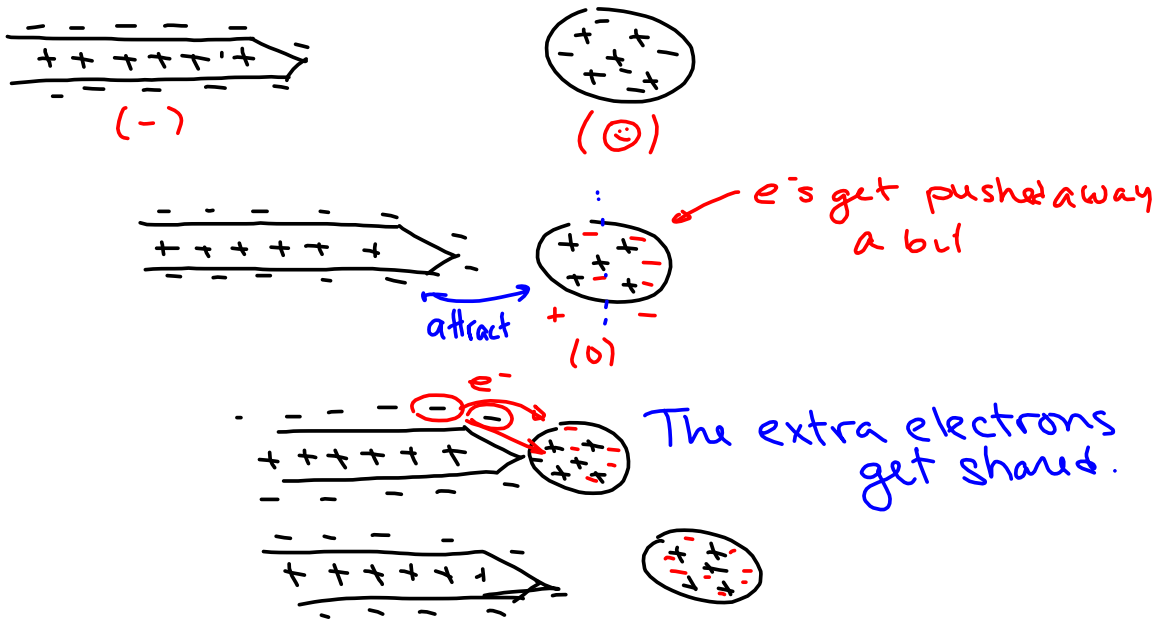
Methods of Charging

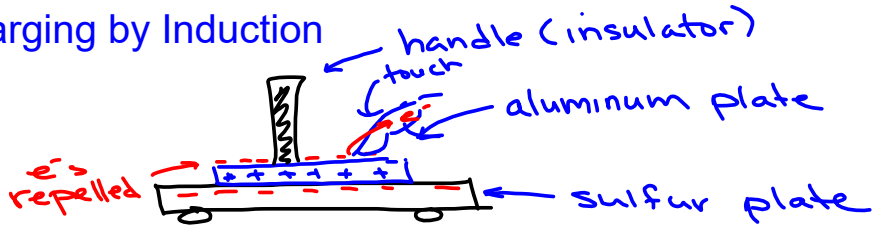
1. Charging by friction - by rubbing 2 different materials together, one becomes + and the other −.

This is because, just like atoms, one material likes to hold onto e⁻s more than the other.

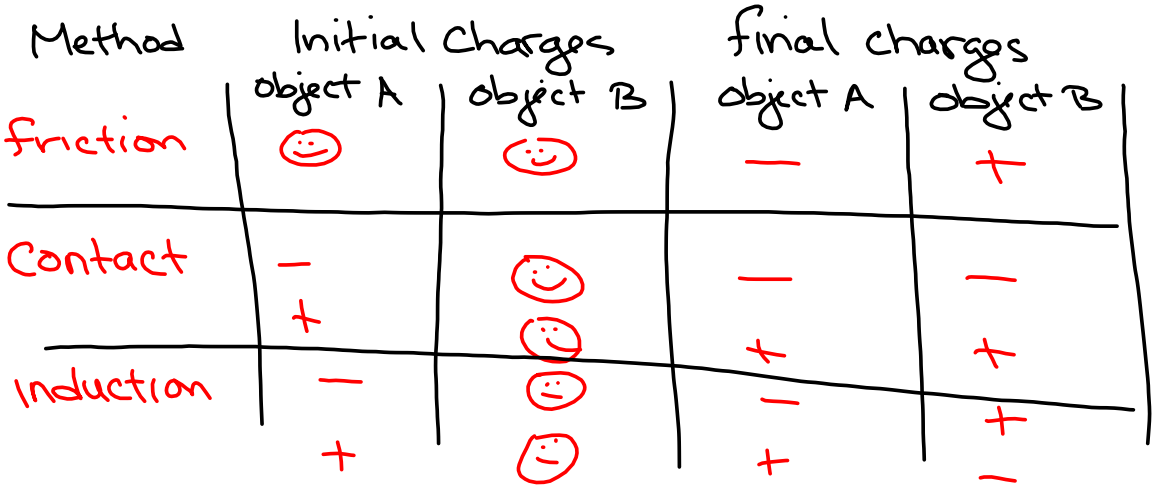
2. Charging by contact (conduction)



Charging by Induction



When we touch the plate, the e⁻s go into our fingers leaving the aluminum plate positively charged.

