

A diagram of the solar system. On the left is a large, glowing yellow and orange Sun. Eight white elliptical orbits curve from the Sun towards the right. Various planets are shown on these orbits: a small red planet (Mars), a blue and green planet (Earth) which is highlighted with a yellow circle, a brown and white striped planet (Jupiter), a yellow and white striped planet with a ring system (Saturn), and a blue planet (Uranus). The background is a dark space filled with small white stars.

## SCIENCE – Earth's place in the solar system

We live on planet Earth which is one of eight planets in our solar system. Our solar system is a collection of eight planets and their moons which orbit the Sun; along with asteroids, comets and meteoroids (which we may see as shooting stars).

## The Sun

Just like all the stars we can see in the night sky, our Sun is also a star. The stars that we see at night are just a lot, lot further away. The closest stars are about four light years away (a light year is the distance that light can travel in a year – this is such an unbelievably large distance it is hard to imagine). A star is a huge ball of burning gas which is held together by gravity. They are a light source as they produce their own light.



### Size

In the very centre of our solar system is the Sun, which is about 1.3 million times as big as planet Earth.

The diameter of the Sun is about 1.391 million km, where the Earth is only 12,742 km.

Due to the Sun's immense size it has a huge gravitational pull. This force keeps all the planets in our solar system in orbit.



## The Moon

A 'moon' is the name of a body which orbits another body, as long as it is not a star.

Earth has its own moon which can be seen on any clear night. Just like how the Earth orbits the sun, the Moon orbits Earth.

Mercury and Venus are the only planets in the solar system which don't have any moons at all (Saturn has 62 moons!).