

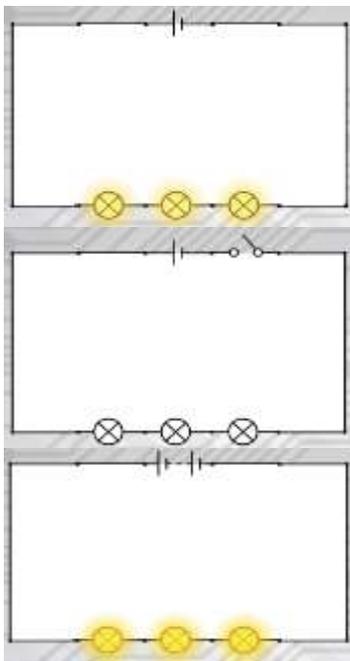


Electricity Year 6

What I should already know

- Electricity is a type of energy.
- It is used to power lots of different things, including many items that we use in everyday life.
- Electricity can flow through wires and cables, and can be stored in batteries (also known as cells).
- Some materials conduct electricity (conductors) and others do not (insulators).

Variation in components

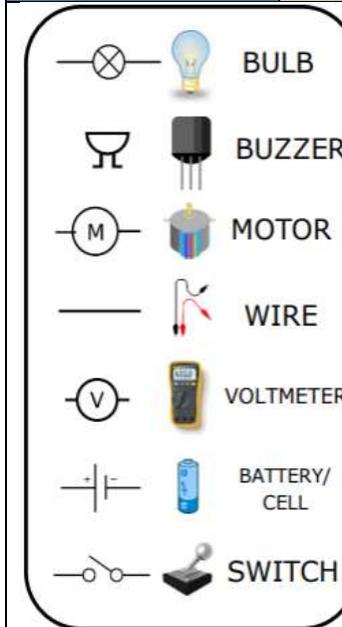


When changes are made to circuits, the components within them function differently.

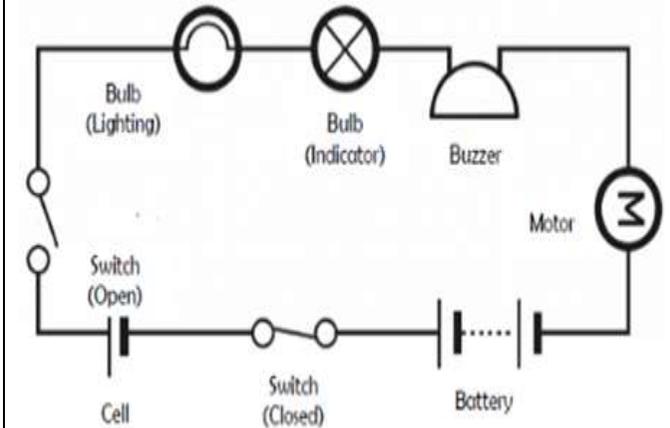
- When switches are open, or wires are removed from a circuit (so it is no longer a closed circuit), bulbs, buzzers and motors will turn off.
- When more batteries or cells are added (or batteries with a higher voltage), the brightness of the bulbs, the speed of the motors and the volume of the buzzers will increase.
- When more bulbs are added to a simple circuit, they will be dimmer than if there is one bulb. This is because the electricity is shared between the two bulbs. The same occurs for buzzers and motors. More voltage would be needed to make them brighter.
- You will need to look at circuit diagrams such as those on the left, and work out how they would behave differently.

Key Vocabulary

Circuit	A complete route which an electric current can flow around
Circuit diagram	A simple picture representing an electrical circuit using symbols
Circuit symbol	A simple picture/symbol representing an electrical device, appliance or function
Cell/battery	Small devices that provide the power for electrical items such as torches
Bulb	The glass part of an electric lamp that gives out light when electricity passes through it
Buzzer	A electrical device used to make a buzzing sound
Motor	A device that uses electricity or fuel to produce movement
Switch	A small control for an electrical device which breaks the flow of electricity causing any devices to turn off
Voltage	The force of an electric current that causes electricity to flow and is measured in volts.



We can use a diagram to represent an electrical circuit. These are standard symbols that are used to show the different components.



DANGER



ELECTRICITY

Electricity can be very dangerous when not used safely. When using electricity, make sure you:

- Do not stick fingers into objects or plug sockets
- Place wires in safe places where people cannot trip on them
- Keep water away from electrical appliances and wires
- Get broken appliances and plugs fixed



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