Electric Current & Potential Difference

Electric Current

ELECTRIC CURRENT — the flow of charge around a circuit.

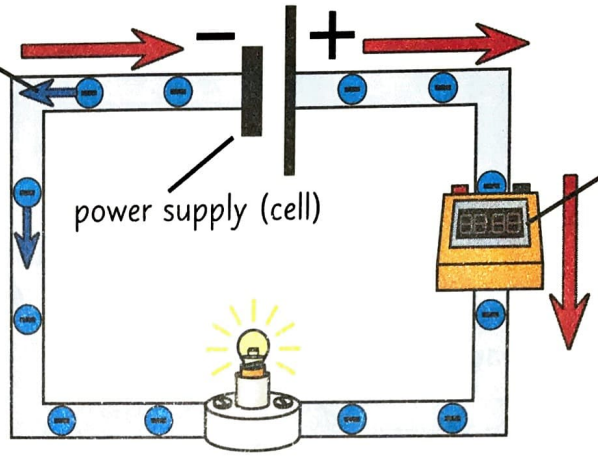
Current is measured in amperes, A.

Electric current can only flow if the circuit is complete.

Charges (negative electrons) move from negative to positive.

However, on circuit diagrams, current is shown as moving from positive to negative.

I know this is silly, but it's true.



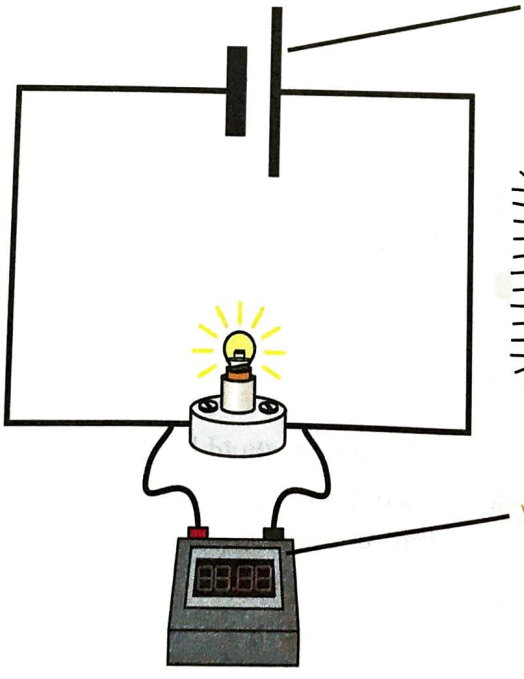
Ammeter — measures electric current through circuit.

Current is not used up — the amount of current that flows out of a cell is the same as the amount that flows back into it.

Potential Difference

POTENTIAL DIFFERENCE — the driving force that pushes charge round a circuit.

Potential difference is measured in volts, V.



Potential difference is provided by the power supply.

You can put power supplies (cells/batteries) together to make a bigger potential difference.

Voltmeter — measures potential difference across a component. (In this case, the bulb.)

Potential difference rating of:

- **a battery — tells you the potential difference it will supply.**

- **a bulb — tells you the maximum potential difference that you can put safely across it.**