

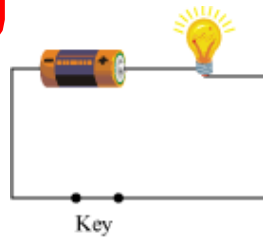


“Whatever you do, work at it with all your heart”

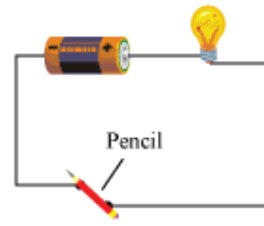
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## Electricity

Year 4  
Summer 1



Key is a good conductor



Wood is a bad conductor

### Key Knowledge:

To know that:

*Electricity can only flow around a complete circuit.*

*An electrical conductor will allow electricity to pass through it easily.*

*An electrical insulator does not allow electricity to pass through it.*

Common appliances—fridges, kettles, ps4s— run on electricity.

A simple circuit must include cells and wires and can also include bulbs, switches and buzzers.

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.

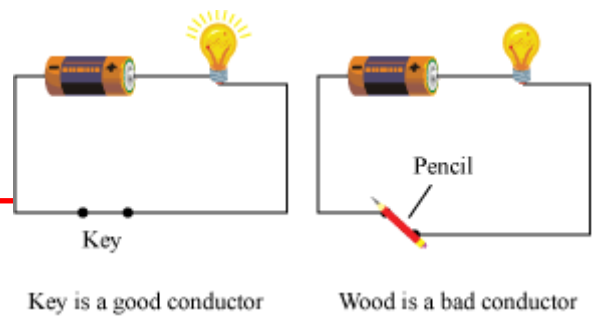
A switch opens and closes a circuit.

A lamp will not light if the switch is open.

The source of electricity can be from a battery or from the mains (plug in a wall)

Most metals are good conductors, as is water

Plastic, rubber and wood are examples of good insulators.



## Key Vocabulary:

Electricity - the flow of tiny particles called electrons and protons that flow from place to place.

Electrical appliances - items that need electricity to work, such as a kettle, toaster, oven, fridge.

Electrical circuit - a complete circle around which electricity can flow.

Cells - an electrical power supply that allows energy to flow through a circuit.

Component—the individual parts of a circuit e.g. wires, bulbs and buzzers are all components.

Wires - carry the electric current to various parts of an electrical system.

Bulbs - a device used to convert electricity into light.

Buzzers - an electrical device that makes a buzzing noise.

Battery - a container that stores energy until it is needed.

Electrical Insulator - materials that do not allow electricity to pass through them such as plastic, rubber, wood and glass.

Electrical Conductor - materials that allow electricity to flow through easily, such as metal.

Switch - something that stops or allows the flow of an electrical circuit.

Plug— a device used to allow electricity to flow from an electric supply to an appliance.

Mains electric— the electricity that is delivered to homes and businesses through an electric grid. Plugs in your home are often linked to the mains electric which is more powerful than a battery.