

# Project glossary

## **3-core flexible cable**

A flexible cable used in household electrical wiring, containing three copper wires: the live wire, earth wire and neutral wire.

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## **appliance**

A piece of electrical equipment used in the home.

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## **battery**

A number of cells connected together.

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## **battery holder**

A component that holds one or more cells.

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## **brass**

A conductive metal that is used to make the pins in a plug.

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## **buzzer**

A component that makes a sound when part of a complete circuit.

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## **cartridge fuse**

A small safety device inside a plug that breaks the circuit if it becomes overloaded.

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## **cell**

A store of chemical energy that can be converted to electrical energy and used as a power source.

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## **circuit**

A collection of components connected by wires through which electricity can flow.

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## **coding**

A language used to give instructions to a computer.

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## **complete circuit**

A circuit that has no gaps in it, so electricity can flow around it.



**component**

A device used in an electrical circuit.

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**conductive**

Able to let electricity pass through.

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**conductor**

A material through which an electric current can flow.

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**copper**

A metal that is used inside electrical wires because it is conductive.

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**core**

The middle of a wire, usually made from copper.

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**crocodile clip**

A metal clip that is used to join electric wires to other components.

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**earth wire**

A green and yellow wire inside a 3-core flexible cable that does not carry an electrical current unless there is a fault. It is a safety wire that helps to prevent electric shocks.

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**electrical conductivity**

The ability of a material to allow an electric current to pass through it.

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**electric current**

The flow of electric charge through a circuit.

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**electric shock**

A sudden, painful feeling when an electric current flows through the human body.

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**electricity**

A form of energy that provides power and makes appliances work.

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**filament**

A thin wire inside a light bulb that produces light.



**incandescent light bulb**

A light bulb that produces light when an electric current flows through a filament, making it heat up and glow.

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**incomplete circuit**

A circuit that has gaps in it, so electricity cannot flow.

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**insulator**

A material that does not allow an electric current to pass through.

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**lamp**

A component with a bulb and a holder that emits light when part of a complete circuit.

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**light bulb**

An electrical device that produces light.

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**light-emitting diode (LED)**

A device with two legs that emits light when part of a complete circuit.

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**live wire**

A brown wire inside a 3-core flexible cable that carries an electric current into an appliance from the mains socket.

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**mains electricity**

Electricity generated in power stations and supplied to buildings through power lines.

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**material**

The substance that things are made from, such as metal, plastic or wood.

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**micro:bit**

A small, programmable computer with an LED light display, buttons and sensors.

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**motor**

A component that creates movement when part of a complete circuit.



**neutral wire**

A blue wire inside a 3-core flexible cable that carries the electrical current out of the appliance back into the socket.

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**non-conductive**

Unable to let electricity pass through.

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**power station**

A building or group of buildings where electricity is produced.

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**programmable**

Able to be programmed so that a machine will perform actions automatically or in a particular order.

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**push-to-break switch**

A switch that is normally closed. Pushing the button opens a gap and creates an incomplete circuit.

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**push-to-make switch**

A switch that is normally open. Pushing the button closes a gap and creates a complete circuit.

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**pylon**

A tall structure that carries power lines from power stations to buildings.

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**rechargeable**

A battery that is able to have its electrical energy restored.

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**reed switch**

An electromagnetic switch used to control the flow of electricity in a circuit. It is operated by a magnet.

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**resistance**

The ability of a conductor to oppose the flow of an electric current.

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**rocker switch**

A switch that works like a seesaw. When one end is pressed, the other end pops up.



**sensor**

A device that detects changes in the environment.

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**series circuit**

A circuit that forms a loop with a single path for an electric current to take.

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**socket**

A device in a wall where equipment is connected to mains electricity via a plug.

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**source**

Where electricity comes from, such as a cell or the mains.

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**switch**

A component that can make or break a circuit.

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**three-pin plug**

An electrical plug with three metal pins that fits into a socket.

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**toggle switch**

A switch that is activated by a lever.

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**tungsten**

A conductive metal that is often used as a filament in an incandescent light bulb.

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**wire**

A conductive core coated in insulating plastic that an electric current flows through, connecting other electrical components.



# Scientific terms glossary

## **bar chart**

A type of chart that uses blocks or rectangles to show different amounts.

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## **compare**

To look at two or more things closely and see what is the same or different.

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## **conclusion**

An explanation of what has been found out using data collected.

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## **data**

Collected information or facts, including numbers, words, measurements or observations.

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## **diagram**

A drawing with labels that show the parts of something.

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## **equipment**

An object or objects that are needed for a particular purpose, such as a data logger or light meter app.

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## **fair test**

A test or investigation in which only one variable is changed each time measurements are made.

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## **findings**

The information or facts that a person discovers from carrying out an observation, investigation or research.

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## **investigation**

An activity that involves a person studying a subject or problem carefully to learn facts or answer a question. An investigation includes planning, doing, recording and reviewing stages.



**method**

A set of instructions or steps to follow in a specific order to complete a particular task.

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**observe**

To watch or look at something carefully.

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**prediction**

A statement made by a person where they say what they think will happen in the future, using their knowledge or experiences.

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**question**

Something we ask using the words how, what, where, when, who and why.

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**record**

To write down data or observations, such as numbers, measurements or words, using lists, tables, charts or labelled diagrams.

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**research**

To study a subject to discover new facts or information.

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**results**

The data collected from an investigation or test.

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**table**

A way of recording data in rows and columns.

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**variable**

A factor, such as an object or condition, that changes during an investigation.

