Earth and Space

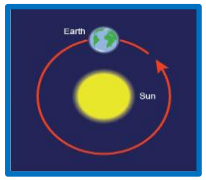
We will learn…

The Earth rotates on its axis anti-clockwise and makes a complete rotation over 24 hours (a day). The Earth's rotation causes day and night. Different parts of the Earth experience daylight at different times. This means that it is morning, afternoon and night in different places. As the Earth rotates, shadows that are formed change in size and orientation.

The Earth takes 365 and a quarter days to orbit the Sun. Because of the extra quarter day it takes to orbit the Sun, every four years on Earth is a leap year! It is the Earth's tilt that causes the seasons.

The Moon orbits the Earth anticlockwise and takes approximately 28 days. The Moon spins once on its axis every time it orbits Earth. This means that we only see one side of the Moon. The Moon has different phases depending on where it is in its orbit. The Moon's gravity causes high and low tides.

Key vocabulary:

galaxy	An extremely large group of stars and planets. Our galaxy is called the Milky Way.
axis	An imaginary line through which something rotates.
gravity	The force which causes things to drop to the ground.
orbit 	The curved path in space that is followed by an object going round and round a planet, moon, or star.
universe	The whole of space and all the stars, planets, and other forms of matter and energy in it.
sphere	An object that is round in shape like a ball.

There are 8 planets in our Solar System (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune). Pluto is a dwarf planet. They all orbit the Sun, which is a star, and they all have moons. The first four planets are relatively small and rocky, while the four outer planets are gas giants (Jupiter and Saturn) or ice giants (Uranus and Neptune). There are also asteroids, meteoroids and comets in the Solar System. The Solar System is in a galaxy called the Milky Way. The galaxy is in the universe.

Investigate:

- Explore how the planets move in our solar system
- Compare the time of day at different places on Earth.

Inspirational Scientist

Emma England- Aerospace engineer

Maggie Aderin-Pocock- Astronomer and science communicator

Working scientifically

In this topic we develop the following practical skills:

- ✓ presenting findings from enquiries, including explanations
- ✓ identifying scientific evidence that has been used to support or refute ideas