

Year 5 Earth and Space

Key Vocabulary	
Sun	A huge star that Earth and the other planets in our solar system orbit around. There are 8 planets which orbit the sun.
Star	A giant ball of gas held together by its own gravity.
Moon	A natural satellite which orbits Earth or other planets. Earth has one moon. Other planets such as Jupiter have more than one moon.
Planet	A large object, round or nearly round, that orbits a star.
Celestial Body	Is a natural object which is located outside of the Earth's atmosphere such as the Moon, Sun, a planet.
Sphere	A round 3D shape in the shape of a ball.
Satellite	Any object or body in space that orbits something else, for example the Moon is a satellite of Earth.
Orbit	To move in a regular, repeating curved path around another object.
Rotate	To spin. E.g. the Earth rotates on its own axis.
Axis	An imaginary line that a body rotates around. E.g. the Earth's axis (imaginary line) runs from the North Pole to the South Pole.
Geocentric model	A belief people used to have that other planets and the Sun orbited around Earth.
Heliocentric model	The structure of the Solar System where the planets orbit around the Sun.

Mercury, Venus, Earth and Mars are rocky planets. They are mostly made up of metal and rock. Jupiter, Saturn, Uranus and Neptune are mostly made up of gases (helium and hydrogen) although they do have cores made up of rock and metal.

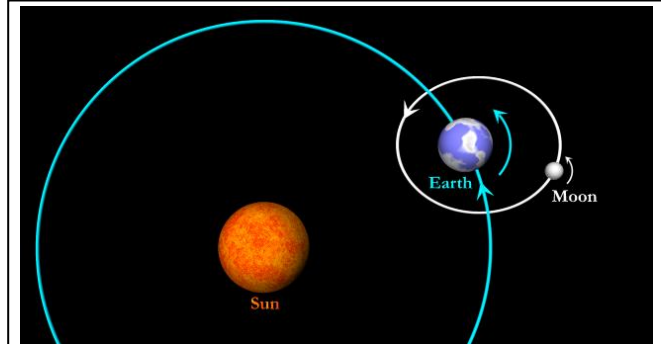
Our Solar System



Pluto used to be considered a planet but was reclassified as a dwarf planet in 2006.

Geocentric Model. Years ago people believed that planets moved around the Earth.

The work and ideas of many astronomers combined over many years before the idea of the heliocentric model was developed. Galileo's work on gravity allowed astronomers to understand how planets stayed in orbit.



The Moon orbits Earth in an oval shaped path while spinning on its axis. It takes 28 days for the moon to orbit Earth. At various times of the month, the Moon appears to be different shapes. This is because as the Moon rotates round the Earth, the sun lights up different parts of it.

Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time as the Earth is rotating, it is also orbiting around the Sun. It takes 365.25 days to orbit the Sun. This is why we have a leap year once every 4 years.

It appears to us that the Sun moves across the sky during the day but the Sun does not move at all. Daytime occurs when the side of Earth is facing towards the Sun. Night occurs when the side of the Earth is facing away from the Sun.

Phases of the Moon. The moon changes its shape with distinct phases depending on the Moon's position as it orbits the Earth and the Earth's position as it orbits around the sun. The moon reflects the sun's rays. The phases: 1st quarter, waxing crescent, new moon, waning crescent, half moon, waning gibbons, full moon, waxing gibbons

