

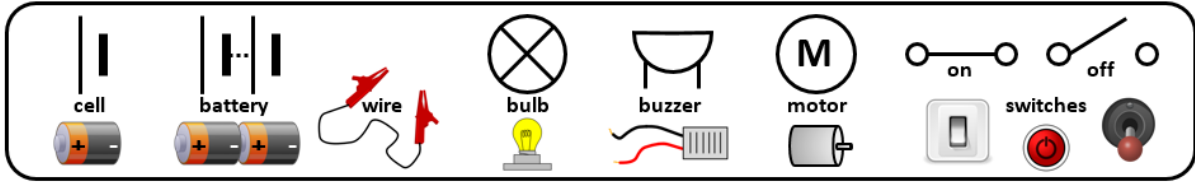
**Unit: Electricity**

- What should I already know?
- |   |                               |  |
|---|-------------------------------|--|
| *mains and battery powered items<br>*simple circuits and components | *switches<br>*faulty circuits | *conductors and insulators<br>*changing circuits |
|---|-------------------------------|--|

**Scientific Learning**

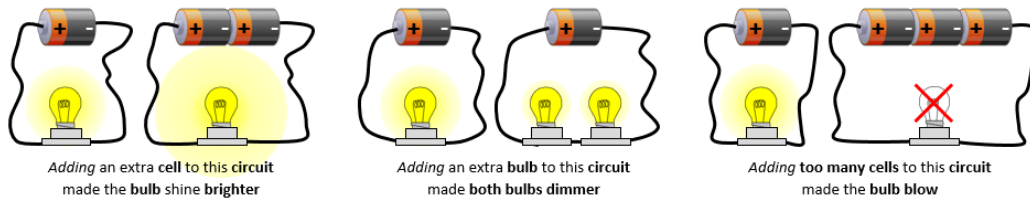
## Circuit Symbols

Circuit symbols are used to represent different elements and components in an electrical circuit



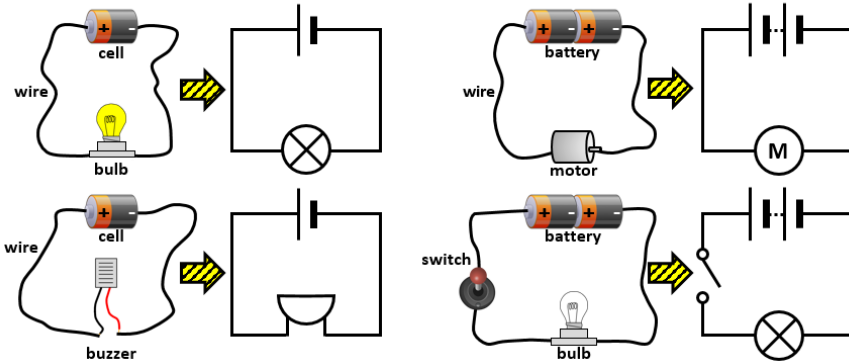
## Changing Circuits

There are several ways a circuit can be changed (adding or taking away components OR changing cell voltage)



## Circuit Diagrams

Circuit diagrams can be used to represent electrical circuits. It makes them easier to draw!

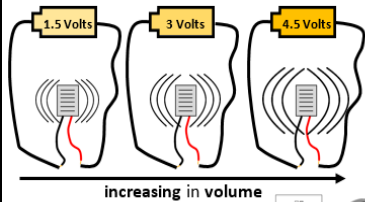


### What should I know by the end of the unit?

- \* **P5:** Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- P6:** Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- P7:** Use recognised symbols when representing a simple circuit in a diagram

### Voltage

Increasing or decreasing the voltage of the cell used in a circuit will also change how it functions

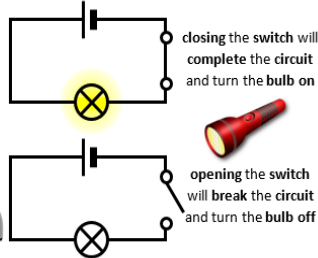


increasing in volume

**WARNING:** The voltage in mains electricity is dangerously high. NEVER fiddle with, or attempt to repair, an electrical appliance when it is plugged in

### Switches

Switches are a very simple way of controlling the flow of electricity around a circuit



closing the switch will complete the circuit and turn the bulb on

opening the switch will break the circuit and turn the bulb off

### Circuits in Use

All appliances that run on electricity will have a circuit inside of them



<p><b>Vocabulary</b></p> <p>cell battery switch bulb motor buzzer series parallel circuit electricity</p>	<p>crocodile clips wire complete circuit symbol circuit diagram fuse wire</p>	<p>bright dim filament electromagnet conductor insulator plug mains</p>
---	---	---