**Electric Force**

When something experiences a push or a pull, it is experiencing a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. All forces are measured in units called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. One **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is approximately enough force needed to lift a medium sized apple off the ground.

As you've seen in the labs, there has been pushes or pulls on our electroscopes caused by objects charged with static electricity. This is called an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

Definition: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a push or pull caused by electric charges.

The electric force can either pull (when two objects attract) or push (when two objects repel).

* What is an example of two charges that will experience an electric force that will pull?
* What is an example of two charges that will experience an electric force that will push?

A French physicist named Charles Coulomb, was the first to recognize the relationship between **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. These relationships form the basis for **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and may be simplified as follows: *The strength of the electric force increases with increasing electric charges and decreases with increasing distance*.

In simpler terms:

Ex. Questions

* A negatively charged ball will roll **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** a negatively charged rod. To make the ball roll faster I should move the rod **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* A positively charged balloon will float **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** a negatively charged Van de Graaff generator. To make the balloon float faster I should **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the charge on the Van de Graaff generator.