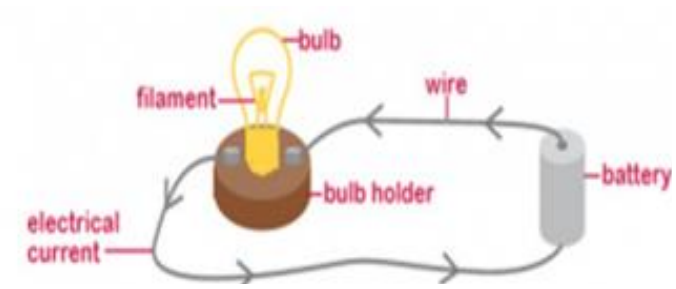
YEAR 6 – Science Electricity

What I should already know:

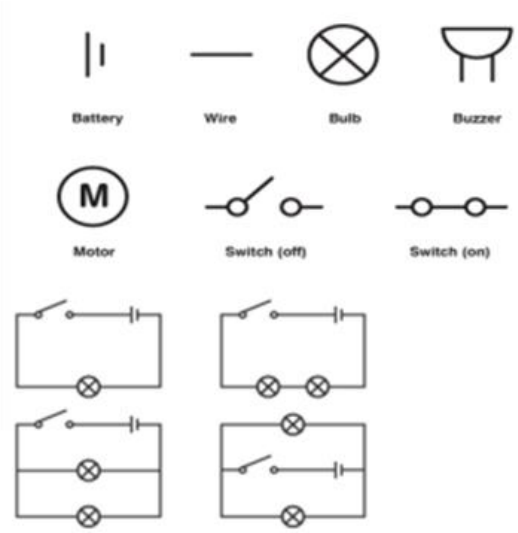
- Identify common appliances that run on electricity.
- Construct simple series electrical circuits, identifying and naming its basic parts, including cells, wires, switches and buzzers.
- Identify whether of not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple circuit.
- Recognise some common conductors and insulators and associate metals with being good conductors.

By the end of this unit, I will know how to:

- That the brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in a circuit
- How component functions vary, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
- Reasons for these variations.
- The universal symbols used when representing a simple circuit in a diagram



Investigation: How does the brightness of a bulb or speed of a motor change?



Key Facts

- There are universal symbols used for representing the components of an electric circuit.
- The brightness of a lamp or volume of a buzzer depends on the number and voltage of the cells used in the circuit.
- There are reasons why various components function differently, including the brightness of bulbs, the loudness of buzzers and the on/off position of switch

Nikola Tesla was a brilliant scientist and inventor. His work with electricity led to many advances in communication and technology.

Key Vocabulary	
Ampere	A unit of electric current
Battery	A container consisting of one or more cells where chemical energy is converted into electricity and used as a source of power
Buzzer	An electrical device that makes a buzzing noise and is used for signaling
Cell	A device containing electrodes that is used for generating current
Circuit	A complete and closed path around which a circulating electric current can flow
Component	A part of the whole electrical circuit
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
Electricity	A form of energy resulting from the existence of charged particles
Filament	A conducting wire or thread with a high melting point that forms part of an electric bulb
Insulator	A material that does not allow electricity to flow through it
Motor	A machine powered by electricity that supplies motive power for a vehicle or other moveable device
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