Name _____ Date_____

Predicting Conductors and Insulators

Purpose: To identify conductors and insulators.

Materials

For Tester:

- Battery, 1 per pair of students
- Wires, 3 per pair of students
- Bulbs, 1 per pair of students
- Bulb holders, 1 per pair of students
- Battery holders, 1 per pair of students

Testing Materials:

- Toothpick
- 1" piece of straw
- Paper clip
- 1" x 1" piece of aluminum foil
- Wooden pencil stub sharpened at both ends
- Marble
- Piece of paper
- 1" piece of chalk
- Brass paper fastener
- Penny, dime, nickel, and quarter
- 1" x 1" piece of plastic screen
- 1" x 1" piece aluminum screen
- Styrofoam peanut

Directions:

1. Set up the tester as your teacher demonstrated.
2. Predict whether the bulb will light using each of the materials in the table on the following page.
3. Test each item and record whether the bulb lights. If possible, note whether the bulb is bright or dim.
4. If there is time, experiment with various objects around the room. Remember to predict whether the bulb will light before testing each new object!

Results

Item	Predictions: Will the bulb be on or off? Why do you think this will happen?	Actual Results
Toothpick		
Straw		
Paper clip		
Aluminum foil		
Pencil stub		
Marble		
Paper		
Chalk		
Brass paper fastener		
Penny		
Dime		
Nickel		
Quarter		
Plastic screen		
Aluminum screen		
Styrofoam peanut		

Conclusion

1. In your own words, what is a conductor?

2. In your own words, what is an insulator?

3. If you were to test the different parts of the bulb (base, glass, etc.) what parts would be conductors? What parts would be insulators? What about the glass itself?