



Science Knowledge Organiser - Earth and Space.



Lesson Sequence

- L1-1- Explore the solar system and its planets.
L2- Understand the heliocentric model of the solar system.
L3- Explain Earth's movement in space.
L4- Explain the Earth's rotation and night and day.
L5- Explain the movement of the Moon.
L6- End of unit assessment.



1. Explore the solar system and its planets.
2. Understand the heliocentric model of the solar system.
3. Explain Earth's movement in space.
4. Explain the Earth's rotation and night and day.
5. Explain the movement of the Moon.

Progress Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Topics including Science						
Space						
Using Things and Their Habitats						
Evolution and Extinction						
Seasonal Changes						
Forces				Forces and Magnets	Forces	
Light						
Sound						
Earth and Space						
Electricity						
Materials	Everyday Materials	Uses of Everyday Materials	Builds	States of Matter	Properties and Changes of Materials	

Working Scientifically



Asking Questions



Making Predictions



Setting Up Tests



Observing and Measuring



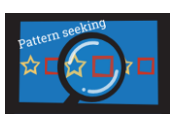
Recording Data



Interpreting and Communicating Results



Evaluating



What will I know by the end of the unit?

- I know how the Earth, and other planets, move relative to the Sun in the solar system
- I know how Moon moves relative to the Earth
- I know that the Sun, Earth and Moon are approximately spherical bodies
- I know about the other planets in our solar system and can compare them to Earth.
- know 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 (Pluto was reclassified as a 'dwarf planet' in 2006)
- know that a moon is a celestial body that orbits a planet (Earth has one moon; Jupiter has four large moons and numerous smaller ones)
- I know that the Earth's rotation explains day and night and the apparent movement of the sun across the sky.
- I know where world time is recorded from (GMT).
- To know how to find out the time of day at different places on the Earth - longitude, latitude, GMT etc.
- Know what AM and PM mean
- I know that the time of sunrise and sunset varies according to the season and can explain why this happens.
- Know about some of the ideas about the solar system and how they have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus.
- To know why some people think that structures such as Stonehenge might have been used as astronomical clocks.
- To know how people used shadow clocks and sundials to track time in the past

Vocabulary

Sun, moon, mercury, Venus, earth, mars, Jupiter, Saturn, Uranus, Neptune, spherical, elliptical, rotation, orbit, clockwise, anticlockwise, axis, poles, season, hemisphere, sundial, time zone, gnomon, dial, shadow, waxing, waning, eclipse, phase, rocky planet, gas planet, solar system, geocentric, terrestrial planet, heliocentric