



### Key knowledge

Understand how electricity works and how its power can vary

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 melts and breaks 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



SCIENCE



Prior Knowledge –