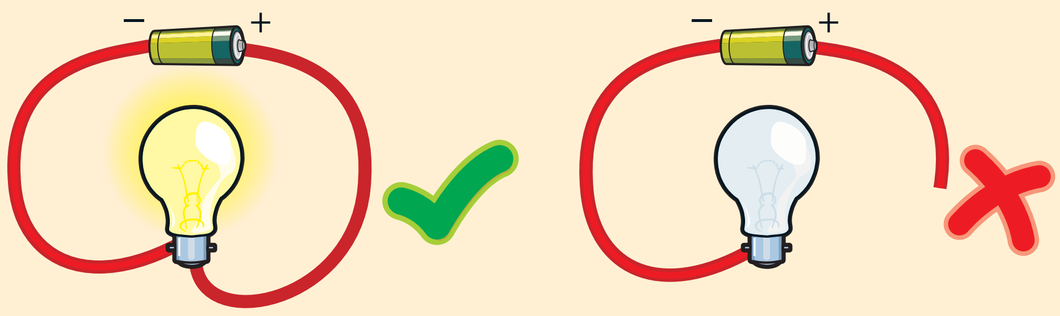
ELECTRICAL CIRCUITS

Electric current is the flow of charge around a circuit.

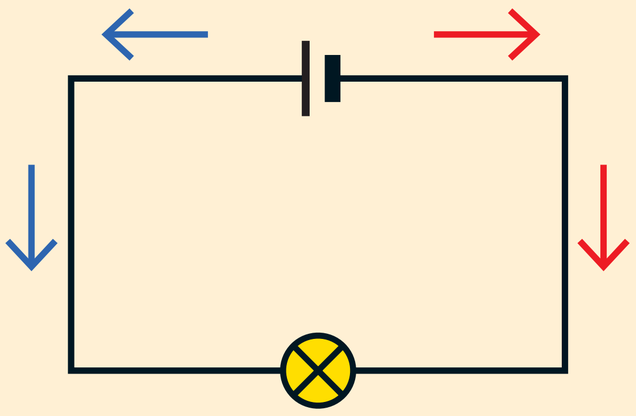
CIRCUIT

Electric current can only flow if there is a complete circuit. Any gaps will stop the current flowing.



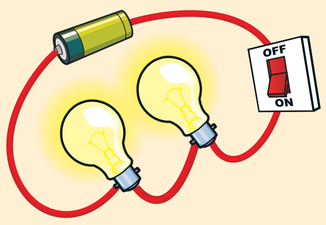
- **In a circuit, a battery provides the energy (voltage) to push charge around the circuit. A battery is made up of numerous connected cells.**
- **Ammeters are used to measure electric current.**
- **Current cannot be used up.**

CONVENTIONAL CURRENT

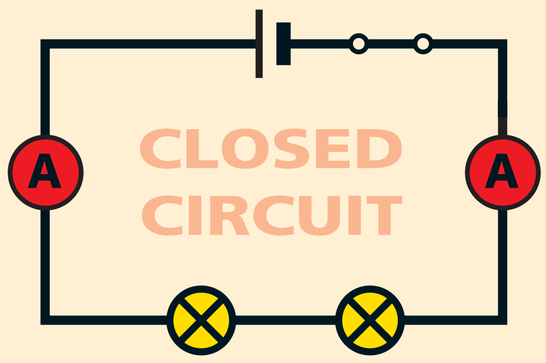


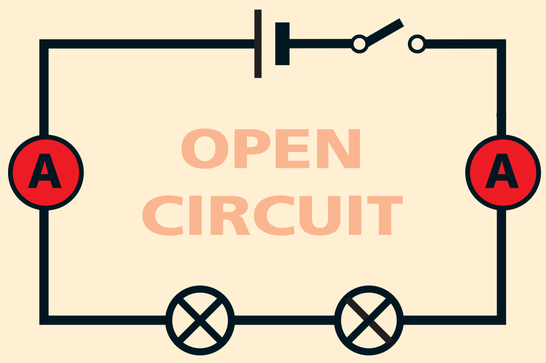
Conventional current is shown on circuits as flowing from positive to negative. However, the moving electrons actually have a negative charge and flow in the opposite direction to conventional current.

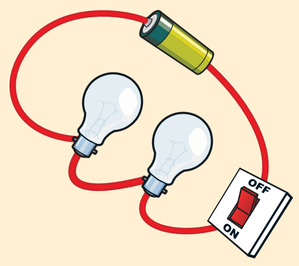
SERIES CIRCUIT



The electrics in computers, stereos and televisions contain series circuits.



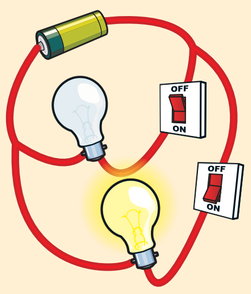


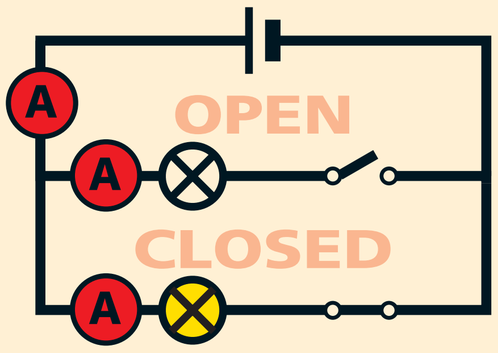


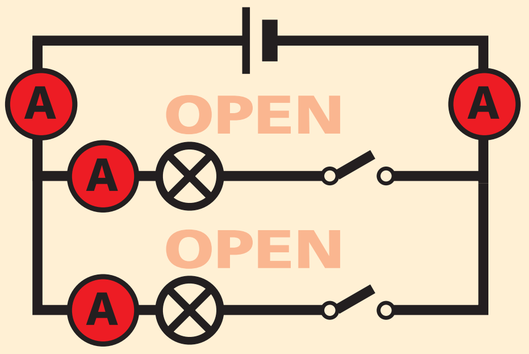
- **The current is the same anywhere in this circuit, as the current can only take one path.**
- **The current can be turned on (switch closed) or off (switch open).**
- **The more cells in the circuit, the brighter the bulbs will be.**
- **The more bulbs there are in the circuit, the more resistance against the current. Therefore, the bulbs will be dimmer.**

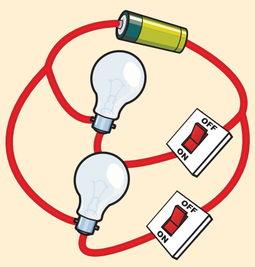
PARALLEL CIRCUIT

The mains electricity in a house is a parallel circuit, allowing appliances to be used independently.









- **The current takes more than one path.**
- **The current joins back up again on its way back to the battery. Therefore, the current is the same at the start and at the end of the circuit.**
- **Switches can be turned on or off to allow or restrict the flow to one or more parts of the circuit.**
- **Remember:** Current is not used up.

daydream EDUCATION
©Daydream Education 2013. All rights reserved.