



Knowledge Organiser: Earth and Space

The Solar System

The sun is a huge ball of burning gas that produces heat and light

The Sun is the centre of our Solar System

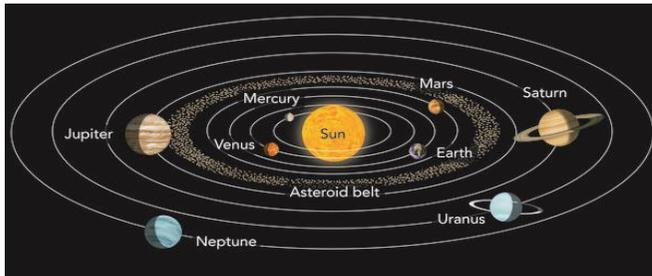
The planets in our Solar system all orbit the sun

The planets closest to the sun have a short orbit while the planets furthest from the sun have a much longer orbit

Earth takes 365.25 (365 1/4) days to orbit the sun (one Earth year)



Planets order from the sun: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.



Planets closest to the sun are generally much hotter than those further from the sun

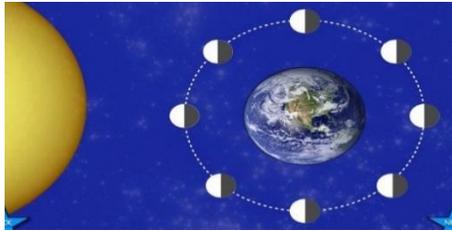
The Moon

The moon is a natural satellite that orbits the Earth

The moon is not a light source, instead it reflects light from the sun

The moon takes 27 days to orbit the Earth

What the moon looks like to us on Earth (the phases of the moon) changes throughout its orbit depending on which part is in shadow. The phases of the moon are: Full moon, Half moon, New Moon, Half Moon and back to Full Moon.



Day and Night

The Earth's axis is an imaginary line through the centre of the Earth from the North Pole to the South Pole

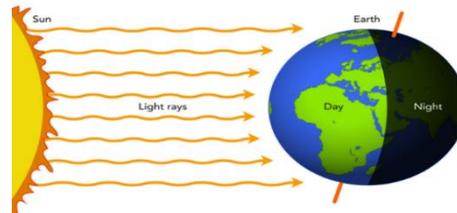
The Earth rotates (spins) on its own axis

The Earth completes one full rotation (spin) every 24 hours (one full day)

At any given time, half of the Earth is facing the sun. This is daytime. Half the Earth will be facing away from the sun. This is night.

The sun does not move. The Earth's rotation makes it appear as if the sun moves across the sky

The sun rises in the East and sets in the West because the Earth rotates anticlockwise.



Planet	A large, round object in space that moves around a star. The Earth is a planet.
Moon	An object similar to a small planet that travels around a planet. <i>The moon</i> refers to the moon orbiting Earth.
Star	A large ball of burning gas in space which appear to us as small points of light in the sky on clear nights. The sun is a star.
Solar System	The sun and all the planets that orbit it. There are more than 2500 other solar systems in our galaxy.
Galaxy	A large group of stars, gas, and dust bound together by gravity. There are billions of galaxies in the universe.
The Milky Way	Our solar system is part of this galaxy. All the stars we see in the night sky are in our own Milky Way Galaxy.
Universe	The whole of space and all the stars, planets
To orbit (verb)	When something moves around a planet or sun in a continuous, curving path.
Orbit (noun)	The curved path in space that is followed by an object going round a planet, moon, or star.
Gravity	The force of attraction that attracts objects towards the centre of a celestial body, such as the earth or moon
Spherical	Something that is round like a ball.
The Sun	the ball of fire in the sky that the Earth goes around, and that gives us heat and light.
A sun	A sun is any star which has planets going around it
Satellite	An object in space that moves round a planet or star.
Heliocentric	The planets orbit the sun

