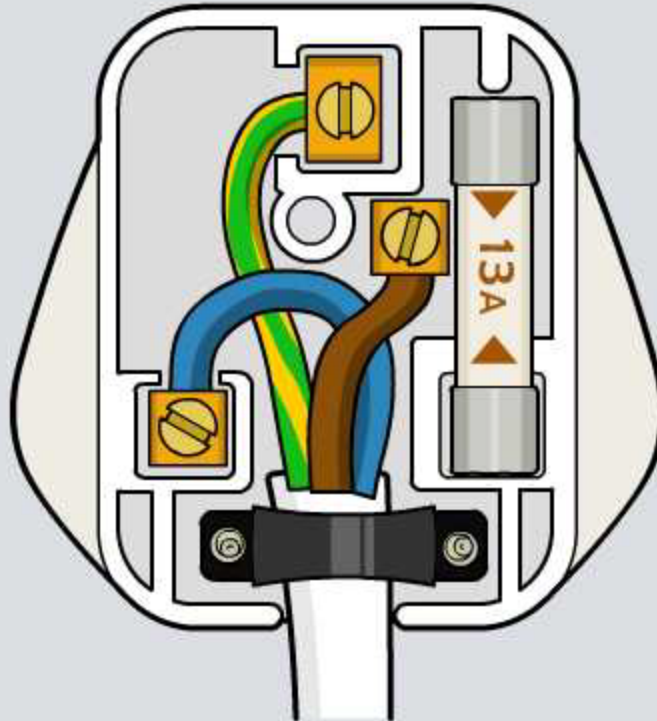


What Are Circuits?



Early experiments with electricity

Benjamin Franklin was a scientist in the 18th century.

He carried out many experiments with electricity, including this one.

Franklin proved the link between lightning and electricity using a kite attached to a metal key.

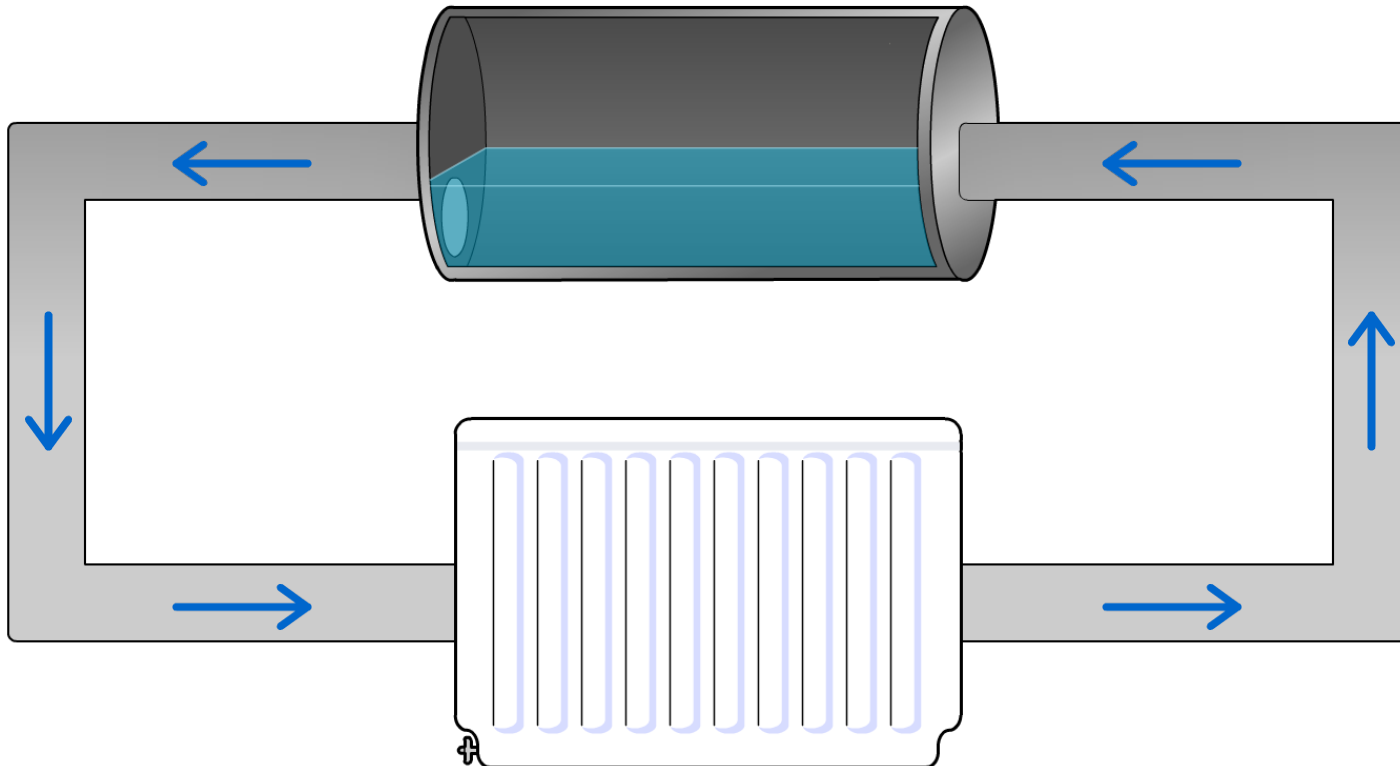
Don't try this at home!



