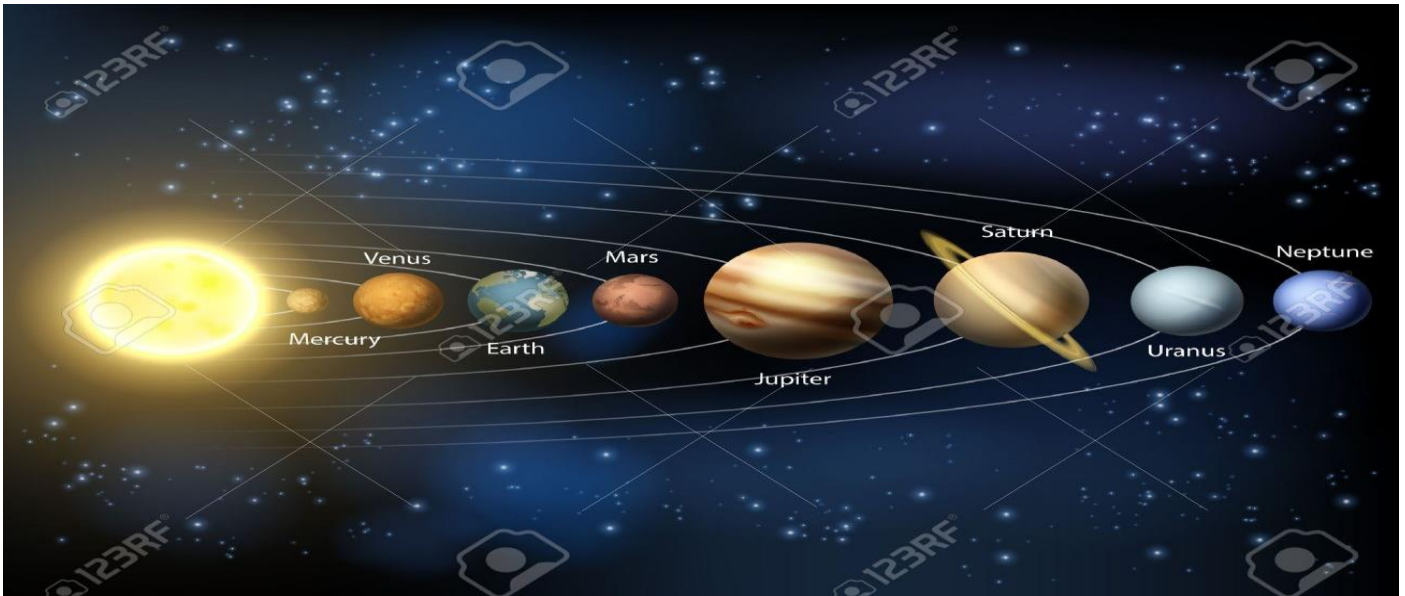


Year 5 Solar System Knowledge Organiser. Layer 3

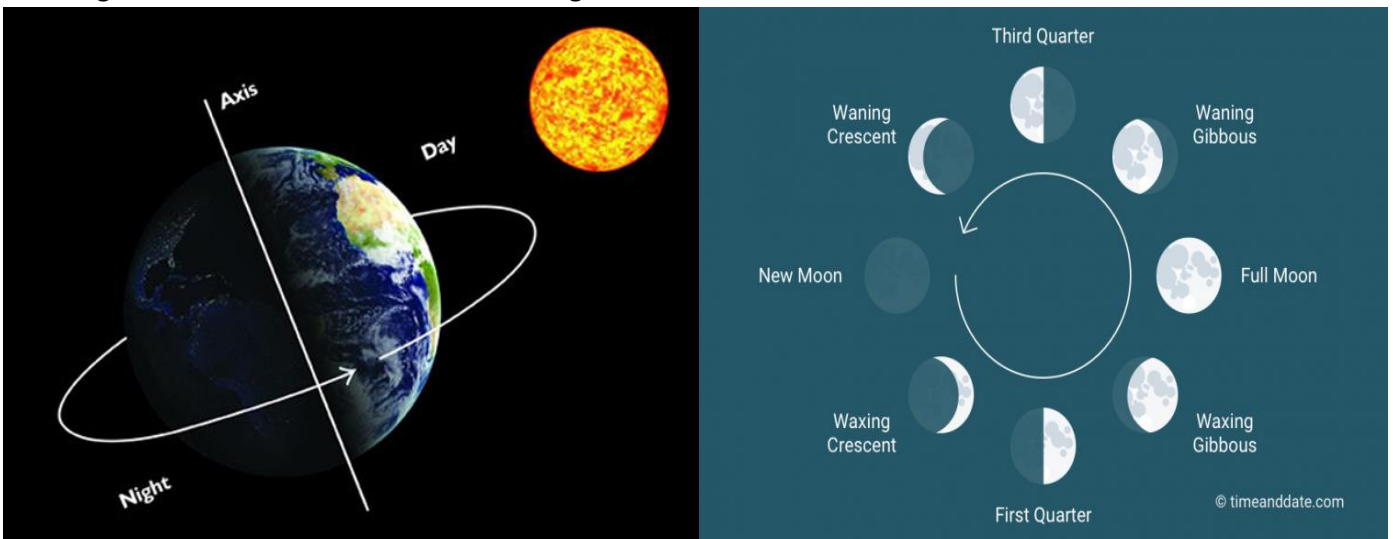
In space, planet Earth - the planet inhabited by humans - alongside other planets, stars, moons, asteroids and other objects form our Solar System. Inside the Solar System, Earth and seven other planets (including the dwarf planet Pluto) orbit (travel round) the Sun due to its gravitational pull. The Sun is the biggest star in our Solar System. As Earth orbits the Sun, the Moon also orbits our planet. Nowadays, we know that the Earth, Sun and Moon are approximately **spherical** bodies however many years ago some people believed that the Earth was flat.

An easy way to remember them is: **My Very Easy Method Just Speeds Up Naming Planets.**



Earth's orbit around the Sun It takes 365.25 days to complete its orbit around the Sun, therefore every four years we have an extra day in February. When this occurs, we call it a leap year.

Day and Night Why do we have day and night? As the Earth orbits the Sun, it rotates meaning half of the Earth is facing the Sun whilst the other half is facing away. The part of the Earth facing the Sun will experience day and the part facing away will experience night. It takes 24 hours for the Earth to rotate on its axis. The Sun does not move, but it is the Earth's movement that makes the Sun appear to rise in the morning from the east and set in the evening in the west.



