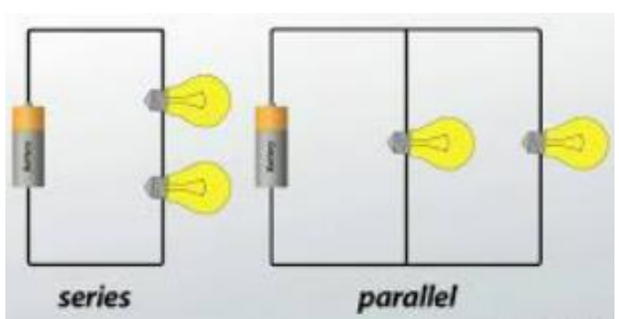
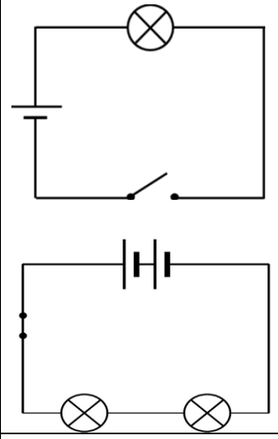
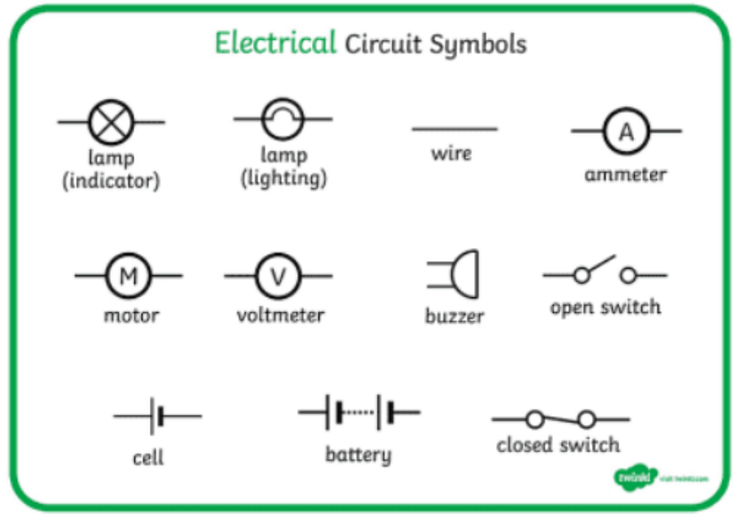
Lunsford Primary School – Science	Topic: Electricity	Strand: Physics	Year 6

Linked scientists
Nikola Tesla - Electrical & Mechanical Engineer who developed the AC electrical system and made important advances in technologies such as x-rays, neon lights and robotics

Key Vocabulary	
appliances	A **device** or machine in your home that is used to do a job. **Appliances** are often **electrical**
Battery / cell	Small **devices** that provide the **power** for **electrical** items such as torches
bulb	The glass **component** 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
circuit	A complete route which an **electric current** can flow around
circuit diagram	A drawn **diagram** of a **circuit** using **symbols** to represent components
conductor	A material that heat or **electricity** can pass through or along
current	A flow of **electricity, electrons,** measured in amps
electricity	A form of **energy** that can be carried by **wires** and is used for heating & lighting, or to **power devices**
insulator	A non-**conductor** of **electricity** or heat. It doesn't let **electricity** pass through
mains	Where the supply of water, **electricity** or gas enters a building
motor	A **device** that uses **electricity** or fuel to produce movement
parallel circuit	The **electric current** is divided into separate paths
resistance	The difficulty that the electric current has when flowing round a circuit
series circuit	All the **electric current** flows through each part of the **circuit**
switch	Controls the flow of electrical current around the circuit
symbol	A universal drawing of a **component** in a **circuit diagram**
voltage	An **electric** force to make **electricity** flow
wires	A long thin piece of metal that is used to fasten things, or to carry **electric current**



What I will know by the end of the unit	
To use recognised **symbols** when drawing **circuit diagrams**	**Circuits** have universal **symbols** so that when they are drawn, it is understood how they have been constructed.  
That the brightness of a **bulb**, or the volume of a **buzzer** depended on the **voltage** or number of **cells** in the **circuit**	**Batteries** produce **power**. ***What will make a bulb brighter or a buzzer louder?*** • When batteries power a circuit the voltage is shared between the components in the circuit. • More batteries or a higher voltage create more power to flow through the circuit. • Shortening the wires means the electrons have less resistance to flow through. ***What will make a bulb dimmer or a buzzer quieter?*** • Fewer batteries or a lower voltage give less power to the circuit. • More buzzers or bulbs mean the power is shared by more components. • Lengthening the wires means the electrons have to travel through more resistance
How to compare and give reasons for variation in how **components** function in a **circuit**	If you make the **wires** longer, the **bulb** will get dimmer, or the **buzzer** will become quieter. If you add more **batteries**, the **bulb** will get brighter, or the **buzzers** will get louder. This is because there is a greater current. If you add more **bulbs**, the bulbs will become dimmer.