

Science- Electricity - Year 6 Autumn Term

Prior Learning:

Year 4:

- Identify common appliances that run on electricity
- Construct a simple circuit
- Identify whether or not a lamp will light
- Recognise a switch opens and closes a circuit
- Recognise some common conductors and insulators

Key Vocabulary

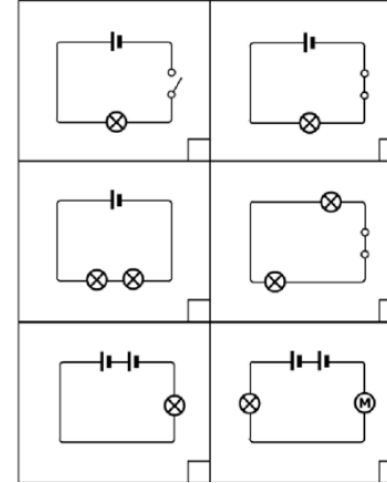
circuit	A complete path around which electricity can flow
circuit diagram	Representation of an electrical circuit using recognised standard symbols
symbol	A 'drawing' that represents something
cell	Device used to provide electricity
bulb	Glass housing a filament that emits light when heated by electricity
motor	Device for converting electrical energy into motion
switch	Component that can disconnect/connect a circuit
voltage	The 'strength' of a cell
insulator	Material that electricity cannot flow through.
conductor	A material with electricity can flow through

Granville T. Woods (1856-1910)

Prolific US inventor - 35 patents in the field of electricity. Responsible for many aspects of electric railways.

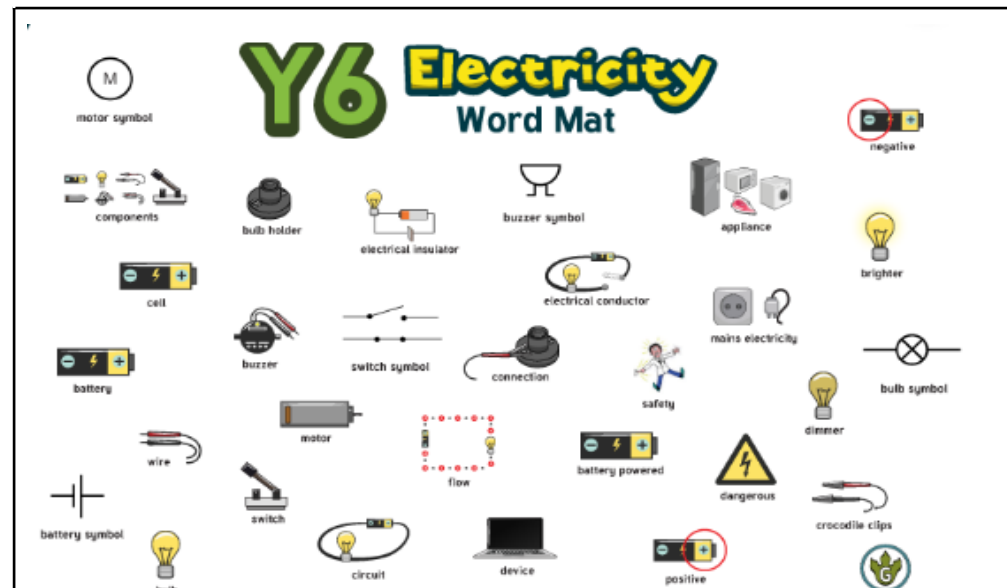


When changes are made to circuits, components can function differently. Cells are needed to provide the power.



Key Facts

- Adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound.
- If you use a battery with a higher voltage, the same will happen.
- Adding more bulbs to a circuit will make each bulb less bright as the electricity is shared.
- using more motors will make them spin more slowly.
- Using more buzzers will make each buzzer quieter.
- Turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow.
- Recognised symbols are used to draw circuit diagrams.



Can I answer:

Explain how the brightness of a lamp or the volume of a buzzer changes with the number and voltage of cells used in the circuit.

Give reasons for variations in how components function, including bulbs, buzzers and motors.