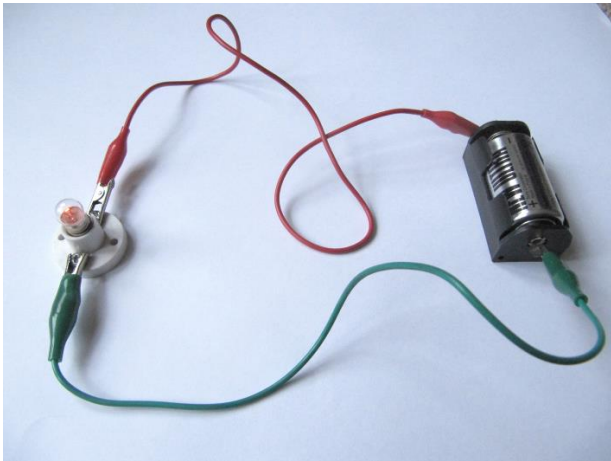


Year 4 Science Knowledge Organiser – Electricity

Electricity



Electricity	A type of energy that consists of moving electrons. When electrons flow through a circuit an electric current is created.
Electrons	A tiny particle found inside atoms that has a negative electrical charge.
Current	The flow of electrons around a circuit. Current is measured in amperes or amps (A).
Voltage	The “push” of a battery or power supply to create a flow of electricity. Voltage is measured in volts (V).

Conductors and Insulators

Conductors	Some materials let electricity pass through them easily. They are known as electrical conductors.
	Many metals, such as iron, copper and steel, are good electrical conductors.
Insulators	Some materials do not allow electricity to pass through them. They are known as electrical insulators.
	Wood, glass, plastic and rubber are good electrical insulators. That is why they are used to cover materials that carry electricity.



Circuits

Battery	A battery contains numerous cells connected so that they produce more electrical energy.	
Bulb	A bulb will light up only when it is in a circuit that is complete.	
Switch	A switch can be turned on (closed) to let current flow or turned off (open) to stop current flow.	
Motor	A motor turns current into motion, for example, in a hair dryer.	
Buzzer	A buzzer turns current into sound.	

Circuit	The path around which an electric current circulates.
Battery	A device which stores energy that can be converted into electrical power.
Bulb	A device which converts electrical energy into light.
Switch	A device which can stop the flow of electrical current.
Motor	A device which turns electrical energy into movement.
Buzzer	A device which converts electrical energy into sound.