

SkillCheck

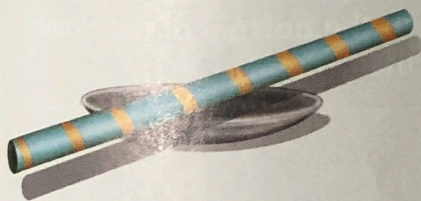
- Observing
- Classifying
- Communicating
- Evaluating information

Safety

- Handle the glass rods with care.

Materials

- watch glass
- 2 plastic straws
- wool
- 2 acetate strips
- paper towel
- 2 glass rods
- plastic bag
- 2 ebonite rods
- fur

**Question**

How do charged objects affect each other?

Procedure

1. Copy the following table into your notebook.

Charged Object on Watch Glass	Charged Object in Hand			
	Plastic straw	Acetate strip	Glass rod	Ebonite rod
Plastic straw				
Acetate strip				
Glass rod				
Ebonite rod				

2. Place a watch glass, curved side down, on your desk. Rub along a plastic straw with wool. Place the straw on the watch glass so that it is free to rotate.
3. Rub along the second plastic straw with wool. Slowly bring the end of the rubbed straw close to the straw on the watch glass.
4. Record your observations in your table. Use the words "attract" or "repel."
5. Rub along the acetate strip with paper towel. Bring the strip towards the plastic straw on the watch glass. Record the interaction between the two objects in your table.
6. Repeat step 5, using the glass rod rubbed with a plastic bag.
7. Repeat step 5, using the ebonite rod rubbed with fur.
8. Repeat steps 2 to 7, placing the other charged objects, one at a time, on the watch glass.

Analyze

1. Analyze the data you collected. When two identically charged objects were brought together, such as the two plastic straws, how did they interact with each other?
2. List all the pairs of objects that interacted in the same way as identically charged objects.
3. List all the pairs of objects that interacted in an opposite way to identically charged objects.

Conclude and Apply

1. Based on your observations, state:
 - (a) how two objects with the same charge interact
 - (b) how two objects with opposite charges interact