# Knowledge Organiser

**Years 6**

**Subject: Science  Learning: Electricity**

| Key knowledge | |
|---|---|
| **Understand how electricity works and how its power can vary** | **Date of Learning** |
| Know that the brightness of a bulb is associated with the voltage | |
| Compare and give reasons for variations in how components function | |
| Use recognised symbols when representing a simple circuit in a diagram | |
| Construct simple series circuits | |
| Be able to answer questions about what happens when they try different components, for example; switches, bulbs, buzzers and motors | |

## Vocabulary

| | |
|---|---|
| **series circuits** | Is a circuit that has more than one resistor, but only one path through which the electricity (electrons) flows |
| **cells** | Is a device that is used to generate electricity, or one that is used to make chemical reactions possible by applying electricity |
| **generator** | A machine that converts energy into electricity |
| **turbine** | A machine that creates continuous power in which a wheel, or something similar, moves round and round by fast moving water, steam, gas or air |
| **fuses** | These are safety devices. They are strips of wire that melt and break an electric circuit if it goes over a safe level |
| **socket** | A safe device to plug your electrical items into at home. Almost every room at home will have at least one socket |

| Component | Symbol | Purpose |
|---|---|---|
| Cell (Battery) |  | Provides electrical energy |
| Power supply |  | Alternative to using cells |
| Wire |  | Allows current to travel |
| Bulb/light |  | Converts electrical energy into heat and light |
| Motor |  | Converts electrical energy into movement energy |
| Buzzer |  | Converts electrical energy into sound energy |
| Switch |  | Allows circuit to be opened or closed |

**Prior Knowledge –**
**How electricity works, its importance in the home and knowledge of constructing a simple circuit.**
**Renewable energy and its use over use of fossil fuels.**
**Identify the difference and give examples of conductors and insulators.**