Science Knowledge Organiser

Term 1 – Year 5/6 Electricity

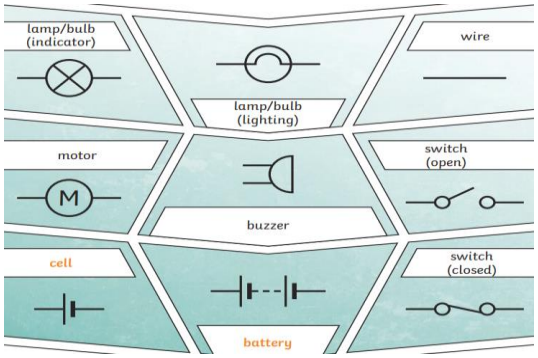
**Key Enquiry Question:** What are the variations on how electrical components function in a circuit?

**National Curriculum Objectives:**

associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit

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

use recognised symbols when representing a simple circuit in a diagram.




| Key vocabulary | |
|---|---|
| **Word** | **Meaning** |
| circuit | A path that an electrical current can flow around |
| cell/battery | A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells. |
| current | The flow of electrons, measured in amps |
| amps | How electric current is measured. |
| voltage | The force that makes the electric current move through the wires. The greater the voltage, the |
| resistance | The difficulty that the electric current has when flowing around a circuit. |
| electrons | Very small particles that travel around an electrical circuit |

**Sticky Knowledge**

More batteries or a higher voltage create more power to flow through the circuit.

Shortening the wires means the electrons have less resistance to flow through.

Fewer batteries or a lower voltage give less power to the circuit.

More buzzers or bulbs mean the power is shared by more components.

Lengthening the wires means the electrons have to travel through more resistance.

A series circuit is a circuit that has only one route for the current to take.