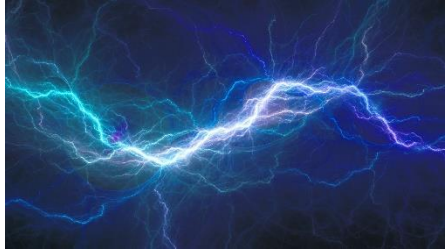


# Electricity

Electricity is a form of energy which can be used to power many common appliances such as lights, TVs and computers.



Appliances are made up of several components including cells (which provide the power), wires, bulbs, buzzers and switches.

A switch is a handy way of making a circuit complete or incomplete. They are used for turning appliances on and off again.

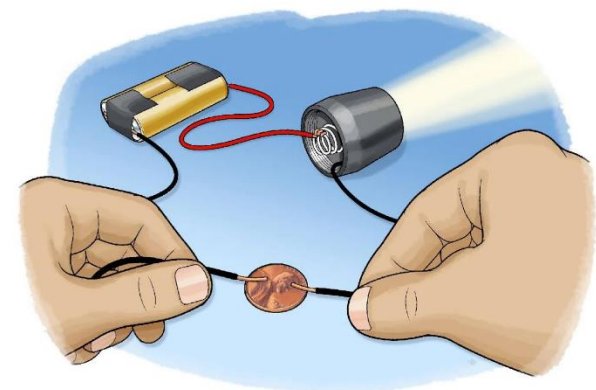
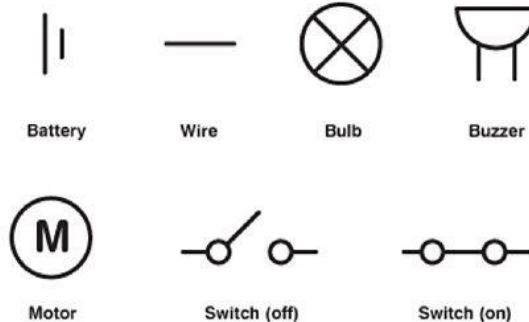
Some materials do not allow electricity to pass through them - these are known as insulators of electricity.

For an appliance to work, the components must be organised in a circuit without any breaks.

Some materials allow electricity to pass through them - these are known as conductors of electricity.

Metals are often excellent conductors of electricity.

When there is a break, or gap, in a circuit, it is called incomplete. When they aren't any breaks, it is called complete.



## Key Vocabulary

**Electricity:** a special kind of energy that can flow through certain materials, like wires, and make things work, like turning on lights or making machines go.

**Energy:** what makes things happen or work. It can take different forms, like the energy in food that helps you run and play, or the electricity that powers your toys.

**Appliances:** machines or devices that use electricity to do a specific job, like a refrigerator keeping your food cold or a TV showing your favorite cartoons.

**Components:** in electronics, components are the parts that work together to make devices function.

**Cells:** tiny power sources that provide electricity to devices. They're like the little batteries inside your toys or gadgets.

**Wires:** pathways made of metal that let electricity travel from one place to another. They are like roads for electricity.

**Bulbs:** are devices that use electricity to produce light. They are like tiny, bright lamps.

**Buzzers:** devices that make a buzzing sound when electricity passes through them. They are like electronic alarms.

**Switches:** electronic buttons that can turn electricity on or off. They control whether devices are working or not.

**Circuit:** a path for electricity to flow through. It's like a loop that connects all the parts needed for a device to work.

**Complete:** all the parts of something are connected and working together. Like a complete circuit that allows electricity to flow and make things run.

**Incomplete:** something is missing or not fully connected. An incomplete circuit stops electricity from flowing, and things won't work.

**Materials:** stuff things are made of, like metal, plastic, cloth, or wood. Different materials have different properties and uses.

**Conductor:** a material that allows electricity to flow through it easily, like metal. It helps the electric current move smoothly.

**Insulator:** a material that doesn't let electricity flow through it easily, like plastic or wood. It keeps the electric current from escaping.

**Metal:** a type of material that is often shiny, strong, and a good conductor of electricity.

**Plastic:** type of material that is often used to cover wires or make insulators. It doesn't let electricity pass through easily.

**Cloth:** in electronics, it can be used to protect wires or as a covering for certain components.

**Wood:** a natural material that comes from trees. It is not a good conductor of electricity and can be used to make insulators or structural parts.