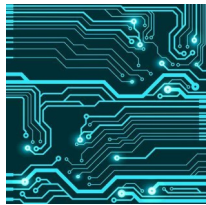
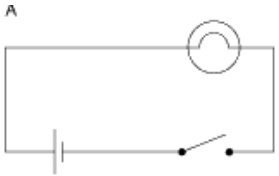


**Danger! High Voltage!**

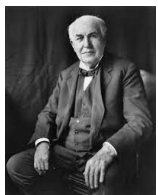
**Background Information**

During this topic, the children will learn about electricity. In science, they will first identify the different electrical components and then learn how to fix faults that occur in circuits. In history, they will learn what life was like before electricity and will then use a timeline to place the advances in technology. During ICT time, the children will research one specific piece of technology and show how it has changed over time. The children will design and create a toy/product using electricity.



**Killer Facts!**

- Batteries (cells) are a store of energy which pushes electricity round a circuit. When the battery's energy is gone, it stops pushing energy.
- We measure the 'push' of electricity as a voltage.
- The more electrical current that flows into a device, the harder it works.
- The higher the voltage, the brighter a lamp will be/the louder a buzzer will be.
- The current is how much electricity is flowing around a circuit.
- When current flows through wires, heat is released. The greater the current, the greater the heat.
- Each component in an electrical circuit can be represented by a set of recognised symbols.



**Key Vocabulary**

Word	Meaning
electricity	A form of energy resulting from the existence of charged particles
circuit	An <i>electrical circuit</i> is a path in which electrons from a voltage or current source flow
Cells	A device, such as a battery, that is capable of changing some form of energy into <i>electricity</i> .
Wire	A <i>wire</i> is a flexible metallic conductor used to carry <i>electric</i> current in a circuit.
bulb	A <i>bulb</i> is the glass part of an electric lamp, which gives out light when electricity passes through it.
switch	A device for making and breaking the connection in an electric circuit.
buzzer	An electrical device that makes a buzzing noise and is used for signalling.
motor	A <i>motor</i> is an <i>electrical</i> machine that converts <i>electrical</i> energy into mechanical energy
series circuit	A series circuit comprises a path along which the whole current flows through each component.
conductor	An object or type of material that allows the flow of charge ( <i>electrical</i> current) in one or more directions.

**Timeline (Key events in chronological order for a history topic)**

600Bc	1800	1868	1879	1883	1887	1926	1974	2013
When it is believed electricity was invented.	First electric light invented.	First power station built.	Lightbulb invented by Thomas Edison	First plug socket introduced.	Wind turbines used to produce electricity	Work starts on the National Grid	First computer born	Climate Change Act.