

# Y4: 'Electricity knowledge organiser

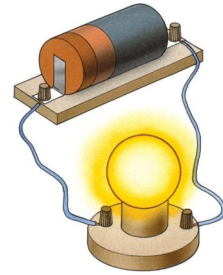


## What is electricity?

Electricity is the flow of an electric current or charge through a material. For example, from a power source through wires to an appliance

## Simple circuits

- A cell, wire and bulb are needed to construct a single circuit
- Switches can be used to open and close circuits
- Electrical circuits can be used to provide power, such as a lightbulb
- Circuits must contain a power source (battery/cell) in order to



## Conductors

- Some materials allow electricity to pass through them easily
- Materials that allow electricity to pass through them are called conductors



copper



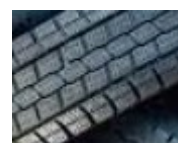
silver



water

## Insulators

- Other materials don't allow electricity to pass through them
- Materials that don't allow electricity to pass through them are called insulators



rubber



glass

## Vocabulary

**electricity:** the flow of tiny particles called electrons and protons.

**electrical appliances:** A device that uses electricity. This electricity will then be converted to heat, sound or motion

**circuit:** a complete path which electricity can flow around. It must include a source of electricity, such as a battery

**bulb:** an electrical component that produces light

**battery/cell:** a container that stores energy. Chemicals inside the battery store the energy

**motor:** a device that turns electrical energy into motion

**mains power:** is the electricity that is delivered to homes and businesses through an electric grid

**switch:** a device for opening and closing electrical circuits

**buzzer:** a component in a circuit that makes a sound when electricity goes through it

**conductor:** material that an electric charge can pass through

**insulator:** material that an electric charge cannot pass through

**crocodile clip:** toothed clips on the ends of electric wires. They are made of metal so electricity can pass through them

**wire:** a long thin piece of metal that is used to fasten things or to carry an electric current

**electrical symbol:** a picture used to represent various electrical and electronic devices or functions

