Carr Head Primary School – Knowledge Organiser

Science	Earth & Space	Year 5	Spring 1

Key Knowledge

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.

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**.

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

The Moon takes **28 days** to orbit the Earth. We call this the **lunar month**

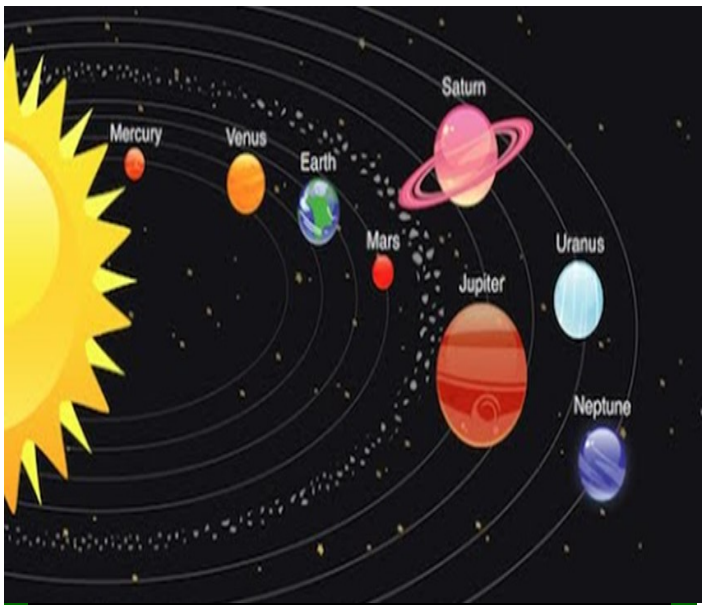
During each lunar month, the Moon starts off unilluminated (**New Moon**). As more of the Moon becomes illuminated (lit up), it becomes a **Full Moon** and then back to unilluminated again. This process is continuous.

Waxing occurs after New Moon and before a Full Moon as more of the Moon illuminates

Waning occurs after a Full Moon and before a New Moon as less of the Moon is illuminated.

Key Vocabulary

Asteroid	A small rocky body orbiting the sun
Axis	An imaginary line about which a body rotates
Celestial	Positioned in or relating to the sky, or outer space as observed in the astronomy
Day	A twenty-four hour period, from one midnight to the next, corresponding to a rotation of the earth on its axis
Dwarf planet	A celestial body resembling a small planet but lacking certain technical criteria to be classed as a planet e.g. Pluto
Geocentric	Where people believed the earth was at the centre of the solar system
Heliocentric	Representing the sun as the centre of the solar system, the modern view of the solar system
Moon	A natural satellite of any planet
Night	The period from sunset to sunrise in each twenty-four hours
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
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
Sun	The star round which planets orbit



Know how to…

Working Scientically

- Describe the movement of the Earth, and other plan-
- Describe the movement of the Moon relative to the Earth
- Describe the Sun, Earth and Moon as approximately spherical bodies
- Use the idea of the Earth's rotation to explain day and night