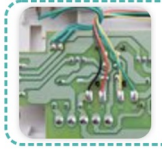
Knowledge Organiser: Year 6 Electricity

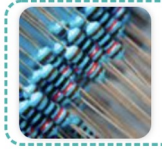
Careers connected to electricity: mechanical engineering technician, electricity distribution worker, electrical engineer, energy engineer.

Lesson Sequence

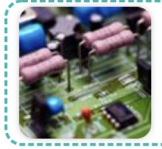
1. Describe the parts of an electric circuit



2. Explore voltage and its effect on an electrical circuit

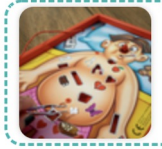


3. Apply knowledge to identify and correct problems in a circuit



4. Investigate what affects the output of a circuit

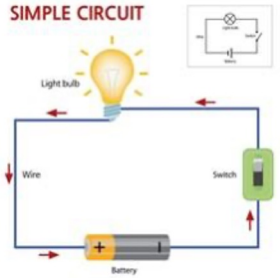
5. Build a set of traffic lights



6. Apply knowledge of conductors and insulators

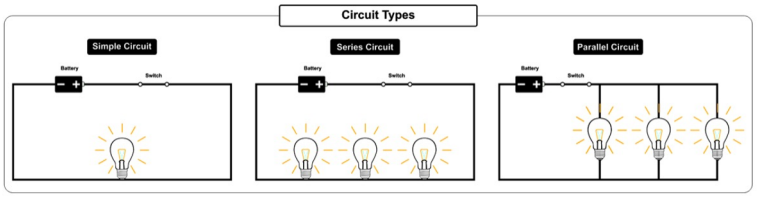
Circuit Symbols

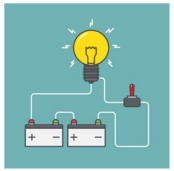
Wires are always drawn with a **straight line** using a **ruler** in scientific diagrams.



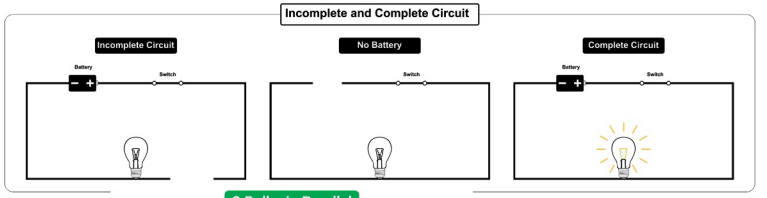
The **current** flows from negative to positive. There are no gaps so it is a **complete** circuit and the bulb lights up.

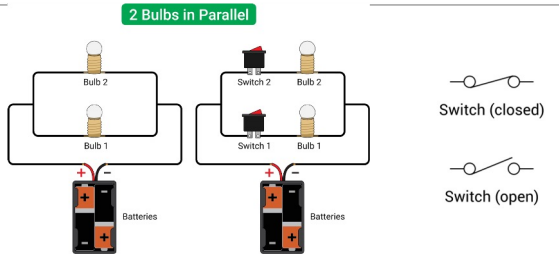
Different Circuits





Adding more cells (batteries) to a circuit will make bulbs **brighter**, buzzers **louder** and motors **faster**.





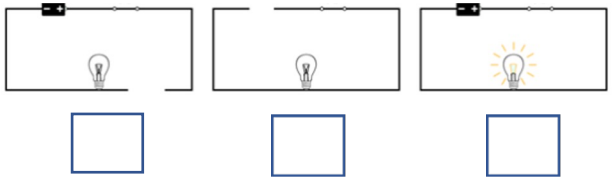
Switches can be placed in a **parallel circuit**, so that 1 light can be turned on while another is off (just like in a house).

Knowledge Organiser: Year 6 Electricity

Before and After Test

Use the picture below to draw a scientific diagram of the circuit:

Tick the circuits that work and cross the ones that don't.



Explain 2 ways to make the bulbs in a circuit brighter:

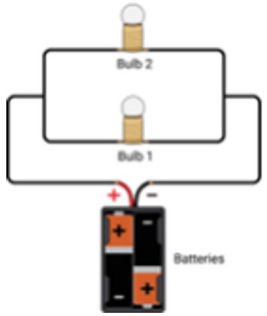
1. _____

_____

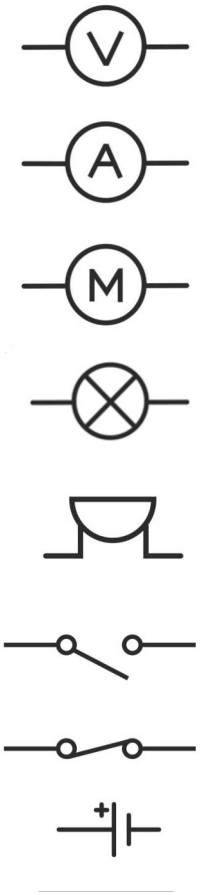
2. _____

_____

Add 2 switches onto the diagram so that they turn on and off separately.



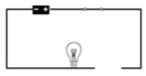
Draw a line to match up the symbol with its correct name:



- closed switch
- buzzer
- lamp/bulb
- voltmeter
- open switch
- motor
- battery/cell
- ammeter

Unit Rocket Words: Electricity

Rocket Words

	component	The different pieces of equipment used to build a circuit.
	amps	A unit of measurement for electricity.
	voltage	A unit of measurement for electricity.
	voltmeter	A piece of equipment that measures the amount of electricity being used.
	ammeter	A piece of equipment that measures the amount of electricity being used.
	current	The flow of electricity around a circuit.
	output	The amount of energy produced in a circuit.
	complete circuit	A circuit where there are no gaps so an electrical current can flow.
	incomplete circuit	A circuit that has a switch open or gap caused by wires not connected, meaning the electrical current cannot flow.