

## Lab: Investigating Static Electricity

### Materials:

1. Glass Rod (clear, hollow)
  2. Plastic Rod (clear, solid)
  3. Rubber Rod (black, solid)
  4. Silk friction pad
  5. Flannel friction pad
  6. Fur friction pad
  7. Electroscope (aluminum leaf)
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Procedure: Charge the electroscope by CONTACT with the rubber rod, rubbed on fur. You can assume that the charge on the rubber is negative (-).

(A) Test the charge developed by the glass rod rubbed with silk. What effect does it have on the electroscope? Does the charge on the glass rod appear to be + or - ?

(B) Test the charge developed by the plastic rod rubbed with flannel. What effect does it have on the electroscope? Does it appear to be + or -?

(C) Test the charge developed by the plastic rod rubbed with silk. What effect does it have on the electroscope? Does it appear to be + or -?

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Procedure: Charge the electroscope by INDUCTION using the rubber rod, rubbed on fur. What charge will the electroscope have?

(D) Now test the charge developed by the plastic rod rubbed with silk. What effect does this have on the electroscope? Does this charge appear to be + or -? Does this agree with or contradict the conclusion you reached in question C above?

(E) Now test the charge on the rubber rod rubbed on fur. (See F below).

(F) Now test the charge on the rubber rod rubbed on flannel. Does the rubber rod always seem to receive the same sign charge, or does it vary? (See E above)

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### Conclusion:

For each item (a,b,c,d,e,f)

Because the electroscope was charged {+,-} and the leaves {diverged, collapsed, did not respond}, I conclude that the \_\_\_\_\_ was charged {+,-, neutral}.