Name: _____
Date: _____

7.2 Electrical Force

A force is a _____ acting on an object – electric force can do both, without actually touching the object
Electric Force is an _____ force – a force can be applied without touching

Laws of Static Charge

What happens when you put _____ charges together? ie/ two positives
- _____

How about _____ charges?
- _____

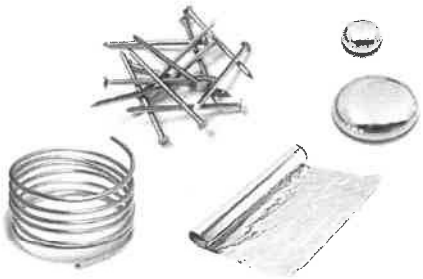
What about a _____object (positive and negative charges are balanced)
- Attracted to_____ objects _____

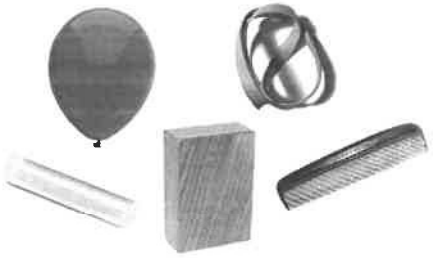
Charles Coulomb observed that electric force is _____to charge
- _____the amount of charge _____ electric force
- _____the amount of charge, likewise,_____ electric force

Coulomb also observed that if you _____ the distance between charged objects, you _____ the electric force
- _____ distance will _____ the electric force

_____ – ability of materials to allow electrons (-) to move freely
_____ – a material that allows electrons to change positions
- In a conductor – electrons (-) are NOT as tightly bound to nuclei (+), therefore can move away _____

_____: a material that holds on to its electrons, electrons are not able to move easily
- Electrons _____ are bound tightly to the nuclei _____ so they resist movement





Charging by_____ (see page 259)

- Charging through _____
- Electrons move to a location where there is less of them

Charging by _____ (see page 260)

- Let's say we have a (-) charged object that is brought close to a neutral object (objects do NOT touch)

- Within the neutral object, the like charge (-) will be _____ away from the charged object (also (-))
- This results in the opposite charge (+) remaining on the side _____to the charged object (-)

- Overall the neutral object is still neutral, it just has a positive pole (end) and a negative pole
- The neutral object is then connected to the ground, electrons (-) flow further from the charged into the _____

- When ground connection is _____the object will then have the _____ charge (+) to that of the charged object