



Science Focus:

Earth and space

Year 5

Autumn 2

Key Knowledge

The Planets

	The planets in order of distance from the sun:	You can remember the order of the planets using a mnemonic:
There are eight planets in our solar system	- Mercury - Venus - Earth - Mars - Jupiter - Saturn - Uranus - Neptune	- My - Very - Evil - Mouse - Jumps - Straight - Up - Noses

The planets orbit the sun	- The Earth and the other planets move around the Sun in roughly circular paths called orbits. - The Sun is much bigger than the planets, so its gravitational pull is larger. - The planets are held in their orbits by the gravitational pull of the Sun. *The Earth takes about 1 year (365 days) to orbit the sun*
---------------------------	---

Flat earth vs spherical earth

Flat Earth	In medieval times and before, it was commonly accepted that the Earth was flat based on ideas at the time.
Spherical Earth	Nowadays, there is evidence to show that, like the other planets and the moon, the Earth is spherical in shape.

Models of the Solar System

Geocentric model	A view of the Solar System where people believed the earth was at the centre. Aristotle was a Greek Philosopher who thought this.
Heliocentric model	Representing the sun as the centre of the solar system, the modern view of the solar system. Galileo was a scientist who supported this.

Day and Night

The movement of Earth rotating on its axis gives us day and night.	- The Earth takes 24 hours rotate on its axis (1 day). - The side of the Earth facing the Sun is lit up – it is daytime for this side. - The side facing away from the sun is in darkness – it is night-time for this side. *Because the Earth is rotating, the Sun appears to move across the sky. However, it is the Earth moving not the Sun.*
--	--

The Moon

The Moon orbits the Earth	- The Moon is a roughly spherical rock that orbits the Earth. - It takes about 28 days for the Moon to orbit the Earth.
---------------------------	--

Key Vocabulary

Spelling	Definition/Sentence
Earth	Planet inhabited by humans.
Celestial	Positioned in or relating to the sky, or outer space as observed in astronomy.
Planet	A celestial body moving in orbit round a star.
Moon	A natural satellite of any planet.
Spherical	Shaped like a sphere.
Star	A fixed luminous point in the night sky which is a large, remote body(like the sun).
Sun	The star around which the planets orbit.
Rotation	The action of moving about an axis or centre.
Orbit	The regularly repeated oval course of a celestial object around a star or planet.
Solar system	The collection of eight planets and their moons in orbit round the sun.
Axis	An imaginary line about which a body rotates.
Night	The period from sunset to sunrise in each twenty-four hours.
Day	A twenty-four hour period, from one midnight to the next, corresponding to a rotation of the earth on its axis.

	The Moon is held in its orbit by the Earth's gravitational pull.
The Moon appears to change shape	- The Moon looks bright because it reflects light from the Sun. - From the Earth, we see different bits of the Moon being lit up as it moves around us. - It looks like the Moon is changing shape, but it isn't – it stays the same shape. (See diagram below.)

Diagrams	
The Solar System	
Moon phases	