What is an electrical circuit?

An electrical circuit is like a central heating system:

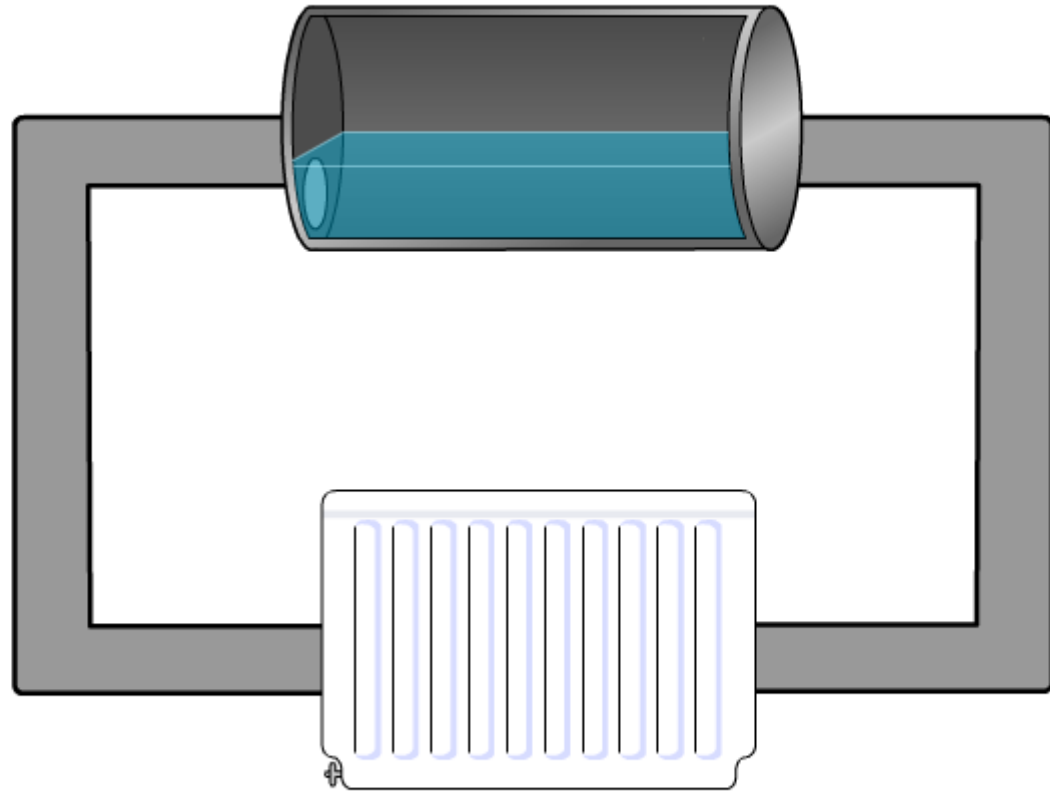
- There is a pump that pushes water around the system.
- The water everywhere starts to move at the same time.
- There are pipes that carry the water.
- The water flows through the pipes.

