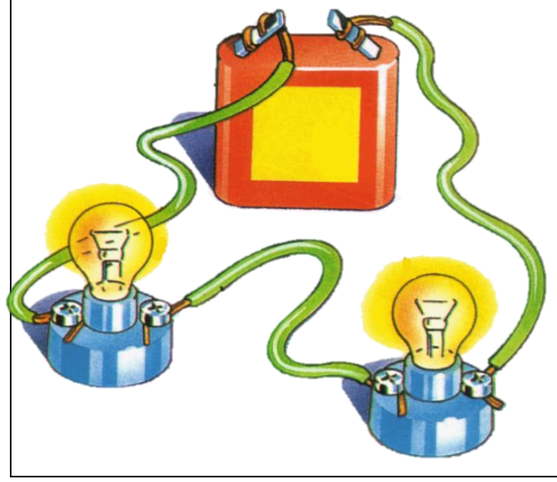
Year 6 – Electricity – Spring Term

What you should already know…



-Electricity is a type of energy.

-Electricity can flow through wires and cables and can be stored in batteries (sometimes called cells).

-Electricity can flow in simple series electrical circuits.

-Some materials <u>conduct</u> electricity (metals

- Some materials do not conduct electricity. These are called <u>insulators</u>.

Electricity Safety

If electricity is not used safely, it can be highly dangerous.

-Make sure that wires are placed in safe locations, where people cannot trip over them.

-Never stick your fingers or objects into a plug socket.

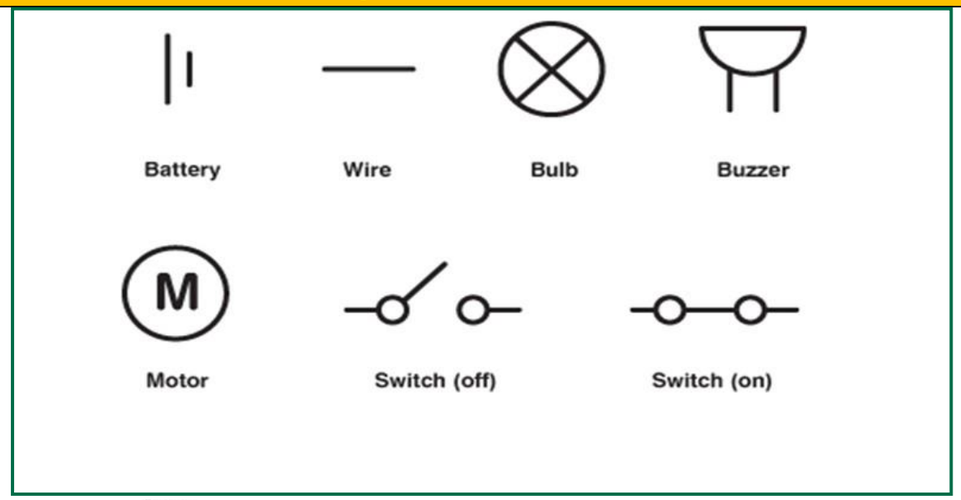
-Never use frayed wires – don't pull wires.

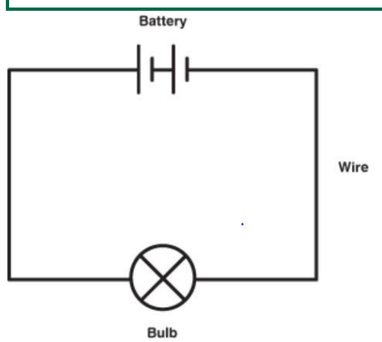
-Ensure that your hands are dry when you are near sockets/ electrical equipment.

-Do not overload a plug socket.

-Always get broken appliances and plugs fixed.

Main components of an electrical circuit





In order for electricity to flow, a circuit needs three things:

- A source of electricity
- No gaps in the circuit
- Conductors

Variation of Components

By changing the components in a circuit, we can vary:

The brightness of a bulb

(brighter/dimmer)

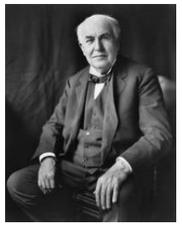
The volume of a buzzer

(louder / quieter)

Different appliances run on different amounts of electrical charge. An ammeter can be used to measure amps (the size of the charge).

Electricity – Vocabulary

ammeter	measures the current in a circuit
appliances	a device or machine in your home that you use to do a job such as cleaning or cooking - appliances are often electrical
battery	small devices that provide the power for electrical items such as torches
bulb	the glass part of an electric lamp, which gives out light when electricity passes through it
buzzer	an electrical device that is used to make a buzzing sound
cell	a synonym for battery
circuit	a complete route which an electric current can flow around
component	the parts that something is made of
conductor	a substance that heat or electricity can pass through or along
current	a flow of electricity through a wire or circuit
device	an object that has been invented for a particular purpose
electricity	a form of energy that can be carried by wires and in used for heating and lighting, and to provide power for devices
energy	the power from sources such as electricity that makes machines work or provides heat
fuel	a substance such as coal, oil, or petrol that is burned to provide heat or power
generate	cause it to begin and develop
insulator	a non-conductor of electricity or heat
mains	where the supply of water, electricity, or gas enters a building
motor	a device that uses electricity or fuel to produce movement
power	power is energy, especially electricity, that is obtained in large quantities from a fuel source and used to operate lights, heating, and machinery
resistance	a force which slows down a moving object, vehicle or current
resistor	a part of an electric circuit that provides resistance to some of the current
source	where something comes from
switch	a small control for an electrical device which you use to turn the device on or off
voltage	the force of an electric current as measured in volts
wires	a long thin piece of metal that is used to fasten things or to carry electric current



Super Scientist – Thomas Edison	Super Scientist – Nikola Tesla
Thomas Alva Edison (February 11, 1847 - October 18, 1931) was an American inventor and entrepreneur, who invented many things. Thomas Edison developed one of the first practical light bulbs, but contrary to popular belief did not invent the light bulb. Edison's 1093 patents were the most granted to any inventor in his time.	Nikola Tesla (10 July 1856 – 7 January 1943) was a Serbian-American inventor, electrical engineer, mechanical engineer and physicist. He is best known for his contributions to the design of the modern alternating current (AC) electricity supply system.