



Science Knowledge Organiser for Year 4: Earth and Space

Key Question: *How do the movements of the Earth, Moon and Sun help us explain what we see in the sky?*

Tier 3 Vocabulary

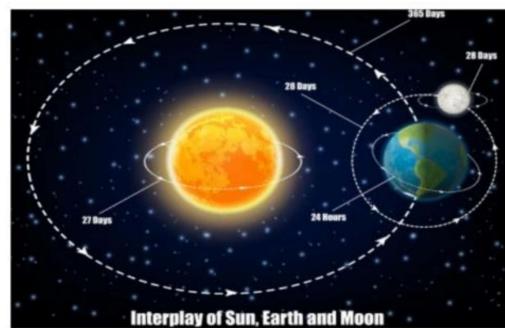
Spherical body	A round object like a ball, such as a planet or moon.
Planet	A large, round object that orbits a star, like Earth or Mars.
Solar system	The Sun and all the objects that move around it, including planets.
Star	A huge ball of hot gases that gives off light and heat, like the Sun.
Orbit	The path one object takes as it moves around another in space.
Rotation	When a planet spins around on its axis.
Revolution	When a planet travels all the way around the Sun.
Axis	An invisible line through the centre of a planet that it spins around.
Gravity	A force that pulls objects towards each other.
Satellite	A natural satellite is a moon.
Lunar Cycle	The Moon's shape appearing to change in a pattern over about 29 days.
Heliocentric theory-	All planets move around the sun.

Order of planets from the sun

Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune



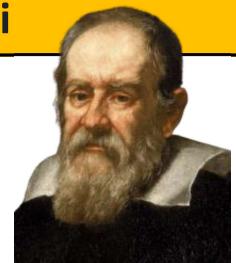
Earth's rotation



Lunar Cycle



Galileo Galilei



Astronomer and Physicist

1564 – 1642

In 1610, Galileo used a telescope to study the night sky and discovered moons orbiting Jupiter. His support for the idea that the Earth orbits the Sun challenged old beliefs and changed science forever.

Related prior knowledge:

Year 1/2 – the four seasons
Year 3 – forces and magnetism

Related future learning:

KS3 - how gravity affects weight and orbits; that the Sun is one of many stars in our galaxy; how the Earth's tilt causes seasons and day length changes