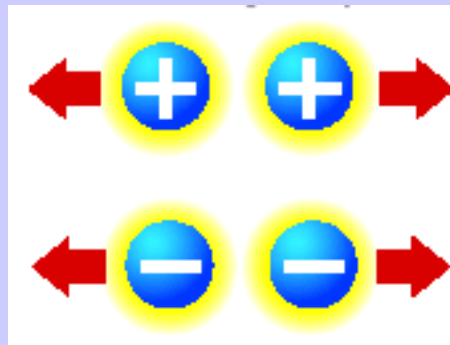
Symbols to use

Charge

- Electric charge is a fundamental property of matter
- There are two different charges: positive charge and negative charge



- Like charges repel



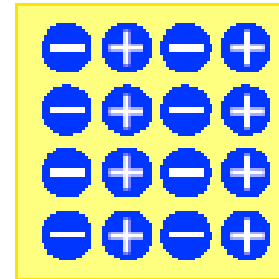
- Unlike charges attract



Static Electricity

- Most matter is neutral with equal amounts of positive and negative.
- If a material or object carries excess positive or negative charge it is electrically charged
- Static electricity is the buildup of positive or negative charges

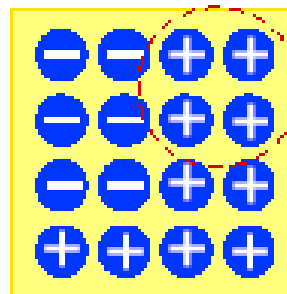
This object is **neutral**.



positive charge +8
negative charge -8

total 0

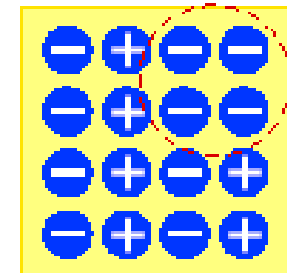
This object is **positively charged**.



positive charge +10
negative charge -6

total +4

This object is **negatively charged**.



positive charge +6
negative charge -10

total -4

Coulomb

- Electric charge is measured in coulombs.
- Protons have a positive charge of 1 coulomb
- Electrons have a negative charge of -1 coulomb

Electroscope

- An electroscope is a device used to detect charged objects
- The leaves in a charged electroscope attract or repel each other depending on the charge nearby

