

Activity – Charging by Induction**Purpose:**

To determine what kind of charge is induced on a neutral object when it is approached by a charged object.

Background:

Use your text on pg. 407 to explain what charging by induction is. Put your answer in the space provided.

Charging by induction:

Materials: metal-leaf electroscope
vinyl strip (opaque)
acetate strip (clear)
paper towel

Procedure:

1. Move a negatively charged polyethylene strip toward and then away from the metal-leaf electroscope. Do this several times. Record observations.
2. Repeat step 1 using a positively charged acetate strip. Record observations.
3. Move a negatively charged polyethylene strip toward the grounded metal-leaf electroscope (do not touch the electroscope). With the charged strip close to the metal ball remove the ground and then remove the strip. Record observations.
4. Repeat step 2 using a positively charged acetate strip. Record observations.

Observations:

Your observations should be diagrams with a brief explanation.

Step	Observations
1	
2	

