

# Science Knowledge Organiser

## Electricity (Term 3)

## Year 4

### Our learning

In our science lessons this term, we will be learning about electricity. This is part of the **physics** aspect of science. Through our learning we will be considering the **cause and effect** of simple scientific processes.

As well as learning about how electricity works, we will also discuss how to use electricity safely.

### Information

Many household appliances, such as televisions run on electricity.

Some materials are electrical conductors such as copper, silver and gold. This means they let electricity pass through them.

Some materials are electrical insulators, such as plastic, wood, rubber and glass. This means they do not let electricity pass through them.

Electricity travels around in an unbroken circuit. A simple series circuit is made up of cells, wires, a bulb or buzzer and a switch.

A switch can be used to open (break) or close (complete) a circuit. When the switch is closed the electricity will travel around the circuit.

The cell in a circuit is a battery. A battery is stored electricity.

Electricity is very important but it can also be very dangerous. You should always be aware of safety rules when using electricity.

### Vocabulary

**electricity**– a form of energy that can give things the ability to move and work.

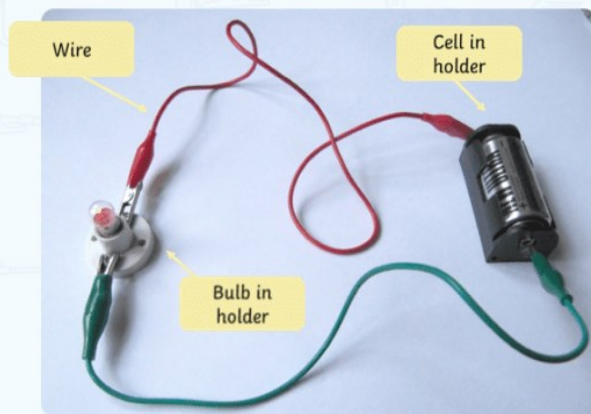
**appliances**– an electrical device or machine in your home that you use to do a job such as cleaning or cooking.

**bulb**– A part that gives light.

**buzzer**– A device that causes a buzzing sound.

**wires**– long, flexible pieces of copper that are used to carry electricity. They are wrapped in an insulator, such as plastic.

A simple circuit



### As a scientist I will...

- Recognise when a fair test is necessary.
- Make systematic and careful observations.
- Answer questions using scientific evidence.

#### Electrical conductors



Copper



Iron



Gold

#### Electrical insulators



Rubber



Paper



Plastic

