Science Knowledge Organiser

Topic: Electricity	Year: 6	Strand: Physics	Southwold Primary School

What should I already know?

- Electricity is a form of energy that can be carried through wires and is used to power objects and devices.
- Sources of light and sound might need electricity to work.
- Where electricity comes from.
- A range of appliances that use electricity and name some.
- What a circuit is and the components that might be found in a circuit e.g. bulbs, motors, buzzers.
- What electrical conductors and insulators are.
- What happens when a switch is used in a circuit.

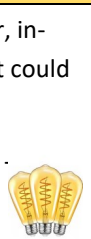
What will I know by the end of this unit?

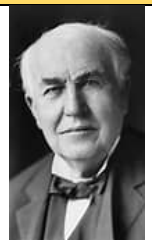
- Make circuits using a range of components e.g. cells, bulbs etc.
- Make circuits that have no breaks in them.
- Know the symbols used for all common electrical components.
- Be able to explain basic electrical safety.
- Draw full circuits using the circuit symbols correctly.
- Identify which components are used in a circuit from a circuit diagram.
- Make predictions about whether a circuit will work or not.
- Carry out a fair test to investigate adding voltage to a circuit.
- Compare a range of circuits based on the brightness of bulbs.

Thomas Edison

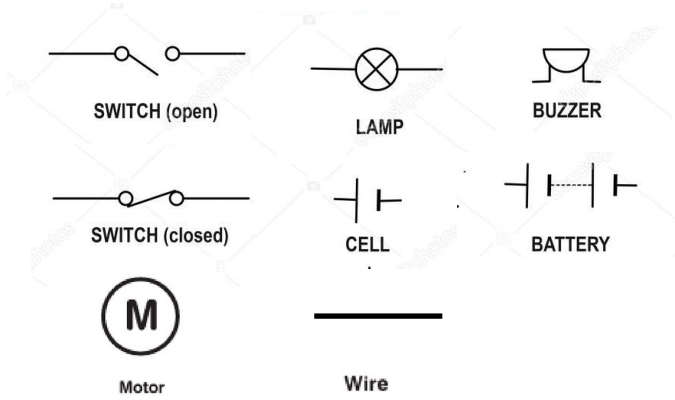
Thomas Edison, an American inventor, invented the phonograph (a device that could record and replay sound).

Edison invented the lightbulb in 1879 - first light that did not need oil or gas.





Circuit symbols



Green Electricity

Making electricity by burning gas or coal is bad for the environment because this will also create CO2. This carbon dioxide is a greenhouse gas and adds to the warming of the Earth (Global warming).

Using wind, solar and tidal energy for the production of electricity, is called green electricity. The word green stands for environmental friendly.

Working Scientifically

- Observe changes.
- Setting up comparative tests to find out the effect of increased voltage.
- Drawing conclusions based on results.
- Drawing representation of electrical setup using symbols.

Vocabulary

battery	Small devices that provide the power for electrical items such as torches.
bulb	A bulb gives off light when **electricity** passes through it.
buzzer	An electrical **devise** that gives off a sound.
cell	A cell is one **battery.**
circuit	A complete route through which **electricity** can flow.
component	A part of a circuit; a wire, buzzer, bulb, etc.
conductor	Material through which heat or **electricity** can flow.
current	A flow of **electricity** through a **circuit.**
device	An item that is invented for a certain purpose.
electricity	A form of energy that can result in heat, light and/or movement.
electrons	Small particles that can move through wire and creating an **electrical current .**
insulator	Material through which electricity can not flow.
motor	A device that uses electricity to create movement.
switch	A device that can close or open a **circuit.**
voltage	How strong the electrical force is .