SNC 1DI

Date: _____

Activity – Charging by Contact

Purpose:

To determine what kind of charge is transferred when a charged object contacts an uncharged one.

Background:

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

Charging by contact:
when electrons transfer from the charged object to the neutral object that it touches

Materials: pith-ball electroscope
vinyl strip (opaque)
acetate strip (clear)
paper towel

Procedure: Refer to the overhead for the steps to follow.

Observations:

Step	Procedure	Observations
1	Negatively charged vinyl brought near uncharged pith ball.	attracts neutral pith ball
2	Positively charged acetate brought near uncharged pith ball.	attracts neutral pith ball
3	Negatively charged pith ball contacts pith ball, is removed and brought near pith ball again.	repels negative pith ball
	Positively charged acetate brought near same pith ball.	attracts negative pith ball
4	Positively charged acetate contacts pitch ball, is removed and brought near pith ball again.	repels positive pith ball
	Negatively charged vinyl brought near same pith ball.	attracts positive pith ball

Analysis:

1. **What happens when a charged object is placed near, but does not touch, the neutral pith-ball electroscope?**

the charged object will attract the neutral pith ball

2. **What can you infer about the transfer of electric charge when the pith ball is touched by:**

(a) A negatively charged object

when a negatively charged object touches a neutral object, electrons move to the neutral object, making it negative

(b) A positively charged object

When a positively charged object touches a neutral object, electrons move from the neutral object, making it positive

3. **Use diagrams to help illustrate your observations in steps 3 and 4.**