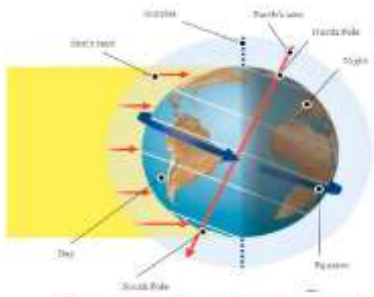
The Tithe Farm Way:
Resilient pupils who have a life-long love of learning and are ready, respectful and safe in their choices.

Science -
Year 5: Earth and Space

What should I already know?	
Explain that unsupported objects fall towards the Earth because of the forces of gravity acting between the Earth and the falling object.	
Key Vocabulary	
Asteroid	A rock that orbits the sun in a belt between mars and Jupiter
Axis	An imaginary line that passes through the middle of something (i.e. a planet)
Comet	AA bright object with a long tail that travels around the sun.
Earth	A planet that orbits around the sun in 365 days
Galaxy	An extremely large group of stars and planets. Our galaxy is called the **Milky Way**
Meteorite	A rock from outer space that has landed on Earth
Moon	A celestial body that orbits around a planet
Orbit	The curved path in space that is followed by an object round a planet, moon or star
Planet	A celestial body which moves in orbit around the sun. It is massive enough to have its own gravity.
Shadow	A dark shape on a surface that is made when something blocks the light
Solar System	The solar system is made up of the sun and everything that orbits around it, including planets, moons, asteroids, comets and Meteoroids.
Sphere	A round solid object like a ball
Spin	Turn quickly on a central point
Star	A large ball of burning gas in space with a fixed point
Sun	A large star and the centre of our solar system.
Geocentric	A belief people used to have that the other planets orbited around the Earth
Heliocentric	The structure of the solar system where the planets orbit around the Sun

Diagrams











Geocentric Heliocentric

What will I know by the end of the unit?

How do the planets and moon move?
The planets in our solar system, including Earth, orbit around the Sun in elliptical (oval-shaped) paths. This motion is governed by gravity, which pulls the planets toward the Sun. Each planet follows its own orbital path, and the time it takes for a planet to complete one orbit is known as its orbital period. The closer a planet is to the Sun, the faster it travels in its orbit.

What does the rotation of the Earth casue?
Earth's rotation causes the cycle of day and night. As the Earth rotates, different parts of the planet are exposed to sunlight, creating daytime in one region and night time in another. This rotation is responsible for the regular 24-hour cycle we experience.

What does it look like the moon changes shape?
The Moon doesn't emit (give off) light itself, the 'moonlight' we see is actually the Sun's light reflected off the lunar surface. So, as the Moon orbits the Earth, the Sun lights up different parts of it, making it seem as if the Moon is changing shape. In actual fact, it's just our view of it that's altering.

What the difference between geocentric and heliocentric is?
The geocentric model says that the earth is at the centre of the cosmos or universe, and the planets, the sun and the moon, and the stars circles around it. The early heliocentric models consider the sun as the centre, and the planets revolve around the sun.

Related previous knowledge: Gravitation Pull

Related future learning: Physics (Space)