

Vocabulary




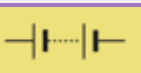

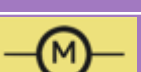



physics	The study of forces including electricity and the way it affects objects.
circuit	A complete route which an electric current can flow around.
symbol	A visual picture that stands for something else.
current	A flow of electricity through an object such as a wire.
amps (A)	How electric current is measured.
voltage	The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.
volts (V)	How the voltage is measured.
resistance	The difficulty that the electric current has when flowing around a circuit.
electrons	Very small particles that travel around an electrical circuit.
battery	A small device that provides power for electrical items (a collection of cells).
cell	A device used to generate electricity. A cell is a single unit.

Electricity | Class 4 | Autumn 2020

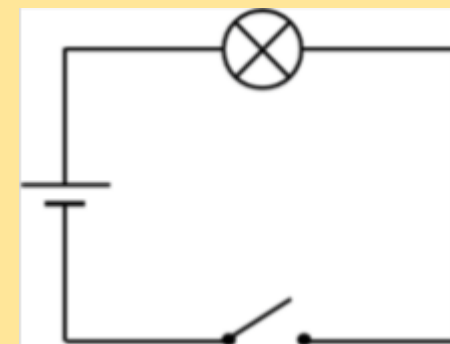
Timeline

1600	An English scientist, William Gilbert, first coined the word 'electricity' from the Greek word for amber: elektron.
1729	A ground-breaking discovery is made that electricity is not just generated from rubbing materials together but that some materials carry electrical charges called 'conductors' and some don't ('non-conductors').
1752	June 10, 1752, Benjamin Franklin flies a kite during a thunderstorm and collects ambient electrical charge in a Leyden jar, enabling him to demonstrate the connection between lightning and electricity.
1800	The first electric light is invented by English scientist Humphry Davy. Alessandro Volta, an Italian, invents first battery.
1879	Thomas Edison, an American, invented the modern lightbulb.
1883	The first plug and socket are unveiled in England
Late 1880s – Early 1890s	The 'War of the Currents' takes place when Thomas Edison (Direct Current – DC) and Nikola Tesla (Alternating Current – AC) clash over which type of electricity supply is best. Tesla won.
1939-1945	During World War II, electricity was a threat, as light allowed the enemy to identify places to bomb.

Electricity Circuit Symbols

	Lamp (indicator)
	Lamp (lighting)
	Cell
	Battery
	Wire
	Motor
	Buzzer
	Open switch (off)
	Closed switch (on)

A scientific diagram of an open circuit:

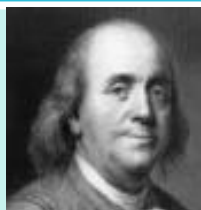


The lightbulb in this circuit will not light up until the switch is closed.

Important People



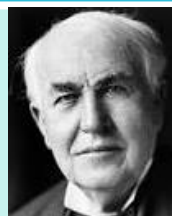
Alessandro Volta
1745-1827



Benjamin Franklin
1706-1790



Lewis Latimer
1848-1928



Thomas Edison
1847-1931



Nikola Tesla
1856-1943