The Phases of the Moon The Moon takes 28 days to orbit the Earth. We call this the lunar month. The Moon is not a light source and simply reflects the light from the Sun. The Moon also does not change shape,

instead we see different amounts of the Moon's surface depending on its position in relation to the Earth and the Sun. These changes in the amount we can see are called the phases of the Moon. During each lunar month, the Moon starts off unilluminated (New Moon). As more of the Moon becomes illuminated (lit up), it becomes a Full Moon and then back to unilluminated again. This process is continuous.

Vocabulary

Tier three

Solar system – The collection of eight planets and their moons in orbit round the sun.

Star – A fixed luminous point in the night sky which is a large, remote body like the sun.

Light source- Light is a type of energy that helps us to see the world around us. A light source emits light.

Reflection- When light from an object is reflected by a surface, it changes direction.

Tier Two

Orbit – The regularly repeated oval course of a celestial object around a star or planet.

Planet – A celestial body moving in orbit round a star.

Rotation – The action of rotating about an axis or centre.

Asteroid – A small rocky body orbiting the sun.

Axis – An imaginary line about which a body rotates.

Tier One

Day – A twenty-four hour period, from one midnight to the next, corresponding to a rotation of the earth on its axis.

Moon – A natural satellite of any planet.

Night – The period from sunset to sunrise in each twenty-four hours.

Sun – The star round which planets orbit.

Movement- To move and change position.

