








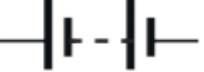

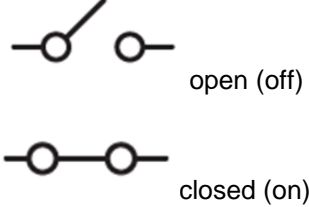




ELECTRICITY

Strand:
Physics

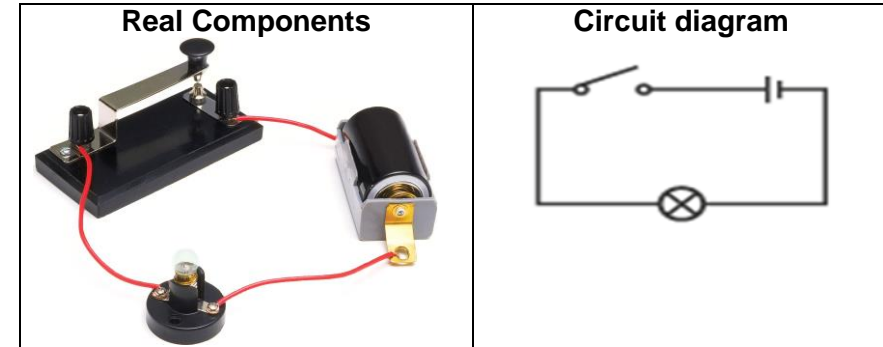


Circuit symbols

Electrical circuits are represented by circuit symbols to make sure they always look the same. This makes it **safer** when people work with electricity.

NAME OF COMPONENT	REAL COMPONENT	SYMBOL
Bulb (light)		
Wire (conducts electricity)		
Cell (single component provides electricity)		
Battery (two or more cells in the same circuit) <i>+ is long - is short</i>		
Switch (stops and starts the flow of electricity)		
Buzzer (sound)		
Motor (movement)		

Circuit diagrams



For a circuit to work, it must have a **source of electricity** and it must be **complete** so the electricity can flow.

Tier 2 vocabulary

Associate – make a link between two things

Causal relationship – explain how one thing impacts on another

Predict – decide on an outcome in advance based in understanding and reasoning so far

Represent – show one thing in another way

Tier 3 vocabulary

Component – part of a circuit

Conductor – allows electricity to pass through (*water, iron, steel, copper*)

Current – amount of electricity flowing through a circuit

Insulator – does not allow electricity to pass through (*wood, fabric, plastic*)

Resistance – something which makes it difficult for the current to pass through

Voltage – voltage provides the current of a circuit

Circuits: Key Knowledge

*If there are more bulbs in a circuit, they will be dimmer because there is more resistance.

*If there are more cells in a circuit, bulbs will be brighter and buzzers will be louder because there is a greater current.

*If the voltage in a circuit is increased, bulbs will be brighter and buzzers will be louder.

*If the voltage in a circuit is decreased, bulbs will be dimmer and buzzers will be quieter.