

Key learning

Our knowledge about Earth and space has varied greatly throughout history and has been a controversial topic. Previously, geocentric theories stated that the Earth was at the centre of the solar system, however thinkers later realised this was not the case and heliocentric theories (that the planets orbit around the central sun) were proved and accepted.

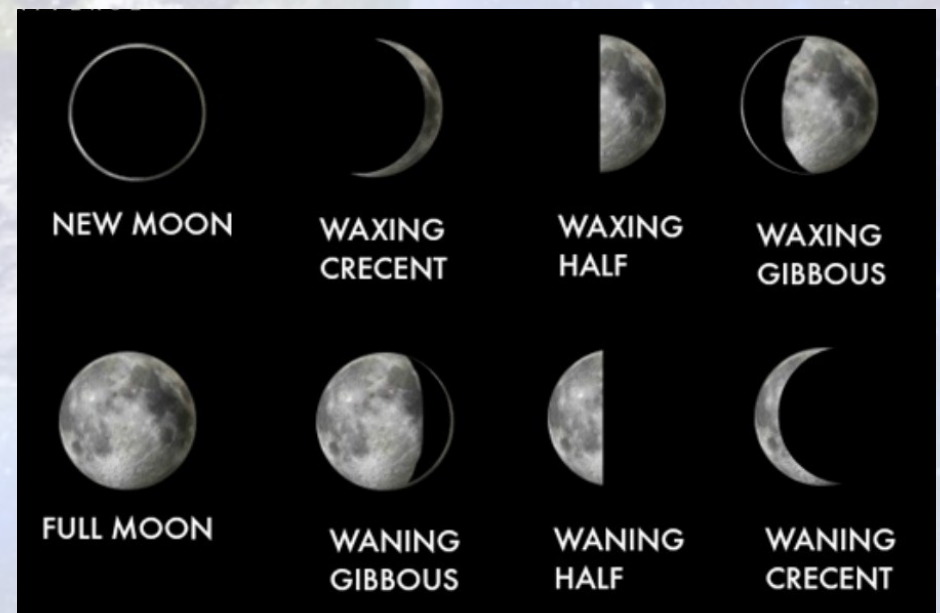
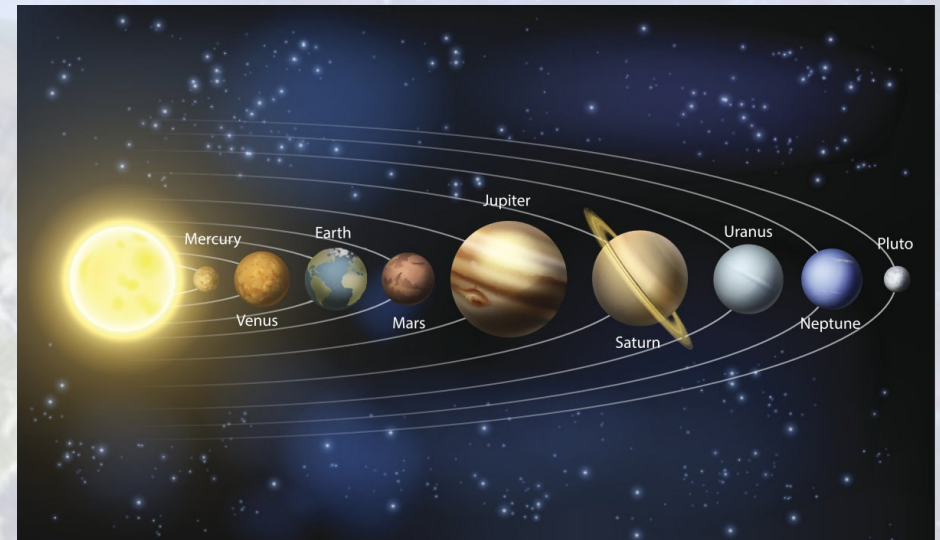
Our solar system has eight planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Neptune, Uranus. The Earth, the moon and the sun are spherical bodies.

The Earth and the planets orbit around the sun and each full orbit is called a Year. A year varies on each planet. It takes Earth 365 and 1/4 days—the 1/4 days are grouped and form a leap year every four years.

The Earth's axis is tilted at an angle of 23.5 degrees. The tilt of the Earth means that the planet will tilt towards the Sun (Summer) or lean away from the Sun (winter). In between these, Spring and Autumn will occur. This also explains why seasons are different for different countries

Not only does the Earth orbit but it also rotates on an axis which causes day and night and the sun to appear to move across the sky. One full rotation takes 24 hours.

The Moon is a natural satellite and orbits the Earth. One full orbit takes 28 days. The moon reflects the sun and, depending on its position in relation to us and the sun, causes us to see varying shapes (i.e. a crescent or half moon)



Prior Learning to Reactive

This is the first time this subject is discretely taught within the Primary Curriculum.

- Observe changes across the four seasons (Year 1)
- Observe and describe weather associated with the seasons and how day length varies (Year 1)

Scientific Skills

Comparing the time of day at different places on the Earth through internet links and direct communication

Identify how scientific evidence over the years has been used to refute and support our understanding of the solar system

Finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks

Constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day

Creating simple models of the solar system

Key vocabulary

Axis	An imaginary line about which a body rotates
Celestial	Positioned in or relating to the sky, or outer space as observed in astronomy
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
Orbit	The regularly repeated oval course of a celestial object around a star or planet
Planet	A celestial body moving in orbit around a star
Solar System	The collection of eight planets and their moons in orbit round the sun
Star	A fixed luminous point in the night sky which is a large, remote body like the sun
Sun	The star around which planets orbit