



Earth and Space

What should I already know?

- Explore the natural world around them. (EYFS)
- Describe what they see, hear and feel whilst outside. (EYFS)
- Observe changes across the four seasons. (Y1)
- Observe and describe weather associated with the seasons and how day length varies. (Y1)

Key vocabulary I need to know

Solar System	the collection of eight planets and their moons in orbit round the sun, together with smaller bodies in the form of asteroids, meteoroids, and comets.
planet	a celestial body moving in an orbit round a star.
celestial	positioned in or relating to the sky, or outer space as observed in astronomy.
rotation	the action of turning on an axis or centre.
revolution	a single orbit of one object around another. E.g. the Earth revolves around the sun.
axis	an imaginary line about which the Earth rotates.
orbit	a curved path of a celestial object around a star, planet or moon.
waxing	In Moon phase terms, waxing means what we can see of the moon is getting bigger.
waning	In Moon phase terms, waning means what we can see of the moon is getting smaller.
gibbous	refers to the shape, which is less than the full circle of a Full Moon, but larger than the semicircle shape of the Moon
crescent	The moon is considered a crescent only when less than one half of it is visible
spherical	Something shaped like a ball.
star	Glowing balls of gases that make their own light and heat.

Key facts

- Astronomers such as **Nicolaus Copernicus**, **Galileo Galilei**, **Johannes Kepler** and **Isaac Newton** helped develop a new model that explained the movement of the planets with the Sun at the centre of the Solar System (heliocentric model).
- As of 2008, there are also five dwarf planets: **Pluto**, **Ceres**, **Eris**, **Makemake** and **Haumea**.

What I will know by the end of the term

- The Sun is a star. It is at the centre of our solar system.
- The Earth, and other planets in the solar system, rotate and revolve around the Sun. The speed at which they do so varies according to their distance away from the Sun.
- There are eight planets in the Solar System. The four inner planets are **Mercury**, **Venus**, **Earth** and **Mars** while the four outer planets are **Jupiter**, **Saturn**, **Uranus** and **Neptune**.



- The Moon rotates and revolves around the Earth every 27.3 days.
- The Earth rotates and revolves around the Sun every 365 $\frac{1}{4}$ days. The $\frac{1}{4}$ day means we have a leap year every four years.
- The Earth rotates on its axis and a full rotation takes 24 hours, giving us our days. The rotation of the Earth is why it is day for half of that time and night for the other half, depending on which side of the Earth is facing the Sun.
- The Sun does not move – the Earth does.
- The Moon has different 'phases' according to where it is positioned in relation to the Earth, and where the Earth is positioned in relation to the Sun. The moon reflects the sunlight, which is why we can see it.

