Science

Year Five – Spring 1 – The Truth Is Out There

Earth and Space

This unit explores the movement of the planets and the Earth in relation to the Sun and the movement of the Moon in relation to the Earth. We will discover how day and night occurs and understand that the Sun, Earth and Moon are rough spherical bodies.

Key Questions

- How do we get day and night?
- Why does it appear that the sun moves across the sky?
- How long does it take for the Earth to rotate?
- How long does it take for the Earth to orbit the sun?
- Why do we see different phases of the moon?
- How do we know that the Earth is spherical?

Nicolaus Copernicus *(1473-1543)* 	Nicolaus was a Polish astronomer and mathematician who formulated the heliocentric model of the solar system that placed the Sun rather than the Earth at the centre of the universe.
Maggie Aderin-Pocock *(born 1968)* 	Maggie is a British space scientist and science educator. She is working on the observation instruments for the Aeolus satellite, which will measure wind speeds to help the investigation of climate change.

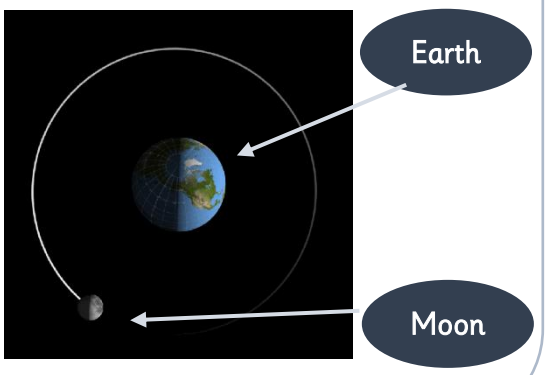
The Sun is a star at the centre of our solar system.

There are 8 planets in our solar system: **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.**
(Pluto was reclassified as a 'dwarf planet' in 2006).

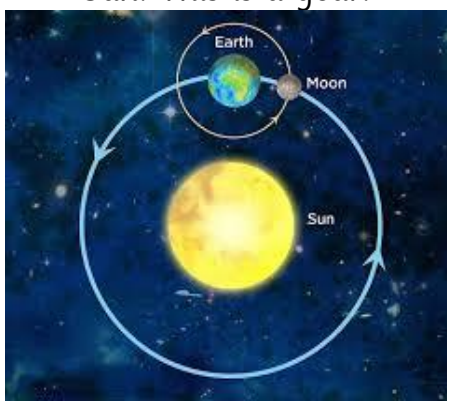
These all **orbit** (travel) around the sun.

Key vocabulary	
Earth	The planet we live on. It is the third planet from the Sun.
Sun	The Sun is the star at the centre of our solar system. **It is not safe to look directly at the Sun, even when wearing dark glasses.**
Moon	The moon is the only natural satellite of the Earth.
planets	Large round objects, made of rock or gas, that move around the sun.
solar system	The sun and all the planets that orbit around it.
star	A huge ball of glowing gas in space.
rotate	When an object rotates it turns (spins) on its axis.
orbit	The curved path that an object follows going around a star or a planet.

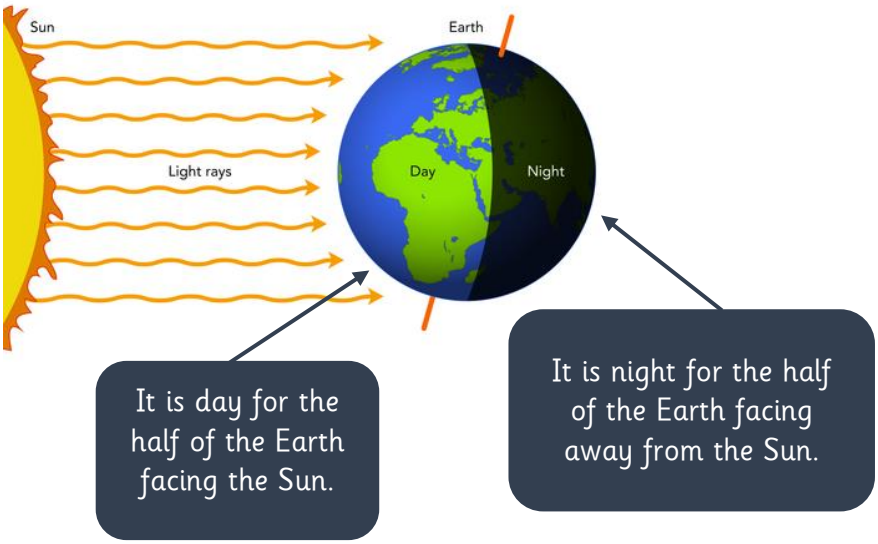
The moon orbits the Earth.
It takes about 28 days to complete its orbit.



The Earth orbits the Sun.
It takes 365¼ days to complete its orbit around the Sun. This is a year.



The Earth rotates (spins) on its axis once every 24 hours.



Home Learning Suggestions

1. Create your own representation of the solar system. You could represent the plants with balloons, beads, food – anything! See if you can make a model 'to scale'.
2. Create a picture to represent space.
3. Research something you are interested in. Black holes, aliens or the great space race for example.
4. Design your own planet. What do you need to survive on it?