

Nova Primary Knowledge Organiser

Line of enquiry: What makes planet Earth unique?

Year 5 Term 5 and 6

Big idea: Exploration and mystery

Key subject areas: science, art, history

What should I already know?

There are eight planets that orbit around the Sun. In order, going from the closest planet to the Sun, to the one that is farthest away, they are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All of the planets and the Sun are round, like balls. There are 24 hours in a day.

Key Vocabulary

Asteroid - A small rocky body orbiting the sun

Axis - An imaginary line about which a body rotates

Celestial - Positioned in or relating to the sky, or outer space as observed in the astronomy

Day - A twenty-four hour period, from one midnight to the next, corresponding to a rotation of the earth on its axis

Dwarf planet - A celestial body resembling a small planet but lacking certain technical criteria to be classed as a planet e.g. Pluto

Geocentric - Where people believed the earth was at the centre of the solar system

Heliocentric - Representing the sun as the centre of the solar system, the modern view of the solar system

Moon - A natural satellite of any planet

Night - The period from sunset to sunrise in each twenty-four hours

Orbit - The regularly repeated oval course of a celestial object around a star or planet

What will I know by the end of this line of enquiry?

- be able to describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- be able to describe the movement of the Moon relative to the Earth.
- be able to describe the Sun, Earth and Moon as approximately spherical bodies.
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
- explain that unsupported objects fall towards earth because of gravity acting between the earth and the falling object.

Key Knowledge:

The Moon orbits Earth in an oval-shaped path while spinning on its axis. At various times in a month, the Moon appears to be different shapes. This is because as the Moon rotates round Earth, the Sun lights up different parts of it.

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 movements of Earth.

Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the Sun. Daytime occurs when the side of Earth is facing towards the Sun. Night occurs when the side of Earth is facing away from the sun.

Diagram

Our Solar System (not to scale)

