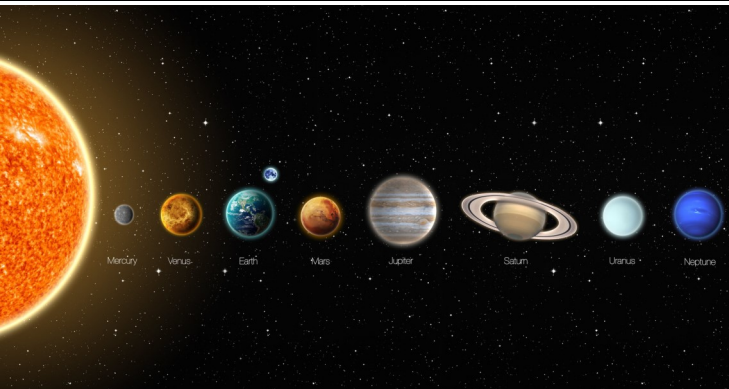




Science Focus:	Earth and Space	Year 5	Summer Term 1
----------------	-----------------	--------	---------------

The Earth and the Sun

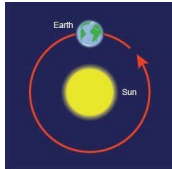

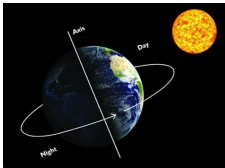
WARNING	It is not safe to ever look directly at The Sun, even when wearing sunglasses.
What is the Sun?	The Sun is a star at the centre of our solar system.
What is the solar system?	The solar system has eight planets; Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
How is the Earth related to the Sun?	The Earth orbits (goes around) the Sun. The Earth takes one year to orbit the Sun. The Earth is held in its orbit round the Sun by the Sun's gravitational pull.



The Rotation of the Earth

How else does the Earth move?	<ul style="list-style-type: none"> The Earth spins on its own axis. The Earth takes 24 hours (1 day) to completely rotate on its axis.
What causes day and night?	<ul style="list-style-type: none"> The Earth spins once in a day. The side of the Earth facing the Sun is in daytime. The side of the Earth facing away from the Sun is in night time.
What causes sunrise and sun-set?	<ul style="list-style-type: none"> The Sun doesn't move - it is us that moves. Because the Earth is rotating, the Sun appears to move across the sky as the day goes on.

Diagrams

	The Earth orbiting the Sun, which takes one year.
	The Moon orbiting the Earth, which takes 28 days.
	The Earth spinning on its axis, which takes 24 hours.

The Moon and the Earth

What is a moon?	A moon is a celestial body that orbits a planet. The Earth has one moon; Jupiter has four large moons and numerous small ones.
How is the Moon related to the Earth?	<ul style="list-style-type: none"> The Moon orbits the Earth. It takes about 28 days for the Moon to orbit the Earth. The Moon is held in its orbit round the Earth by the Earth's gravitational pull.
Why does the Moon appear to change shape?	<ul style="list-style-type: none"> It doesn't actually change shape. It appears to change shape because we cannot always see the side of the Moon that's in sunlight or we can only see part of the sunlit side of the Moon as it orbits Earth.

Famous Scientists

Ptolemy (85-165)	He was an astronomer, mathematician, and geographer. He described in his writing the Greek or geocentric view of the universe. The Greeks thought that the Earth was the centre of the universe. He also thought out and described the apparent motions of the planets, as they were known in his time.
Copernicus (1473-1543)	Nicolaus Copernicus was an astronomer. People know Copernicus for his ideas about the sun and the earth. His main idea was that our world is heliocentric (helios = sun). His theory was that the sun is in the middle of the solar system, and the planets go around it.

Key Vocabulary

Spelling	Definition
axis	An imaginary line around which something rotates.
gravitational	Moving towards a centre of gravity.
orbit	The curved path of an object around a star.
rotating	Moving in a circle around an axis.
solar	Relating to The Sun.