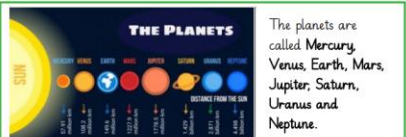


Key Knowledge

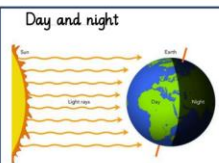


The planets are called Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

An easy way to remember the names of planets in order is:
My Very Easy Method Just Speeds Up Naming

The Moon orbits the Earth anti-clockwise 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.

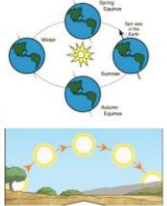
The Moon has different phases depending on where it is in its orbit. At different times, the moon appears to be different shapes because the sun light up different parts of the moon as it moves around the Earth. The Moon's gravity causes high and low tides.



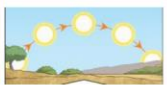
Day and night

The Earth rotates one complete turn every 24 hours to give us day and night. Daytime occurs when the side of the Earth is facing the sun and night occurs when the side of the Earth is facing away from the sun. 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.



It appears to us that the Sun moves across the sky during the day but the Sun does not move at all. It seems to us that the Sun moves because of the movement of the Earth.



Moons and Satellites

Satellites are natural or artificial objects that orbit round other objects such as planets and stars.

Artificial satellites are made by humans for a variety of reasons, such as for observation or navigation.



A natural satellite is a celestial body that orbits round a larger object such as a planet or star. Moons are natural satellites that orbit many of the planets of the Solar System. The moon that orbits Earth is called the Moon.

The Moon

The Moon is Earth's natural satellite. It is made of rock and metal, is approximately spherical and is a quarter of the diameter of Earth.



The Moon orbits round Earth once approximately every 27 days. It takes the same amount of time to rotate on its axis. This means we always see the same side of the Moon.

The Moon appears to change shape over the course of its 27-day orbit as different parts of it are lit or in shadow.

Day and Night

Every 24 hours, Earth rotates on its axis, which is an imaginary line that passes through its centre. This rotation causes the Sun to appear to move across the sky and is what causes the cycle of day and night, as one side faces the Sun and the other side faces away from the Sun.

The side facing the Sun will be experiencing daytime, as it is lit and heated by sunlight.

The side facing away from the Sun will be experiencing nighttime, as it is in shadow.



Key Skills

- I can explain why we know the Sun, Earth and Moon are spherical.
- I can name and describe features of the planets in our solar system.
- I can order the planets in our solar system.
- I can explain how planets move in our solar system.
- I can explain day and night and the apparent movement of the sun across the sky.
- I can explain the movement of the Moon.

Key Vocabulary

- Planet:** An object that orbits a star and does not emit its own light.
- Star:** A giant ball of gas held together by its own gravity and makes heat and light energy.
- Gravity:** The force that attracts an object towards a larger object.
- Orbit:** A curved path of a planet taken by one body circling around another body. The earth makes an orbit around the sun.
- Solar system:** The solar system consists of the Sun and everything that orbits, or travels around, the Sun.
- Astronomy:** Astronomy is the study of outer space and all of the objects and bodies outside of the Earth's atmosphere, like stars, planets and comets.
- Time zone:** Time zones give specific areas on the Earth a time of day that is earlier or later than the neighbouring time zones. The time zone is dependent on the Earth's rotation.
- Sphere:** A round 3D shape in the shape of a ball.
- Sun:** A huge star that the Earth and other planets in our solar system orbit around.
- Moon:** A natural satellite which orbits Earth or other planets.
- Geocentric model:** A belief people used to have that other planets and the Sun orbited around the Earth.
- Heliocentric model:** The structure of the solar system where the planet orbits around the sun.
- Satellite:** A satellite is a natural or human-made object or body that orbits a larger object such as a planet or a star.