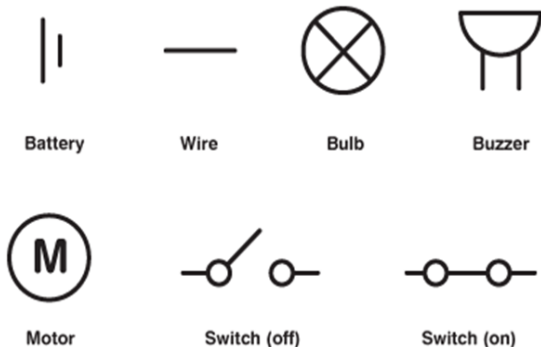


Key Vocabulary

Circuit	A complete and closed path around which a circulating electric current can flow.
Conductor	A material or device which allows heat or electricity to carry through .
Current	A flow of electricity which results from the ordered directional movement of electrically charged particles .
Battery	A container consisting of one or more cells where chemical energy is converted into electricity and used as a
Bulb	A glass bulb which provides light by passing an electrical current through a filament .
Buzzer	An electrical device that makes a buzzing noise and is used for signalling .
Switch	A device for making and breaking the connection in an electric circuit.
Voltage	An electrical force that makes electricity move through a wire, measured in volts.
Motor	A machine powered by electricity that supplies motive power for a vehicle or other moveable device.



Key Learning



Year: 6

Term: Autumn 2

Questions: How can we make a bulb brighter?

Curriculum Area: Science

Background information including prior knowledge):

Revise prior knowledge from Year 4

- 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 Content:

- incorporate a switch into a circuit to turn it on and off.
- change cells and components in a circuit to achieve a specific effect.
- communicate structures of circuits using circuit diagrams with recognised symbols.
- devise ways to measure brightness of bulbs, speed of motors, volume of a buzzer during a fair test.
- predict results and answer questions by drawing on evidence gathered.

Key Questions/ Big 6 facts

1. Adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound.
2. If you use a battery with a higher voltage, the same thing happens.
3. Adding more bulbs to a circuit will make each bulb less bright.
4. Using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter.
5. Turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow.
6. Any bulbs, motors or buzzers will then turn off as well.