

Preparation

1. Copy a “Performance Task” page for each student.
2. Most materials needed to create the circuit in the performance task can be gathered from students’ plastic bags. The other materials can be found in the kit. The plastic cup can be used to hold other items for easier distribution.

Each student completing the performance task will need:

- 3 copper wires (15cm)
- 2 batteries
- 2 battery holders
- 1 bulb
- 1 bulb holder
- aluminum foil (approximately 3cm X 3cm)
- paper clip
- paper fastener
- piece of wood
- plastic cup
- rubber band

3. Distribute test items to the students. Another way to complete the performance task is to have materials set up at a station(s) in the classroom. Student(s) could visit the station to complete the performance task. Other members of the class would be working on another activity.

Task Administration

Students raise their hands when they have completed the construction of their circuit. The test administrator should then check the circuit to determine if it was assembled correctly. If it was not assembled correctly, ask students questions to help them identify the problem in the circuit. If the circuit was assembled correctly, but the bulb did not light, check for a bad bulb or battery and replace as needed. Students then use the circuit to test if the objects provided conduct electricity.

Scoring

1. Circuit assembly - 30 Points - 10 points if batteries are in series
10 points if battery polarity is correct
10 points if the rest of the circuit is assembled correctly

2. No credit

3. 30 points if all objects are correct
Subtract 5 points for each incorrect response on the chart.

Object	Conductor	Insulator
aluminum foil	X	
plastic cup		X
paper clip	X	
paper fastener	X	
rubber band		X
piece of wood		X

4. Prediction and explanation - 40 points
20 points if their explanation refers to and is consistent with the results of the table.
20 points if their explanation matches their conclusion accurately. For example: My pen is all plastic, like the cup, so I predicted it would not conduct electricity.