

Unit 5B Static Electricity

Questions to Consider

Name:

Date:

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas, and big questions.

Objective(s):

- Define conductors and insulators and what makes them different
- Understand charging by friction, electrical conduction and induction

Notes:

During the video segment, use words, phrases, or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"

Answer the following.

1. What is an insulator? Give two examples of insulating materials.

2. What is a conductor? Give three examples of conducting materials.

3. What is the difference between charging an object by conduction and charging by induction?

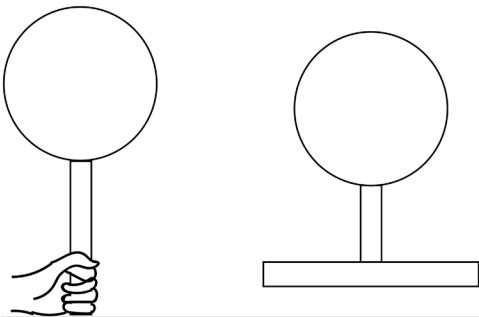
4. What does it mean when we say an object is 'grounded'? What happens to excess charge on a grounded object?

5. After rubbing a balloon with a towel, the balloon will be attracted to wall surfaces even though the wall has no net charge. What makes this attraction happen?

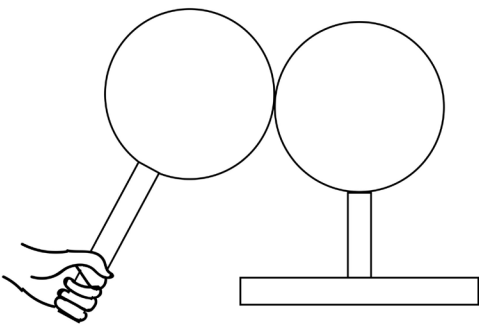
6. An uncharged metal sphere hangs by an insulating thread. When you bring a positively-charged rod near, the sphere is pulled toward the rod. But, the instant the two objects touch, the sphere immediately moves away. Why?

7. Holding a wooden dowel attached to positively-charged metal sphere, you a) bring the sphere near an insulated, uncharged metal sphere, b) touch the spheres together, then c) pull the sphere away out of contact. Draw the electrical charge distributions on the spheres below:

a)



b)



c)

