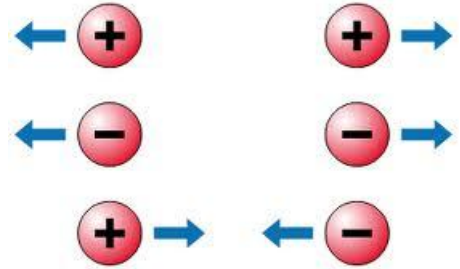


## The Law of Electric Charges: Coulomb's Law

A charged object exerts an electric force that can be attractive or repulsive.

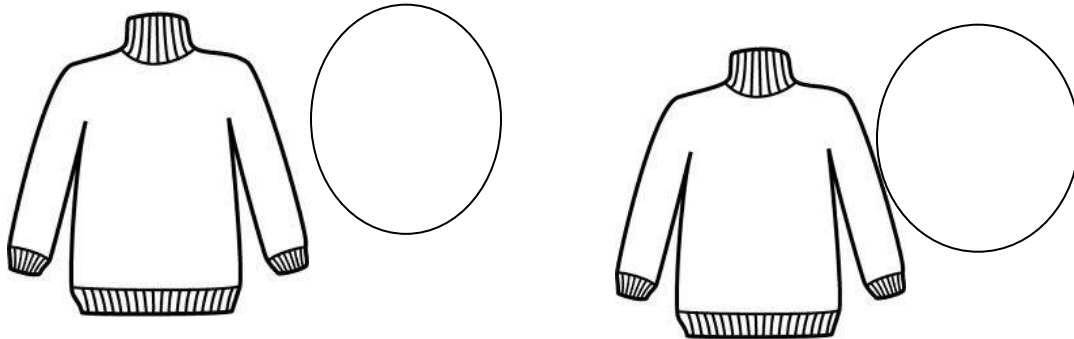
- Like charges \_\_\_\_\_ each other
- Opposites \_\_\_\_\_

The strength of the force is related to the amount of charge on and the distance between the objects.



**pHet simulation:** We will use the Balloon pHet to help us answer these questions:

1. How do we get a charge?



Both are neutral (no charge) Now sweater is \_\_\_\_\_ and balloon is \_\_\_\_\_

We are charging by \_\_\_\_\_

Why is the balloon now attracted to the sweater?

2. Charge up the balloon. Charge up a 2<sup>nd</sup> balloon. Bring the 2 balloons close together. What happens? Why?

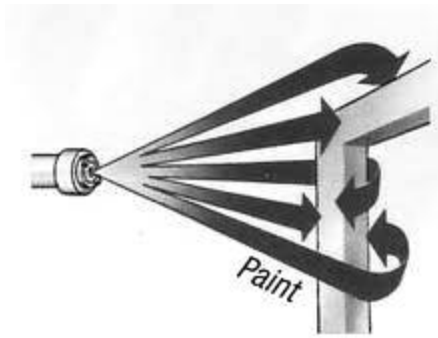
3. Look at 1 charged balloon. What is its overall charge? \_\_\_\_\_

Does it have only electrons? \_\_\_\_\_

Why is it 'negatively charged' if it has positive protons?  
\_\_\_\_\_

### **Using Static Charges**

Label the diagram. Use your text pg. 470



Electrostatic painting is better than regular painting. Why?

Reason #1 \_\_\_\_\_  
\_\_\_\_\_

Reason #2 \_\_\_\_\_  
\_\_\_\_\_

Classwork:

Define static electricity: (Find it in text section 11.1)

\_\_\_\_\_

Answer # 3, 4, 5, 6 on lined paper. You may draw diagrams if that helps.