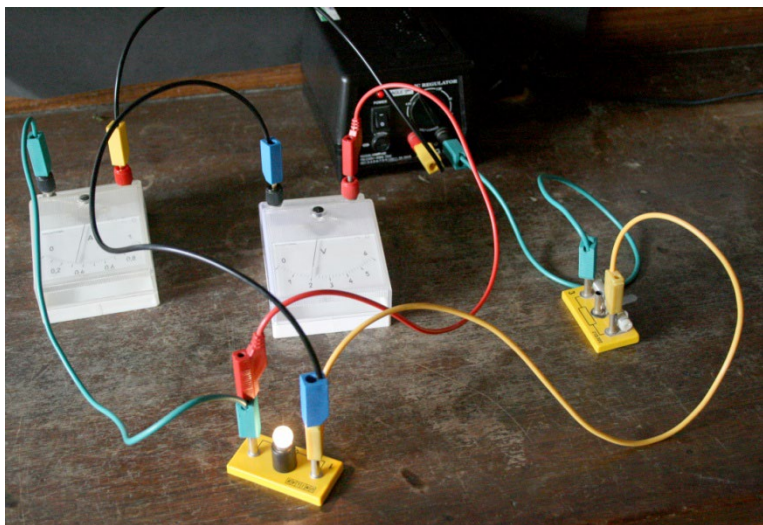


What are the components of an electrical circuit?

As we have seen, an electrical circuit is a bit like a central heating system.

Click "**play**" to find out more.

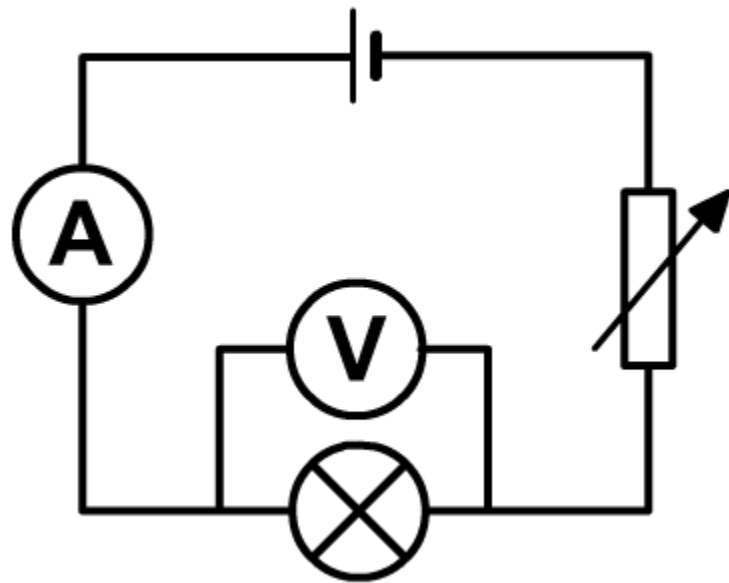




Scientists don't draw circuits as they look in real life. This is because it takes too long and each person would draw something slightly different.

Instead, they use **circuit symbols** to represent each component in the circuit. They are drawn exactly the same way each time!

Wires are drawn as straight lines. They don't have to represent the real lengths of the wires.



Match the circuit symbols

Which component does each symbol represent?



open switch

motor

bulb

closed switch

voltmeter

cell

ammeter

variable resistor



solve



What are the components in this electrical circuit?

