



Planet Earth facts



The planet Earth is a **sphere**. It is about 4.5 billion years old.

Earth spins at 1000 miles per hour. It takes 24 hours to complete a full rotation.

It's daytime on the side of the Earth that faces the Sun and night time on the side that is facing away.

As the Earth rotates on its **axis**, shadows that are formed change in size and orientation

As it is night in some parts of the world while it is day in other parts, different places in the world have different times. This is why the world is divided into 24 different time zones. One for each hour in a day.

The Earth takes $365\frac{1}{4}$ days to travel around the Sun.

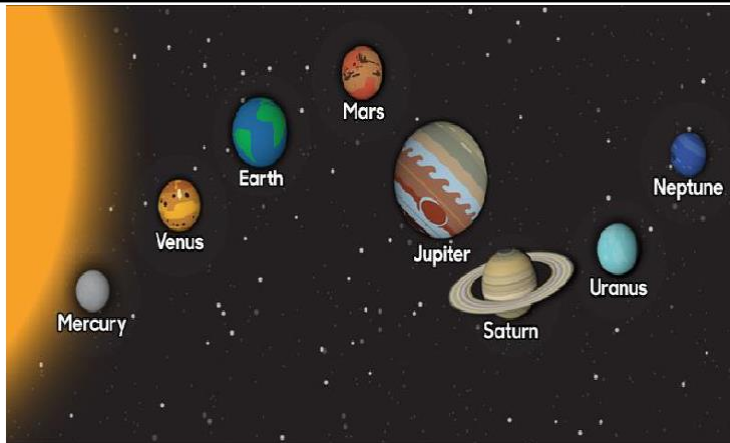
Planet Earth has one moon, which is held in **orbit** by gravity.

Earth is the third planet from the Sun. The Earth is the only planet in our solar system not to be named after a Greek or Roman deity

Tim Peake, British Astronaut

Major Tim Peake became the first British astronaut in space for over 20 years when he blasted off for the International Space Station on 15th December 2015.

When he applied to be an astronaut he was selected from 8000 applicants. As part of his training he has learnt Russian, spent 12 days under the sea and completed a winter survival mission.



Solar system facts

The Sun is a star.

The Earth is one of eight planets that travel around the Sun in our **solar system**

The planets are called **Mercury**, **Venus**, **Earth**, **Mars**, **Jupiter**, **Saturn**, **Uranus** and **Neptune**.

The solar system is also home to lots of asteroids, moons, and **dwarf planets** such as Pluto.

An easy way to remember the names of planets in order is:

My Very Easy Method Just Speeds Up Naming.



Major Peake lived aboard the International Space Station for 6 months conducting experiments in microgravity and maintaining links with schools and children on Earth.

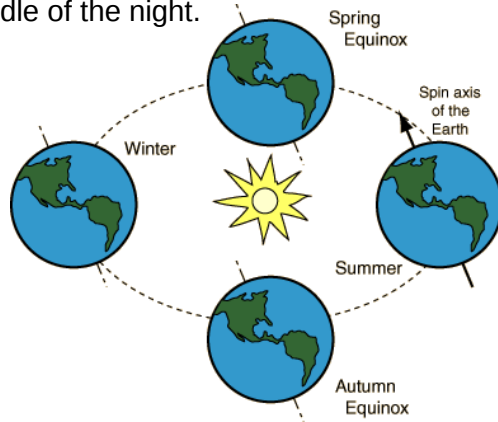
Key Vocab

Sphere	A three dimensional version of a circle, like a football or a marble
Solar System	The solar system consists of the sun and everything that orbits, or travels around, the sun
Orbit	The path taken by one body circling around another body The earth makes an orbit around the sun
Dwarf Planet	Planets similar to the solar system's eight planets but are smaller
Axis	an imaginary line through the middle of something
Time Zone	A time zone refers to any region where the same standard time is kept
Astronaut	a person who travels beyond the earth's atmosphere
astronomy	The study of astronomy involves all of the objects outside Earth's atmosphere

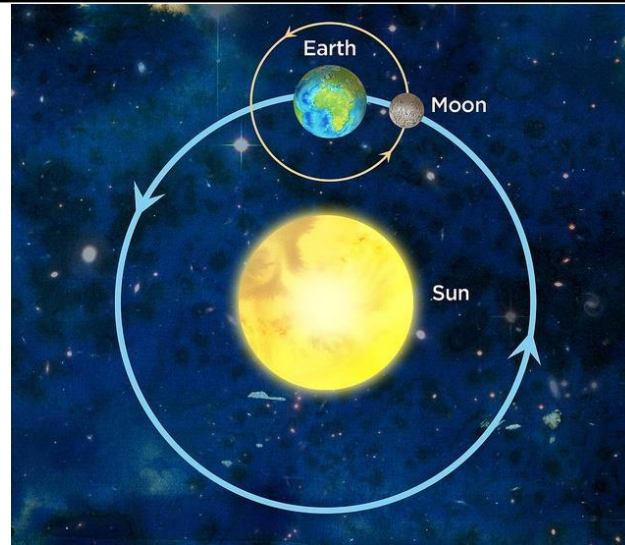
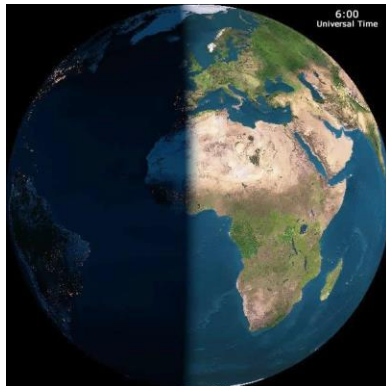


The Earth

The Earth rotates one complete turn every 24 hours to give us day and night. When Britain faces the Sun it is daytime in Britain but the other side of the world is in darkness. So, in Australia it is the middle of the night.



Earth rotates on an axis. During the winter, the North Pole is tilted away from the Sun's rays. As Earth travels around the Sun, the tilt of Earth changes. By June, the North Pole is tilted towards the Sun and the days become very long. Earth takes a year to orbit the Sun and it is the tilt which creates the seasons.



The Moon

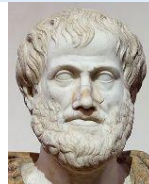
The Moon orbits the Earth anticlockwise and takes approximately 28 days.

The Moon spins once on its axis every time it orbits Earth. This means that we only see one side of the Moon.

The Moon has different phases depending on where it is in its orbit. The Moon's gravity causes high and low tides.

Famous Astronomers

Aristotle 384 BC
Greece



Aristotle was one of the most respected Greek thinkers. He was the star pupil of Plato, a famous Greek philosopher. The word for earth in Greek is geo and centron is centre so we call this idea a "geocentric" theory

Ptolemy 100 AD
Roman province of Egypt



Ptolemy was an astronomer and mathematician. He believed that the Earth was the centre of the Universe.

He, too, believed in a geocentric Universe. This flawed view of the Universe was accepted for many centuries.

Copernicus 1473 AD
Poland



Copernicus thought the sun was at the centre of the solar system.

The word for sun in Greek is helios and centron is centre so we call this idea a "heliocentric" theory. It was controversial, as accepted wisdom at the time (supported by the church) was that Earth was at the centre of the universe.