Earth and Space — Class 3 and 4

Key Vocabulary

Sun	A huge star that Earth and the other planets in our solar system orbit around.	**Star**	A giant ball of gas held together by its own gravity.	**Moon**	A natural satellite which orbits Earth or other planets.
Planet	A large object, round or nearly round, that orbits a star.	**Sphere**	A round 3D shape in the shape of a ball.	**Spherical bodies**	Astronomical objects shapes like spheres.
Satellite	Any object or body in space that orbits something else.	**Orbit**	To move in a regular, repeating curved path around another object.	**Rotate**	To spin e.g. Earth rotates on its own axis.
Axis	An imaginary line that a body rotates around.	**Geocentric model**	A belief people used to have that the other planets and the sun orbited Earth.	**Heliocentric model**	The structure of the solar system where the planets orbit around the sun.
Astronomer	Someone who studies or is an expert in astronomy (space science)	*The work and ideas of many astronomers (such as Copernicus and Kepler) combined over many years before the idea of the heliocentric model was developed. Galileo's work on gravity allowed astronomers to understand how planets stayed in orbit.*			

Key Knowledge

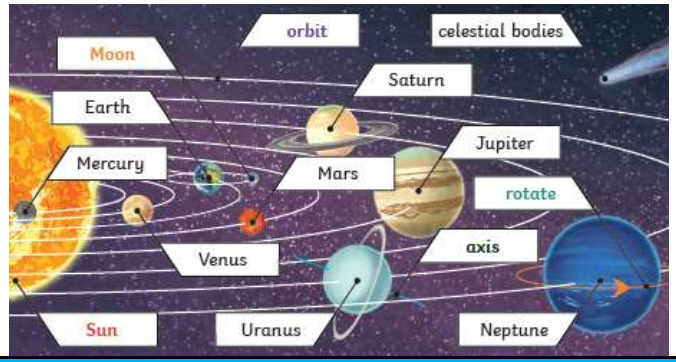
Mercury, Venus, Earth and Mars are rocky planets. They are mostly made up of metal and rock.

Jupiter, Saturn, Uranus and Neptune are mostly made up of gases (helium and hydrogen) although the do have cores made up of rock and metal.

Pluto used to be considered a planet but was reclassified as a dwarf planet in 2006.

Key Knowledge

Our Solar System



Why does the moon change?	The moon orbits the Earth in an oval-shaped path while spinning on its axis. At various times of the month, the moon appears to be different shapes. This is because as the moon rotates round the Earth, the Sun lights up different parts of it.
Does the sun move?	It appears to use that the Sun moves across the sky during the day but the Sun does not move at all. It seems to us that the Sun moves because of the movements of the Earth. Earth rotates (spins) on its axis. It does a full rotation once every 24 hours. At the same time that the Earth is rotating, it is also orbiting around the sun. It takes a little more than 365 days for the Earth to orbit the Sun. Day occurs when the side of the Earth is facing the Sun and night occurs when the side of the Earth is facing away from the Sun.

Prior Learning

Children will have learnt about magnetism
Children will learn about forces in action e.g.

- Air resistance
- Gravity
- Friction
- Buoyancy

Next Steps

At KS3, the children will learn about:

- Energy
- Forces and movement
- Solids, Liquids and Gases
- Space
- Forces and magnetism