

3.1 Investigation Investigating Electric Charges

Report

How I Am Being Assessed _____

In this investigation, you will electrically charge a variety of substances and identify some properties of electric charges.

Question

How are uncharged and charged substances affected when they are near one another?

Prediction

(a) Predict what will happen when you bring two charged objects near one another.

a neutral thing.

Observations

Record your observations in Table 1.

Table 1

Electric charge test	Effect on scraps of paper	Effect on stream of water	Effect on pith ball
ebonite rod rubbed with fur <i>as CD</i>			
Lucite rod rubbed with silk or polyester <i>plastic</i>			

Analysis and Conclusion

(b) Was your prediction correct? Explain why, or why not, based on your observations.

(c) Compare the results of the investigation for the ebonite and Lucite rods on the scraps of paper, water stream, and pith ball.

(d) What happens when charged objects are placed near uncharged objects?

(e) What happens to the force between charged and uncharged objects as the distance between them decreases? Support your answer with observations from the investigation.

(f) List the properties of electric charges you have identified in this investigation.