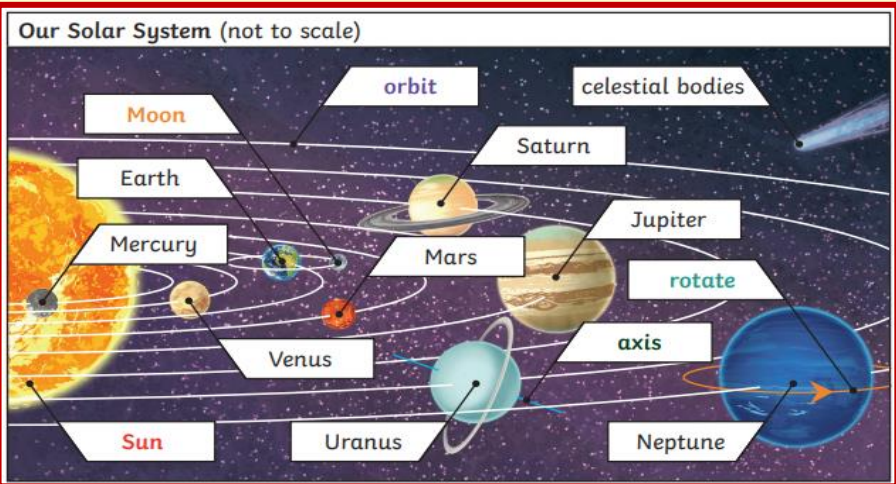




Year 5 Science Knowledge Organiser Spring Term 2023

This term, in Science, we will learn about Earth and Space. We will discover that the Sun is a star at the centre of our Solar System and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. We will gain an understanding of the movement of spherical bodies movements in the Solar System and also the moon's movement which will enable us to explain how we have day and night.



Key Vocabulary

Sun star moon
 planet sphere
 orbit rotate axis
 astronomer satellite
 spherical bodies
 geocentric model
 heliocentric model

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 of gases (helium and hydrogen)** although they do have cores made up of rock and metal.

The **Moon orbits Earth** in an oval shaped path while **spinning on its axis**. At various times in a month, the **Moon appears to be different shapes**. This is because as the **Moon rotates round Earth, the Sun lights up different parts** of it.

Key Knowledge

It appears to us 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 Earth.

Earth **rotates** (spins) on its axis. It does a full **rotation** once in every 24 hours. At the same time that Earth is **rotating**, it is also **orbiting** (revolving) around the **Sun**. It takes a little more than 365 days to **orbit** the **Sun**. Daytime occurs when the side of Earth is facing towards the **Sun**. Night occurs when the side of Earth is facing away from the **Sun**.

Geocentric model
 Years ago people believed that **planets** moved around the Earth.

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**.

Nicolaus Copernicus

