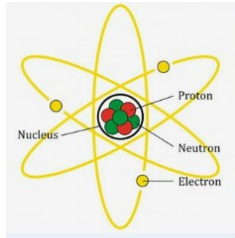


# Electricity



Term 3  
Year 6



## What is electricity?

Electricity is a type of energy that builds up in one place or flow from one place to another.

Inside atoms are electrons, protons and neutrons. When a force is applied, the electrons come loose and move to another atom. When lots of atoms are together and the electrons are moving from one atom to another in the same direction, this is called electricity.

**Electricity is the 'flow' of electrons from one atom to another.**


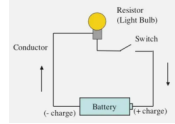

### I already know -

#### Year 4

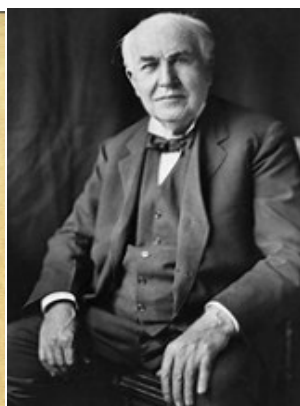
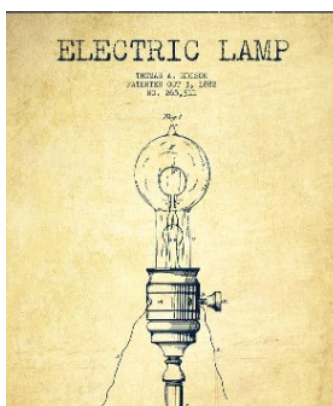
- ◇ Identify common appliances that run on electricity.
- ◇ Construct a simple series circuit, identifying and naming basic parts (cells, wires, bulbs, switches and buzzers).
- ◇ Identify whether or not a lamp will light in a simple series circuit.
- ◇ Recognise a switch opens or closes a circuit.
- ◇ Recognise some common insulators and conductors.

### I will learn that -

- ◇ 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

Voltage (volts)	Current (amps)	Power (watts)
The voltage is an electrical force that makes electricity move through a wire and we measure it in volts (V).	Voltage does not, itself, go anywhere. What moves through the wire in a circuit is a steady flow of electrons, the electrical current, measured in amperes (amps).	Together, voltage and current give you electrical power. The bigger the voltage and the bigger the current, the more electrical power you have. It is measured in watts.
		
Conductor	Insulator	Circuit
Material which lets electricity pass through easily	Materials that do not allow electricity to pass through.	The path or line which an electrical current flows. An open circuit does not allow electrical current to flow.

**Which American scientist invented a light bulb that allowed people to use electric light in their homes in 1880?**



5 Electrical Conductors				
				
silver	gold	copper	steel	sea water
5 Electrical Insulators				
				
rubber	glass	oil	diamond	dry wood