

Year 4

## Electricity

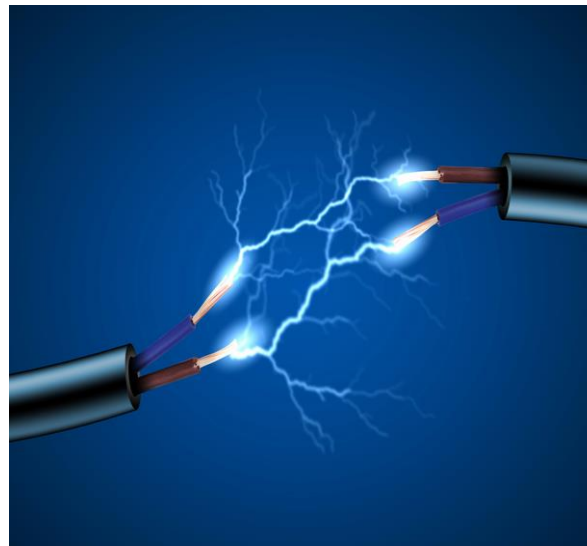
Later, in  
Year 5, you  
will learn:

Explore the  
functions of  
various  
circuitry  
equipment

### Knowledge

By the end of this unit of study, pupils will be able to:

One	Identify common appliances that run on electricity.	
Two	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	
Three	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.	
Four	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.	
Five	Recognise some common conductors and insulators, and associate metals with being good conductors.	



### Key Learning

Many household devices and appliances run on electricity. Some plug in to the mains and others run on batteries. An electrical circuit consists of a cell or battery connected to a component using wires. If there is a break in the circuit, a loose connection or a short circuit, the component will not work. A switch can be added to the circuit to turn the component on and off.

Metals are good conductors so they can be used as wires in a circuit. Non-metallic solids are insulators except for graphite (pencil lead). Water, if not completely pure, also conducts electricity.

### Key Vocabulary

Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol