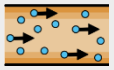
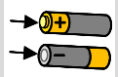
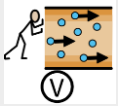
Year 6 Electricity:

Key Vocabulary		
Battery Cell		A container containing one or more cells where chemical energy is converted into electricity.
Conductor		A material that allows electricity to flow through it.
Circuit		A route through which electricity flows in a complete circle. This is series circuit – electricity flows through each component.
Current		Flow of energy resulting from the movement of the charged particles.
Electrons		Particles that have been charged.
Fossil fuels		A natural fuel: coal or gas. Made from the remains of dead plants and animals.
Generator		A machine that converts energy into electricity.
Insulator		Materials that electricity cannot pass through.
Terminal		Where the battery connects to the circuit. In a circuit, electric current flows from negative terminal to the positive terminal.
Voltage		An electrical force that causes the free electrons to flow through a wire, measured in volts. Voltage is usually supplied by a battery or generator.

Key Knowledge:

A circuit must be complete for the electrons to travel around it from one terminal of the battery to another.

Electrons travel from the negative terminal of a battery to the positive terminal of a battery.

Components will function differently when changes are made to a circuit:

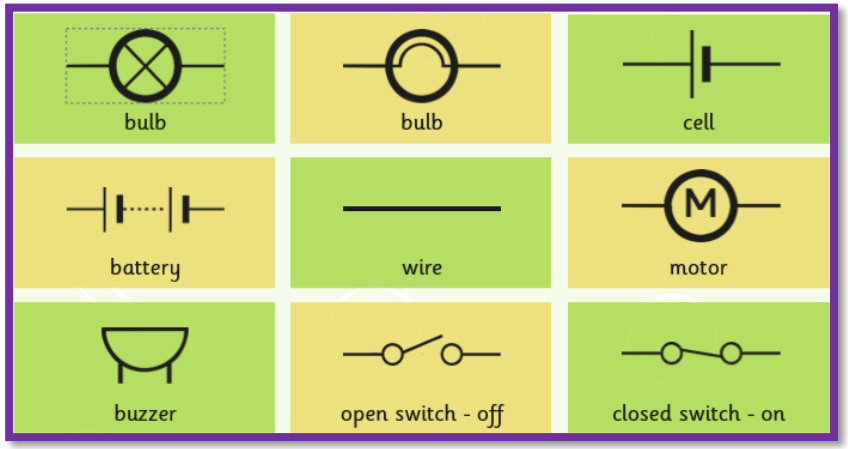
When more cells (batteries) are added, the brightness of bulbs/ loudness of buzzers will increase.

When higher voltage batteries are used, the brightness of bulbs/ loudness of buzzers will increase.

When more bulbs are added to a series circuit, they will be dimmer as the electricity is shared.

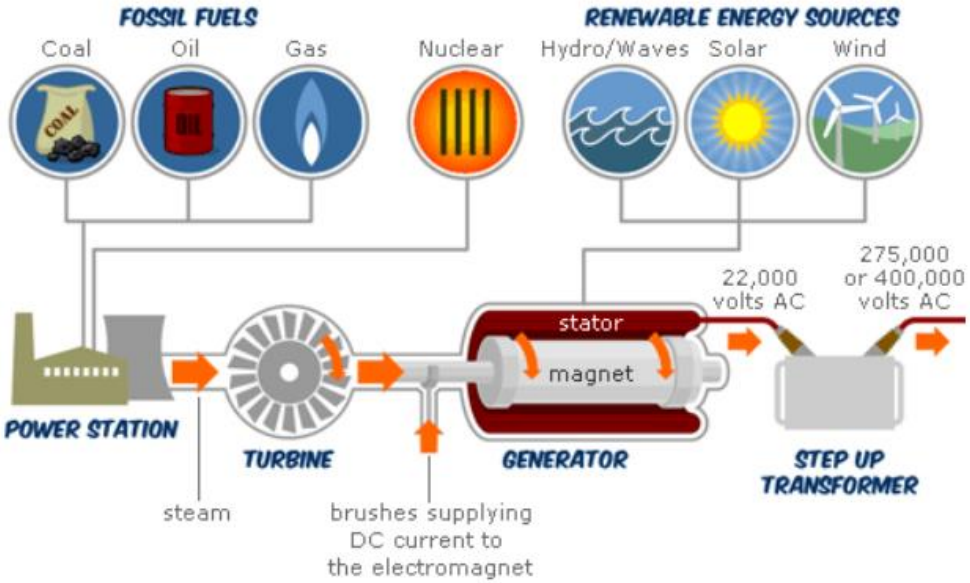
Not all sources of energy are renewable (always available). Some are non-renewable and will eventually run out.

Circuit diagrams: when drawing electrical circuits, standard symbols are used to show the different components.
Wires are shown using straight lines.



Lantern Lane Primary School
Confidence. Achievement. Respect. Enthusiasm.

Electricity is a secondary source of energy – we get it from other sources of energy. This can be renewable (never used up) or non-renewable.
Which forms of energy are renewable & which are non-renewable?



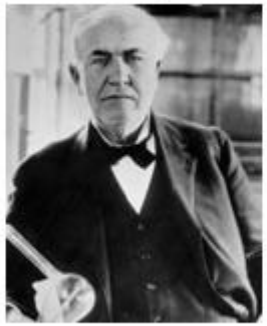
Working Scientifically

	Which sources of electricity are renewable and which aren't? Which circuits conduct electricity and which don't?
	What happens to the brightness of bulbs/ loudness of buzzers when we change…? - number of cells; - voltage of cells; - number of components in a circuit.
	What are the advantages & disadvantages of different ways electricity is produced? Which famous scientist made most impact on our lives (in the field of electricity)?

The Radcliffe-on-Soar power station, which currently burns coal to fuel our homes, will stop work in 2024. Instead, the site will be used to burn rubbish to generate power:

The wind farm at Cromer, North Norfolk.

Which pioneer in the field of electricity had most impact on our lives today?

Sir Michael Faraday	Thomas Edison	Nikola Tesla
		

Lantern Lane Primary School
Confidence. Achievement. Respect. Enthusiasm.