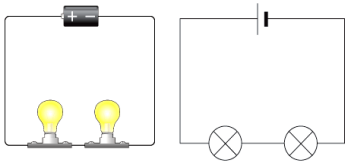
Burwell Village College Primary

Year 6 Science - Electricity

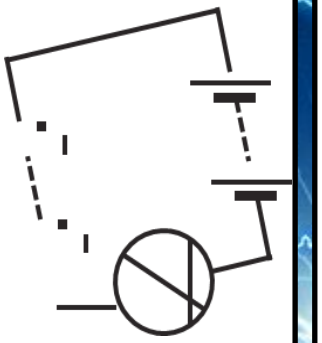
Series circuit



A series circuit is a circuit that has only one route for the current to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops.

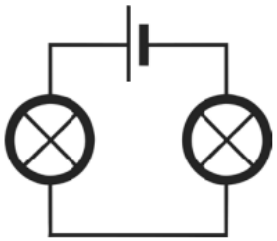
Brighter bulbs

More batteries or a higher voltage will create more power to flow through the circuit. Additionally, shortening the wires means the electrons have less resistance to flow through so the bulbs will be brighter or the buzzer will be louder. What else do you think might make bulbs brighter?

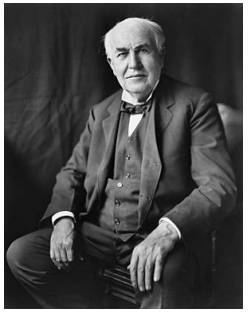


Dimmer bulbs

Fewer bulbs or a lower voltage give less power ti a circuit. By adding more bulbs or buzzers to a circuit means the power us shared by more components - leading to the power being stretched, Lengthening the wires means that electrons have ti travel through more resistance, The bulbs will be dimmer or the buzzer will be quieter.



Thomas Edison



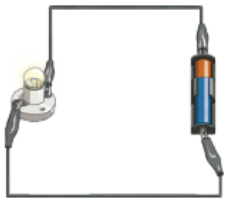
Thomas Edison (1847-1931) was an American inventor and entrepreneur who invented many devices which have impacted our lives today. Edison developed one of the first practical light bulbs, but contrary to popular belief, did not invent the light bulb. Edison's received 1093 patents, which was the most granted to any inventor in his time.

Key vocabulary

circuit	a path that an electrical current can flow around
symbol	a visual picture that represents something else
cell	a device that stores energy as a chemical unit until it is needed (a cell is a single unit)
battery	a collection of cells
current	the flow of electrons which travels around a circuit (currents are measured in amps)
amps	the unit used to measure electric currents
voltage	Voltage is the force that makes the electric current move through the wires. The greater the voltage, the more current will flow.
resistance	the difficulty that the electric current has when flowing around a circuit.
electrons	very small particles that travel around an electrical circuit

Complete circuit

A complete circuit is when electricity can flow around a connected circuit. There are no breaks in the circuit.



Incomplete circuit

There is a break in the circuit that prevents the electricity from flowing.

Circuit symbols