

Name: _____

Date: _____

Per: _____

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Conductors and Insulators Lab

Purpose: Identify conductors and insulators and observe their effect on an electrical circuit.

Materials:

- 3 pieces of wire (strip the ends)
- D size Battery
- Paper fasteners
- Paper Clip
- Dollar Bill
- Eraser
- Aluminum Foil
- Rubber Band
- Pencil
- Penny
- Key

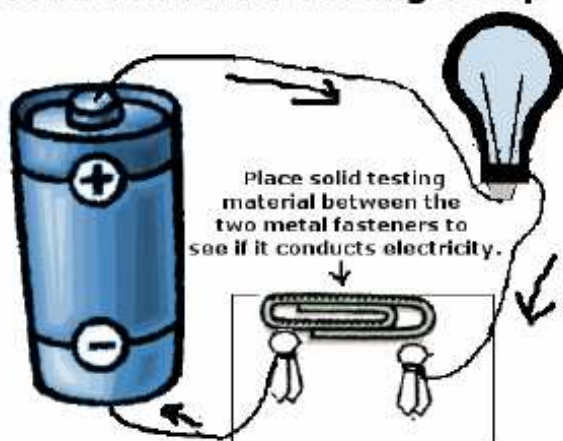
Pre-Lab:

Predict whether the following materials are conductors or insulators.

Material Predictions	
Conductors	Insulators

Procedure:

Solid Conductor Testing Setup



You can make a solid conductor testing set up with a batter, three wires, and a bulb as seen to the left. If a material is placed between the two metal fasteners that does not conduct electricity, the bulb will not light up. In a way, by introducing a solid conductor into the circuit, and then removing it, you are creasing a simple switch (opening and closing the circuit). Test each material and record your results in the data table.

Data Table:

Material Observations	
Conductors	Insulators

Conclusion:

1. How many of your predictions were correct?
2. Why would civil engineers, or others designing a structure, have to be very familiar with insulators and conductors?
3. If we wanted to determine what the BEST insulators and BEST conductors were, what could we have done differently in our lab?