Name:

Light It Up Experiment

Purpose: To develop an understanding of series and parallel circuits

Procedure and Data:

Part I

1. Make a light bulb light up
    - Draw a diagram of a successful attempt(include labels)

2. Attach a voltmeter to your light bulb circuit
    - Measure the voltage
    - Draw a diagram (include labels)

Extension - Part II

1. Build a series circuit with two light bulbs
    - Draw a diagram of a successful attempt (include labels)

Extension - Part III

1. Build a parallel circuit with two light bulbs
    - Draw a diagram of a successful attempt (include labels)

Results:

1. Did the series circuit light up the light bulbs?

2. Did the parallel circuit light up the light bulbs?

3. Which circuit (series or parallel) worked better? (Why do you think so?)

Conclusion:

1. What materials do you need to light a light bulb?

2. What provides the electricity to light the bulb?

3. What is voltage?

4. Explain the connection between voltage and Ohm's law.

5. How do you measure voltage?

Extension questions:

6. What is a series circuit?

7. What is a parallel circuit?

8. Why do you think the (series or parallel) circuit worked better?