



Scientific Vocabulary

Solar System: The sun and everything that orbits it. This includes the eight planets and their moons, dwarf planets, asteroids, comets, other small objects and all the empty space in between them.

Orbit: A repeating path that one object in space takes around another. All orbits are elliptical in shape, meaning they're egg-shaped, or oval, rather than circular.

Rotate: When something turns or spins around a point located in its centre.

Axis: An imaginary line an object turns around. This imaginary line runs directly through the object's centre, from the north to the south poles.

Sphere: A 3 dimensional object shaped like a ball.

Waxing: The process of increasing how much of the moon is lit (as observed night to night) i.e. it's headed towards being a full moon.

Waning: The process of decreasing how much of the moon is lit (as observed night to night) i.e. it's headed towards being a new moon.

Satellite: A smaller object that orbits, or revolves around, a larger object in space. Satellites can be natural or artificial (made by people).

Sundial: An instrument showing the time by the shadow of a pointer cast by the sun onto a plate marked with the hours of the day.

Celestial body: A naturally occurring object that exists in the observable universe.

Geocentric model: A model of the universe with the Earth at the centre and all other celestial bodies orbiting it.

Heliocentric model: A model of the solar system with the Sun at the centre and all other celestial bodies orbiting it.

Wider Curriculum Links

Year 2: Explorers – moon landing

Year 3: Light reflection



Key Scientific Knowledge

The Earth rotates on its axis once every 24 hours, giving night and day.

The Earth orbits the sun once every 365 $\frac{1}{4}$ days (year).

The Moon orbits the Earth approximately once every 28 days.

We can see the moon because the sun's light reflects off it.

The Earth is a spherical object and this can be evidenced in a variety of ways including observing ships on the horizon.

The Earth's rotation is what causes the sun to appear to move across the sky.

Our solar system consists of eight planets; (in order) Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

Shadows on Earth can be used to evidence the movement of the Earth in space and allow us to tell the time.

The number of daylight hours varies across the seasons on Earth due to the axis of the Earth.

Working Scientifically

I can evaluate the validity of scientific hypothesis and evidence regarding the shape of the Earth.

I can explain and demonstrate the apparent movement of the sun across the sky.

I can explain and demonstrate how night and day are created.

I can explain and demonstrate how the seasons are created.

