



Knowledge Organiser

Science—Electricity

Year 6

Circuits

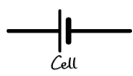
- Circuits are the path that electricity takes when a current flows through wires and components.
- We use a number of components in circuits depending on what we want the circuit to do. In a torch, we would need a bulb to make light. In a toy car, we would need a motor for movement.
- When we draw circuits, we use symbols to show different components. These are shown below.



Diode



Battery



Cell



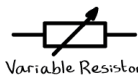
Light Emitting Diode



Thermistor



Voltmeter



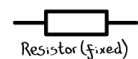
Variable Resistor



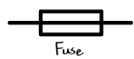
Motor



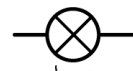
Light Dependent Resistor



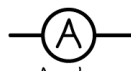
Resistor (fixed)



Fuse



Lamp



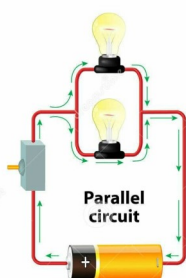
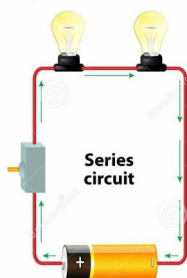
Ammeter

**CIRCUIT
SYMBOLS**

- Some materials are good at letting electricity go through them. These are called conductors. Some materials don't let electricity through. These are insulators.

Types of Circuit

- There are two different types of circuit; series and parallel.
- In a series circuit, there is only one path for the current to flow through. All of the components are placed one after another, in a 'series'.
- In a parallel circuit, there are multiple paths that the electrical current can flow through. The components are arranged in multiple series circuits which split the flow of electricity.



Key Vocabulary

Battery	A container containing cells, where electricity is stored as chemical
Bulb	Something that provides light using electricity.
Buzzer	A device that makes a buzzing noise.
Circuit	A continuous path of wires and devices through which
Filament	A wire in a bulb which glows when electricity goes through it.
Motor	A machine that moves when electricity goes through it.
Switch	A device that makes or breaks a circuit.

What I can do at home

Learn	Look around your house. What electrical items can you see? What components would be in them?
Investigate	Electricity not used correctly could be very dangerous. Find out about how we keep electricity safe.
Explore	How is electricity made and how does it get to our houses and school for us to use?

Communicate

Talk to an adult at home about the things below. You don't need to record this.

Some of our electricity is made by burning fuels, such as oil and coal which is very harmful to our environment. Other ways are much greener.

Why don't we make **all** of our electricity in a way that is good for