

**CHAPTER 1**  
**HANDOUT****Working Safely with Electric Circuits****BLM 1-5****Goal** • Read this information and answer the questions that follow.**Working Safely with Electric Circuits**

Electricity can be dangerous. Without special equipment, it is not always possible to tell when there is a current in a wire. Never conduct experiments using electric circuits without the supervision of an adult who is trained to work safely with electricity.

Always follow these guidelines when you work with electric circuits:

- Inspect your equipment before you begin. Watch out for and replace damaged wires, leaky batteries, broken bulbs, or damaged clips.
- Make sure your work area is clean, dry, and uncluttered.
- Remove metal jewellery that could conduct electricity.
- Handle wires by holding the plastic (insulated) coating or clips.
- When connecting a circuit, *connect the wires to the load first*, before connecting them to the battery.
- When disconnecting a circuit, *disconnect the wires from the battery first*, before disconnecting them from the load.
- Check to make sure that the battery is not too powerful for your circuit. If you connect a 6 V battery to a 1.5 V light, you may “blow” the bulb.

1. What precautions must you take before you work on electric circuits?
2. When connecting a circuit, at what stage do you connect the battery?
3. When disconnecting a circuit, at what stage do you disconnect the battery?