

## Year 6 Knowledge Organiser - Electricity



### Non-renewable mains power

Most of the electricity in the UK is made using **non-renewable** power stations. These power stations **burn oil, coal or gas** to create **steam** which turns the generator.

Oil, coal and gas are **fossil fuels**. They are non-renewable which means that they will eventually run out one day. This is because they are naturally occurring and take thousands of years to make. Burning these fossil fuels can also damage **the environment**.

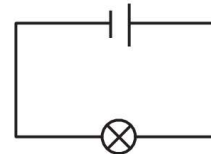
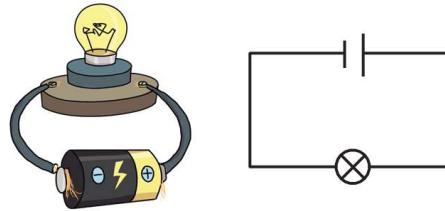
### Renewable mains power

We can also make electricity using renewable energy. Renewable energy sources like **the Sun, wind and sea** can be used over and over again and should not run out. We are beginning to use these sources more as they do not damage our environment.



### Series circuit

The **circuit** has to be complete to allow the **electricity** to travel all the way around it.

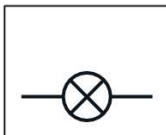


### Scientific Symbols

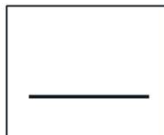
When scientists draw electrical circuits, they use **scientific symbols** to show **different components**.



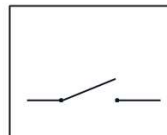
battery or cell



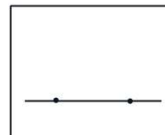
bulb



wire



open switch (off)



close switch (on)



motor



buzzer

### Key vocabulary

**series circuit** – a circuit where all the components are connected in one single loop

**cell** – a portable store of energy

**bulb** – a component that produces light

**current** – the flow of electricity in a circuit

**voltage** – causes the current to flow

**complete circuit** – a circuit that does not have a break in it

**incomplete circuit** – a circuit that has a break in it

**switch** – a component that allows a current in a circuit to be turned on and off

**buzzer** – a component that makes a buzzing or beeping sound

**solar power** – using light energy from the Sun to generate electricity

**wind power** – using wind to generate electricity

**renewable** – energy sources that do not run out

**non-renewable** – energy sources that will eventually run out, such as fossil fuels (coal, oil and natural gas)