

# Electricity



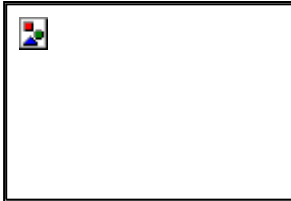
## Electrical Safety

Electricity can be extremely dangerous if it is not used safely. It can cause burns, shocks, serious injury and (in extreme cases) even death.

There are many electrical dangers, both in the home and outdoors.

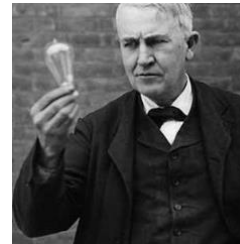
### Some Important Electrical Safety Trips

- Do not put fingers and other objects in an outlet
- Never use anything with a cord or plug around water
- Keep metal objects away from toasters
- Stay away from power stations and power lines
- Never pull a plug out by its cord



## Significant Scientists

**Benjamin Franklin (1706-1790)** In 1750, he proved that lightning is electricity by flying a kite in a storm and extracting electrical sparks from a cloud. This led to his invention of the lightning rod.



**Thomas Edison (1847-1931)** was an American inventor who created the first lightbulb.

**Michael Faraday (1791-1867)** was a Victorian chemist and physicist who invented the electric motor in 1821. He also worked on magnetism and discovered how to make electromagnets, which are used in electric generators.



## Key Vocabulary

Electricity	is an energy. This energy can be used to power <b>electrical</b> items such as toasters, cookers, televisions and computers.
Electrical current	is a complete pathway that electricity can flow around. It must have a source of electricity like a battery.
Electrical wire	is made from very thin threads of a material that conducts electricity well – usually copper. It connects the components in a circuit.
Conductor/ Insulator	A conductor is a material that lets electricity pass through it. An insulator is a material that does not let electricity pass through it.
Bulb	turns electrical energy into light and heat energy
Motor	turns electrical energy into movement energy
Buzzer	turns electrical energy into sound energy
Switch	A component that can break and re-connect the circuit to stop and start the electricity flowing.
Resistance	How components in a circuit slow down or weaken the flow of electricity.

## Circuit symbols

