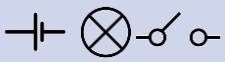
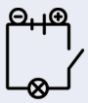
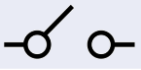
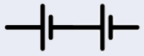
Year 6 Science Knowledge Organiser – Electrical Circuits

Vocabulary

1 components 	the parts of a circuit e.g. bulb, cell, buzzer	**6 buzzer** 	produces sound when electricity flows through it
2 circuit 	the path around which electricity flows	**7 switch (open)** 	creates a gap in the circuit to stop the flow of electricity
3 cell 	provides the power to make electricity flow	**8 switch (closed)** 	closes the gap in the circuit to allow electricity to flow
4 battery 	when two or more cells are used together	**9 motor** 	produces movement through the motor shaft when electricity flows through it
5 lamp 	provides light when electricity flows through it (also referred to as a bulb)	**10 electrical conductor**  	an object or material which will allow electricity to flow through itself easily e.g. silver, gold, copper

Key knowledge

Rules for building a circuit

1. There must be at least one cell.
2. There must be a complete circuit for electricity to flow.
3. The wires must be plugged in (attached) to each component on one side and come out of the component on the other side.
4. The switch must be closed to allow the electricity to flow.

Taking measurements in a circuit

Current tells us how quickly electricity is flowing and is measured using an **ammeter**.

Voltage tells us the amount of energy each component uses and is measured using a **voltmeter**.

Circuit diagram and symbols

Circuit diagrams use circuit symbols which are representations of the components in a circuit.
These diagrams help us visualise and understand how components are connected in a circuit.
They act as a **universal language** allowing engineers and scientists to discuss and work on circuit projects.