

Voltage in a Circuit

This worksheet will help you with the Try This! on page 108.

You can use a voltmeter to measure voltage across different parts of a circuit.

Safety Precautions

- Do not “short” the circuit by connecting the ends of the battery to a wire.
- Have your teacher check the connections before you close the circuit.

What You Need

- 3.0 V battery in holder
- 2 – 1.5 V LEDs or bulbs
- switch
- 5 wires with alligator clips
- voltmeter

What to Do

1. Build a circuit with one battery, two light bulbs or LEDs, and a switch. Test your circuit.
2. Predict what the voltage is across Bulb 2: _____ V
3. Draw a diagram in your student resource to show where to connect the voltmeter to measure the voltage across Bulb 2.
4. Connect the voltmeter.
5. Close the circuit and record the voltmeter reading: _____ V

Check Your Understanding

6. Was your prediction correct? YES NO Explain why or why not.

7. **a)** On your circuit diagram, write “M” to show where the electric current has the most energy.
b) Write “L” to show where the electric current has the least energy.
c) Explain what happens to the electric energy in the circuit.

