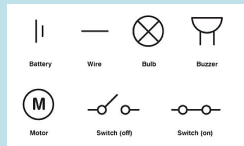


# Science—Year 6—Electricity

## Key Knowledge

- A battery is made up of cells. Cells can vary in voltage and size (1.5V, 4.5V, 9V)
- A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery/ cell.
- Current: this is the amount of electricity flowing through the circuit.
- A circuit diagram uses recognised symbols to represent the components in a circuit.
- These symbols can be used to represent these components in a circuit



- Circuit diagrams are rectilinear in shape.
- The number of cells in a circuit will affect how well the components work.
- The greater the number of cells in a circuit the brighter the bulb will shine/the louder a buzzer will buzz.

## Vocabulary

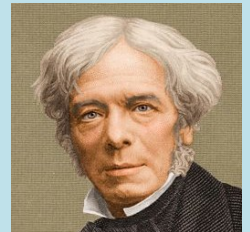
electricity	bulb	appliances/device	motor
electrical circuit	bright	complete circuit	slow(er)
circuit diagram	switch	circuit symbol	insulator
components	volume	cell	volts
battery	fast (er)	short circuit	resistance
Positive	metal	resistance	
connect	voltage	dim	
wire	current	buzzer	

## Key People

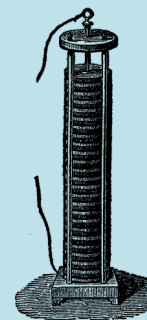
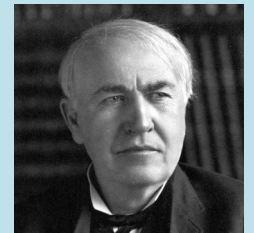
**Alessandro Volta** (1745—1827) Using zinc, copper and cardboard, this Italian professor invented the first battery. Volta's battery produced a reliable, steady current of electricity. The unit of voltage is now named after Volta.



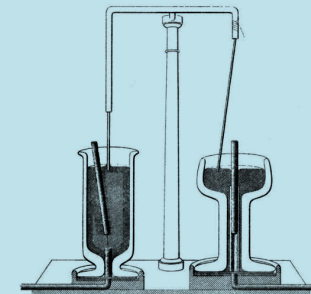
**Michael Faraday** (1791–1867) A Victorian chemist and physicist who invented the electric motor. His motor featured a stiff wire in a container of mercury and a permanent bar magnet in the center of the container. He sent electricity through the wire and created a magnetic field around it. This field interacted with the field around the magnet and caused the wire to rotate around the magnet.



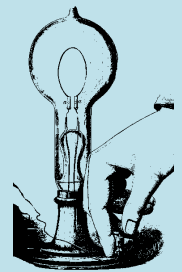
**Thomas Edison** (1847-1931) An American inventor who attached wires to a thin strand of paper, or filament, inside a glass globe. The filament began to glow, which generated some light. This became the first incandescent light bulb. A thin, iron wire later replaced the paper filament.



First battery



First motor



First light bulb