

Components of an Electric Circuit

Chapter 3: Electricity: Circuits and their Components · Topic 1

Key Concept

For current to flow and a bulb to light up, the circuit must be complete (closed) — if there is any break, such as an open switch or a disconnected wire, the circuit becomes open and no current flows, so the bulb stays off. Conductors, like copper wires, allow current to pass through easily, while insulators, like rubber or plastic, block current flow and are used to safely coat wires and prevent electric shocks.

Quick Revision Notes

- Key circuit components: cell/battery, connecting wires, switch, and a device like a bulb.
- A closed (complete) circuit allows current to flow; an open circuit does not.
- Conductors (like copper) allow current to pass; insulators (like rubber) block it.
- A switch is used to open or close a circuit, controlling current flow.

Practice Questions

- 1 Draw a simple circuit diagram with a cell, switch and bulb.
- 2 Name two materials that are good conductors and two that are good insulators.
- 3 Explain what happens to current flow if a wire in the circuit is cut.