

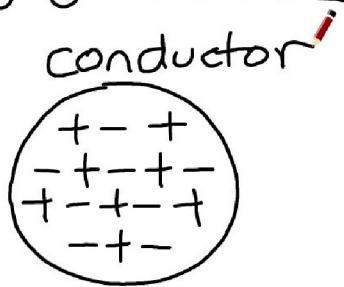
Methods of charging

Triboelectricity

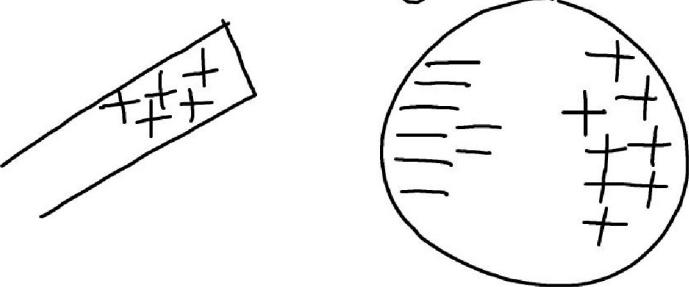
- 1) Friction - Rubbing electrons off (Frictional electricity)
- 2) Conduction - moving electricity through direct contact. ("plugged in")
- 3) Induction - charge



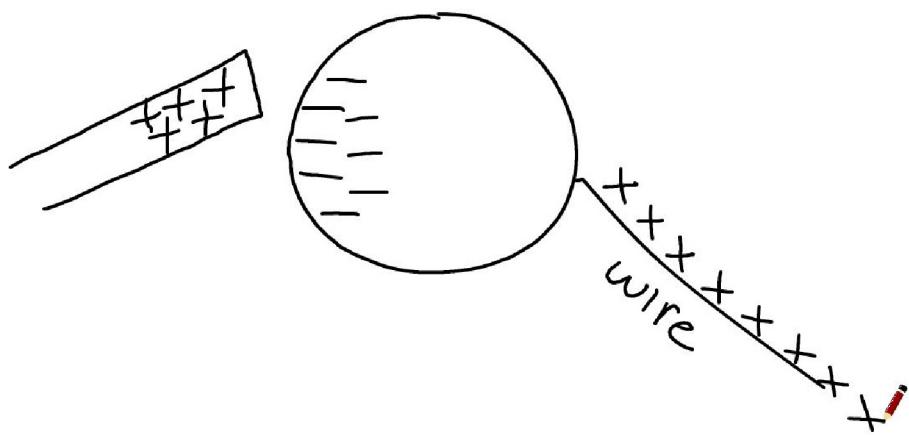
Charging by induction



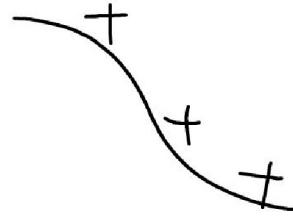
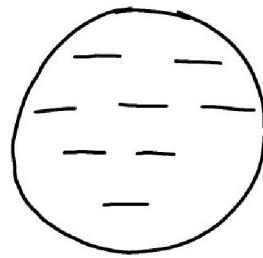
Charging by Induction



Charging by Induction



Charging by Induction



Coulomb's Law + Electric Force

Forces $k = \text{electric constant} = 9 \times 10^9$

Q_1 & Q_2 are the charges on the objects

$d = \text{distance}$



$$F = \frac{kQ_1 Q_2}{d^2}$$

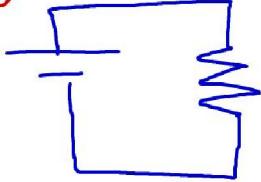
Types of Circuits

Closed

completely closed

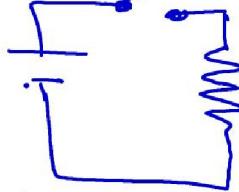


generate heat



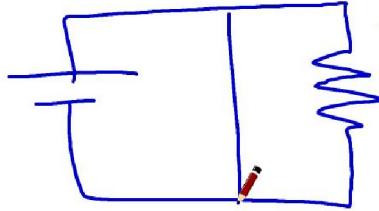
Open

No electricity flows



Short

Don't go through resistors



Capacitors - hold charge

Resistors - Resist/have charge

Batteries



Ohm's Law

$$V = I R$$

V = Voltage (V, volts)

$$I = \frac{V}{R}$$

I = Current (A, amperes)

$$R = \frac{V}{I}$$

R = Resistance (Ω , Ohms)

