



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 –