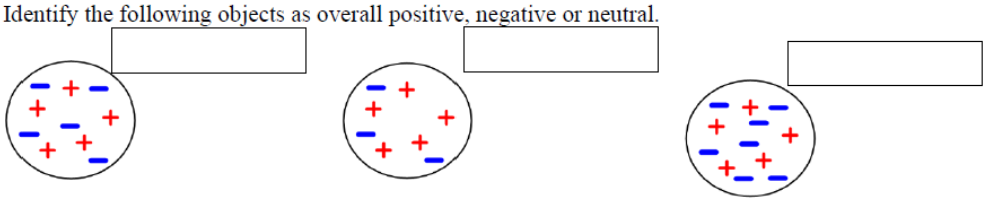

Method
Initial Charges
object A
object B
final charges
object A
object B
friction
Contact
Induction

Science 10 **Introduction to Electricity** **Name** _____

1. What are the three subatomic particles and their charge?

2. A) How does an object become negatively charged? _____
   B) How does an object become positively charged? _____

3. Identify the following objects as overall positive, negative or neutral.

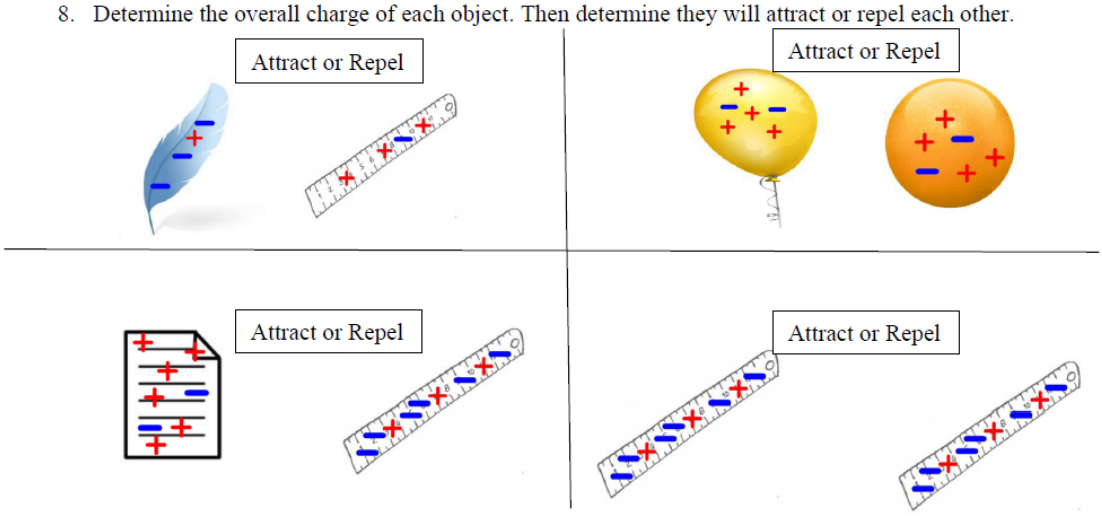


Use your notes and the internet to answer the following questions

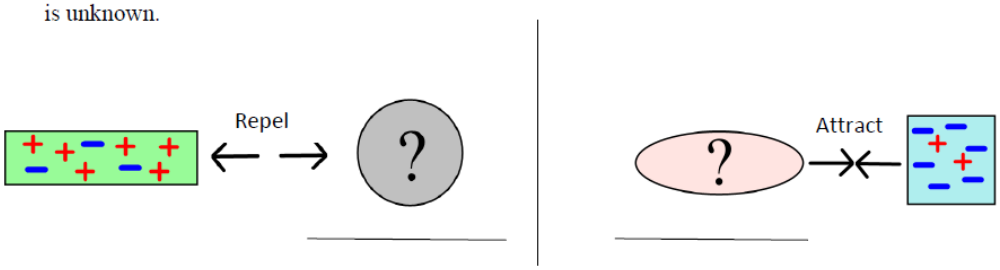
4. Define "static". _____
5. Define "electrostatics". _____
6. What word is used to describe an object that is electrically uncharged? _____
7. A) The _____ of Electric _____ states that "like" charges _____ one another and "_____" or opposite charges _____ one another.
   B) Indicate whether the two charges will attract or repel one another.

Positive and positive	
Positive and negative	
Negative and negative	
Positive and neutral	
Neutral and negative	

8. Determine the overall charge of each object. Then determine they will attract or repel each other.



9. We can determine the charge of an object by observing if it is attracted or repelled by an object with a known charge. For the two examples below, determine the possible charge(s) of the object whose charge is unknown.



_____ _____

10. A piece of plastic is positively charged. Will it be attracted or repelled when it is brought near a positive piece of glass. _____

11. What is the charge on an object if it is attracted to a positive object? _____