

## Kit's Clever Circuit Design

*Learning objective: To identify and draw the components of a simple electrical circuit to understand how they work together to power a device.*

Use the word bank to label your circuit diagram. Make sure to draw clear lines connecting your components. Remember, a circuit must be a complete loop for the electricity to flow!

**Draw:** Draw a clear, large circuit diagram in the center of the page. Use a pencil to draw a rectangle shape for the wires. Place the cell at the bottom, the bulb at the top, and the switch on one of the sides. Use a ruler to make your wires straight and neat. Ensure there are no gaps in the loop when the switch is closed. Add neat label lines pointing to each part of your circuit.



*Label words: Cell · Wire · Switch · Bulb · Positive terminal · Negative terminal*

### Steps:

1. Step 1: Draw a simple circuit layout consisting of one cell, one bulb, one switch, and the wires connecting them. Make sure the switch is in the 'open' position.
2. Label the component that provides the energy to the circuit.
3. What is the purpose of the switch in your drawing?
4. Why must the wires be connected to both the positive and negative ends of the cell for the bulb to light

up?

5. If you added a second bulb to your circuit in a single loop (series), would the bulbs be dimmer or brighter? Explain why.