

It is very important to be safe with electricity.
Electricians are trained to be safe with electrical
circuits and equipment.



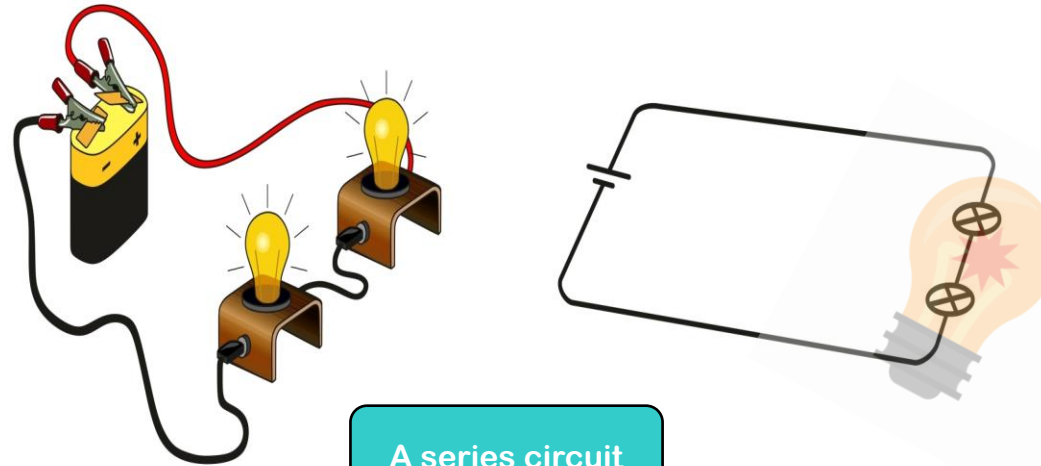
WHS Y4 Electricity Knowledge Organiser

Most metals are good conductors of electricity
and materials like rubber are good insulators.

KEY WORDS

Learn these words
and their definitions.

Key Word	Definition
series circuit	A looped circuit where the electricity flows from the positive to negative point of the battery.
circuit diagram	Electrical components shown in a picture by using symbols.
parallel circuit	A circuit with two or more pathways for the current to flow through.
conductor	Materials which allow electricity to flow through them easily.
insulator	Materials that do not allow electricity to pass through them easily.
loop	A complete circuit.
switch	A toggle which is changed by someone as way of controlling an electrical circuit or system.
resistance	A measure of how much an object opposes the flow of electrons.



A series circuit

Prior learning

- Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes. (Early Learning Goal)

Future learning

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. (Y6 - Electricity)
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. (Y6 - Electricity)
- Use recognised symbols when representing a simple circuit in a diagram. (Y6 - Electricity)



UNIT Objectives

We can identify common appliances that run on electricity.

We can recognize some common conductors and insulators, and associate metals with being good conductors.

We can recognize that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a series circuit.

We can identify whether a lamp will light in a series circuit, based on whether the lamp is part of a complete loop with a battery.

We can construct a series circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.