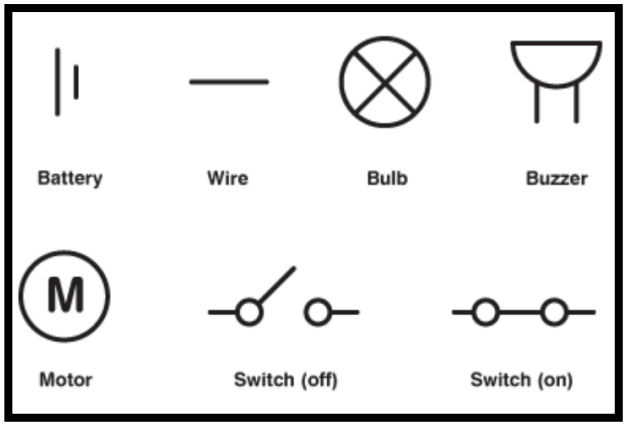
Lever House Primary School			
Electricity	Main Subject: Science	Strand: Physics	Classes: Rowan, Silver Birch & Sycamore

What I should already know

- That there are two types of electric current: mains electricity and battery powered electricity.
- That electricity can be generated by: fossil fuels, nuclear and renewable energy.
- That a conductor of electricity will let electrons flow through it and metals are conductors.
- That an insulator of electricity will NOT let electrons flow through it examples are wood, plastic and glass.

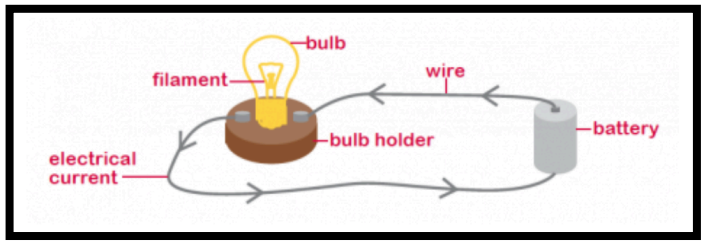


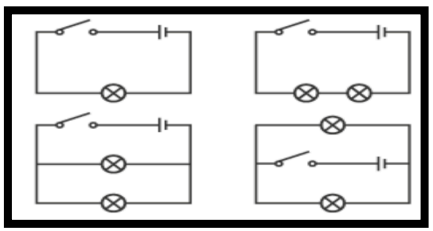
What I will learn:

- Who are the key figures who helped with the major discoveries in electricity?
- Can you construct a simple circuit?
- What are the scientific circuit symbols and how can I draw a circuit using them?
- Can you investigate the effects of differing volts in a circuit?
- Can you plan a detailed investigation including variables and controls?
- Can you carry out a fair investigation, analyse the results and use these to write a conclusion?
- Can you generate a relevant question to test and set it up fairly?
- Can you write a scientific report?

Sticky Knowledge

- There are different types of circuits: series and parallel.
- A series circuit is a circuit that has only one route for the current to take If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops.
- More batteries or a higher voltage create more power to flow through the circuit.
- A variable is used in a fair test. A variable is any one of the elements of the test which could be changed. They can change the outcome of an experiment. In a fair test, only one variable is allowed - all others have to be kept the same.
- Thomas Alva Edison was a famous American inventor. He is best known for inventing 'domestic' lightbulbs to go in houses, and the electric power system that allows them to work.
- Michael Faraday was a British scientist who studied electromagnetism. His work on electromagnetism led to the first generators and electric motors.





Key Vocabulary

Amps - How electric current is measured.

Cell/battery - A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells.

Circuit - A path that an electrical current can flow around.

Current - The flow of electrons, measured in amps.

Electrons - Very small particles that travel around an electrical circuit.

Resistance - The difficulty that the electric current has when flowing around a circuit.

Symbol - A visual picture that stands for something else.

Voltage - The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.