

Ch. 4, Lesson 1 pE90

Static Electricity

- Two Kinds of Charges

- Matter has mass, volume and electric charge

- charge can be positive, negative or no charge at all (neutral)

- Charge = measure of extra positive or negative particles that an object has

- an object with equal positive and negative particles = neutral

- rubbing one object to another transfers charges

- Static electricity = charge that stays on an object

- static = not moving

- Separating charges

- negative charges move / pull away

- ex: rubbing balloon

- combing hair

- clothes in the dryer

Electric Forces

- electric force = push / pull between objects with different charges

• pull = attract

• push = repel

• electric field = space where electric forces occur around an object

* positive attracts negative *

* positive repels positive *

Lesson 2 - What is an electric current?

pg. E94 - E99

Electric Current

* Moving Charges

- current = moving charges
- electric current = flow of electric charges

- circuit = path made for electric current

- electric cell = supplies energy to move charges through a circuit
ex: battery

* Controlling Current

- conductor = material that current can pass through easily
ex: metals

- insulators = material that current cannot pass through
ex: plastic covering wire / rubber

- Switches that turn on and off use conductors / insulators to make / break a circuit

- resistor = resists but doesn't stop the flow of current
ex: coil on flash light

* Series and Parallel Circuits

- Series circuit = circuit with one path for the current
 - parallel circuit = has more than one path for current to travel
- ex: christmas lights → one burns out but others continue to stay on