

Lower Key Stage 2 - Forest Academy Knowledge organiser - Electricity

You will be learning to:

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

Electricity - What is it?

- Electricity is an electric current, which is the flow of electric charge.
- Electricity can occur naturally e.g. lightning, static electricity.
- There are two types of electrical current that we use to power appliances.

Mains electricity



Batteries



Key Vocabulary

circuit	A system of electrical components that make up an electrical circuit.
cell	Converts energy to electricity.
wire	A length of material that conducts electricity.
appliance	A device designed to perform a task.
batteries	A collection of cells.
current	this is the amount of electricity flowing through the circuit
voltage	Voltage is what makes electric charges move. It is the 'push' that causes charges to move in a wire or other electrical conductor.

Conductor or insulator?

Some materials let electricity pass through them easily. These are known as **conductors**. Many metals are good electrical conductors such as copper, iron and steel.

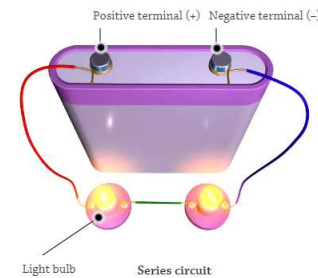
Some materials do not let electricity pass through them. These materials are known as **insulators**. Plastic, wood, glass and rubber are good electrical insulators.



Components of an electrical circuit

A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery. Materials that allow electric current to pass through them easily, called conductors, can be used to link the positive and negative ends of a battery, creating a circuit.

Some components of an electric circuit					
	Wire	cell	switch	buzzer	lamp
Circuit Diagram					
Picture					



When electric current is able to flow around a complete circuit it can be used by electrical appliances, such as light bulbs.

Famous Scientist

Thomas Alva Edison, widely considered as "America's greatest inventor" is known for inventions such as the incandescent light bulb, the phonograph, and the motion picture camera, apart from improving the telephone and telegraph.

