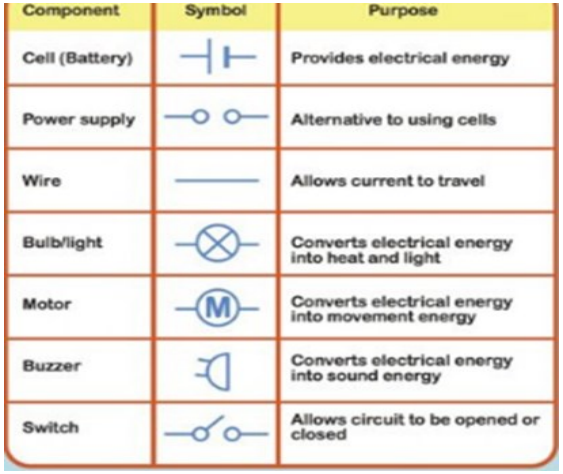
Year 6: Electricity - Changing Circuits

Subject Specific Vocabulary

conductor	A conductor is an object or type of material that allows the flow of an electrical current in one or more direction.
insulator	An insulator is a material that does not allow electricity to pass through it.
socket	Sockets allow electrical equipment to be connected to the alternating current (AC) power supply in buildings..
series circuit	Components connected in series are connected along a single path, so the same current flows through all of the components.
cell	An electrical cell is a device that is used to generate electricity in a circuit.
volts	Voltage is an electrical potential difference, the difference in electric potential between two places.
fuse	These are safety devices. A fuse is a strip of wire that melts and breaks an electric circuit if it goes over a safe level.
generator	A machine that converts energy into electricity.
turbine	A machine that creates continuous power a wheel, or something similar, that moves round and round by fast moving water, steam, gas or air.
Thomas Edison	He was a great inventor that came up with a way of making the electric light bulb accessible for homes, industry and outside in the streets.

Learning Link Back

- Identifying common appliances that run on electricity.
- Comparing a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
- Identifying whether or 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..
- Recognising that a switch opens and closes a circuit and associating this with whether or not a lamp lights in a simple series circuit.
- Recognising some common conductors and insulators, and associate metals with being good conductors.



Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Alternative to using cells
Wire		Allows current to travel
Bulb/light		Converts electrical energy into heat and light
Motor	M	Converts electrical energy into movement energy
Buzzer		Converts electrical energy into sound energy
Switch		Allows circuit to be opened or closed

Sticky Knowledge

- Electricity is the presence or flow of charged particles.
- The brightness of a bulb is associated with the voltage of the batteries in the circuit.
- There are recognised symbols that are used when drawing a diagram of a circuit.
- An electric current is the flow of electrons around a circuit.
- A circuit always needs a power source, such as a battery, with wires connected to both the positive (+) and negative (-) ends. A battery is made from a collection of cells connected together.
- Variation in the components in a circuit will result in differences in the brightness of bulbs or the loudness of buzzers in that circuit.