

Electricity - Science Knowledge Organiser

Electricity: a flow of energy and flow of electric charge (electrons).

Electric current: a flow of electric charge moving in one direction through a material.

Atom: every solid, liquid and gas are made up of atoms. An atom contains a nucleus with protons, electrons and neutrons.

Electron: a particle with negative electrical charge.

Appliance: a device, piece of equipment or an instrument designed to perform a task.

Alternating Current (AC): an electric current that reverses its direction many times which is usually used in power supplies.

Direct Current (DC): an electric current flowing in one direction only which is usually found in batteries.

Circuit: a complete electrical network of components allowing an electric current to flow through.

Component: a part or element of a large whole e.g. a circuit.

Cell: a single battery.

Battery: two or more batteries.

Switch: a component that breaks or completes a circuit on purpose to stop or allow the flow of electrons when it is turned on or off.

Conductor: a material that allows the flow of an electric current through it.

Insulator: a material that stops the flow of an electric current through it.

5 Types of Scientific Enquiry



There are 5 types of enquiry to answer science questions

1

Observing over time:

Observe or measure how something changes overtime



2

Grouping and classifying:

Identifying features that allow things to be organised into groups



3

Noticing patterns:

Observe and record phenomena, carry out surveys or collect data from secondary resources and then identify patterns.

4

Research:

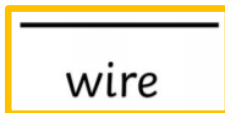
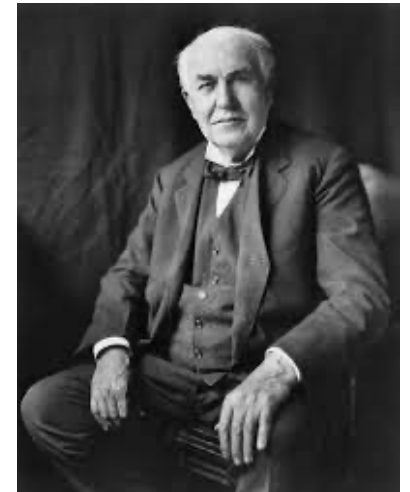
Research and gather scientific findings to answer questions or help explain events



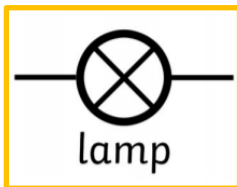
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Comparative and fair testing:

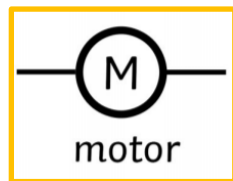
Observe and measure the effect that changing one variable has on another whilst attempting to keep the other variables constant



wire



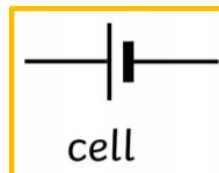
lamp



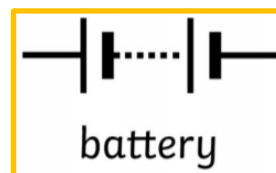
motor



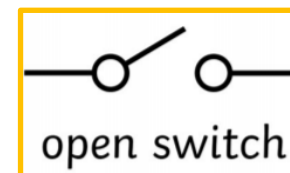
buzzer



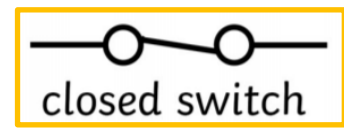
cell



battery



open switch



closed switch