

Year 6 Science Knowledge Organiser

Term: Summer 1

Electricity

Key vocabulary

battery	A device consisting of one or more cells.
cell	A single electrical energy source.
circuit	A complete path that an electric current can flow around. It flows from the battery, through wires and devices before returning to the battery. If the circuit is not complete the electric current cannot flow.
circuit diagram	A visual representation of an electrical circuit using symbols to represent the electrical components.
circuit symbol	A symbol used to represent various electronic components or functions in a diagram of a circuit.
switch	An electrical component that can make or break an electrical circuit. When a switch is open (off), there is a gap in the circuit and electricity cannot flow around the circuit.
voltage	Volts are a measure of the energy of a flow of electricity. Mains electricity carries a voltage of 210-240 volts. A typical cell in school has 1.5 volts.

Significant scientist

Nicholas Tesla
(1856-1943)



Nicholas Tesla was a Serbian American engineer and physicist. He invented the first alternating current (AC) motor and developed AC generation and transmission technology. He worked for Thomas Edison when he first moved to New York.

Peter Rawlinson



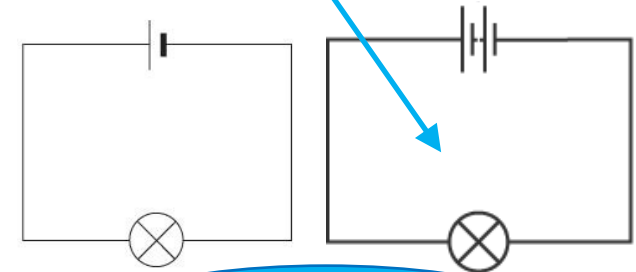
Peter Rawlinson is a British engineer based in California. He is working on the development of electric vehicles, providing clear vision for a next-generation product.

Circuit symbols

cell	
battery	
wire	
bulb	
buzzer	
motor	
switch	

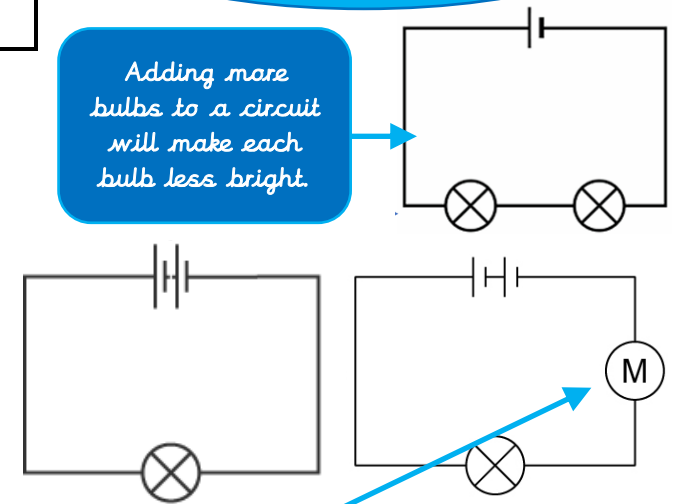
Adding more cells to a circuit makes a bulb brighter:

The bulb in this circuit will be brighter.



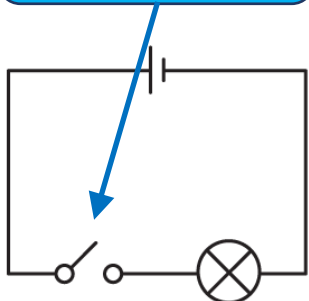
If you use a battery with a higher voltage, the bulb would also be brighter.

Adding more bulbs to a circuit will make each bulb less bright.



If we add a motor into the circuit with a single bulb, the bulb will be less bright. If we add more motors to the circuit, each motor will spin more slowly.

Switch turned off (open).



This breaks the circuit so it is not complete and electricity cannot flow. The bulb will turn off. from each other.