



Endpoints for Science

Year 5 – Our Place in Space



In this topic, we will learn the names of the planets, model their orbits, and investigate Earth and the Moon. We'll discover how evidence proves that the Earth is spherical and explore the phases of the Moon. We'll also find out how Earth's rotation causes day and night, makes the Sun appear to rise in the east, move across the sky and set in the west, and then use equipment to model these ideas

What I know and can explain

The Solar System is made up of the Sun and everything that orbits around it

The Sun's force of gravity, created by its huge mass, keeps the planets in orbit

The eight planets in our Solar System are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune

The Earth and the Moon orbit the Sun once every 365.25 days. This is one year

The Earth completes one rotation on its axis in 24 hours, one day

The Moon orbits the Earth once every 27.3 days and also rotates on its axis once every 27.3 days

The Moon is Earth's only natural satellite. It orbits the Earth in an anticlockwise direction when viewed from the North Pole

Half of the Moon's surface always reflects the Sun's light

We can see different amounts of the lit surface of the Moon at different times of the month

As Earth rotates, different parts of it face the Sun, which brings what we call daytime. The part facing away is in shadow, which is night time

During the day, the Sun appears to move through the sky. The Sun is not moving; the Earth is rotating

Useful Vocabulary

Axis - An imaginary line that runs through the centre of an object, such as a planet, about which it rotates

Earth - The planet in our Solar System upon which we live that has the optimum conditions to support life, such as the right amount of water, oxygen and warmth

Geocentric model – a disproven idea that the Earth was at the centre of the Solar System

Gravitational force - A non-contact pulling force between objects that have mass

Heliocentric model - The proven theory that the Sun is at the centre of the Solar System and the eight planets orbit around it

Orbit - The stable, circular path of an object revolving around a central mass with gravitational force, such as the planets revolving around the Sun

Satellite - A natural or artificial object orbiting a larger natural object in space, such as the Moon or a spacecraft orbiting the Earth