Leamington Primary School
Knowledge Organiser : Year 4 - **Electricity**

Careers connected to electricity: electrician, electrical engineer

Lesson Sequence

1. Understand electrical appliances and safety

2. Learn about electrical compounds in a series circuit

3. Investigate electrical circuits

4. Explore conductors and insulators

5. Learn about electrical switches

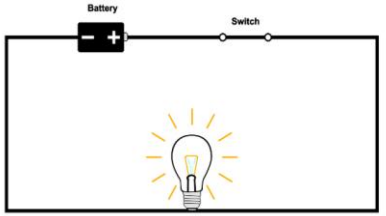
6. Investigate how electrical components can change within a circuit

Key Facts

1. A circuit contains a battery (cell), wires and a component that requires electricity to work (bulb, motor or buzzer).
2. Electrical current flows through the wires from the battery (cell) to the bulb, motor or buzzer.
3. A switch can break or reconnect a circuit.
4. A switch controls the flow of the electrical current around the circuit. When the switch is off, the current cannot flow. This is not the same as an incomplete circuit.

Conductors and Insulators

- Materials that allow electricity to pass through to create a complete circuit are called electrical conductors.
- Materials that do not allow electricity to pass through and do not complete a circuit are called electrical insulators.

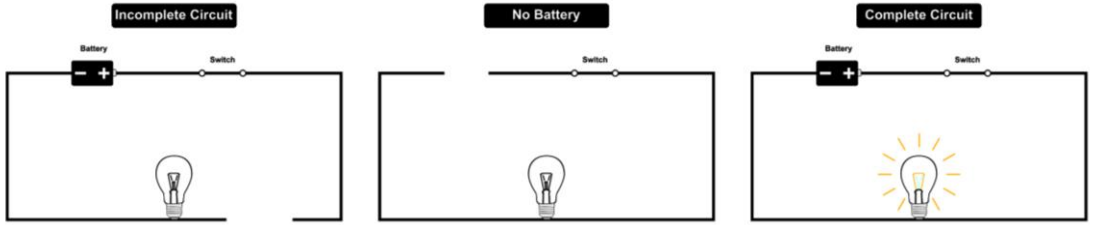


Simple Circuit

A **complete** circuit is a **loop** that allows electrical current to flow through wires.

Simple Electrical Circuit

These are complete circuits - they have a battery (cell) and a component (bulb). The wires are placed in the right places of the battery for the circuit to work.



These circuits will not work as they are incomplete.

Electrical Components