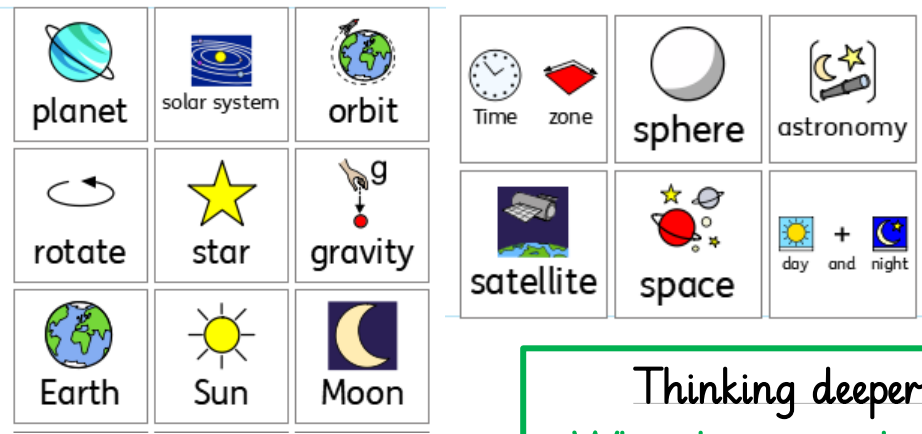


Planet	An object that orbits a star and does not emit its own light.
Star	A giant ball of gas held together by its own gravity and makes heat and light energy.
Gravity	The force that attracts an object towards a larger object.
Orbit	A curved path of a planet taken by one body circling around another body. The earth makes an orbit around the sun.
Solar system	The solar system consists of the Sun and everything that orbits, or travels around, the Sun.
Astronomy	Astronomy is the study of outer space and all of the objects and bodies outside of the Earth's atmosphere, like stars, planets and comets.
Axis	Astronomy is the study of outer space and all of the objects and bodies outside of the Earth's atmosphere, like stars, planets and comets.
Time zone	Time zones give specific areas on the Earth a time of day that is earlier or later than the neighbouring time zones . The time zone is dependent on the Earth's rotation.
Sphere	A round 3D shape in the shape of a ball.
Sun	A huge star that the Earth and other planets in our solar system orbit around.
Moon	A natural satellite which orbits Earth or other planets.
Geocentric model	A belief people used to have that other planets and the Sun orbited around the Earth.
Heliocentric model	The structure of the solar system where the planet orbits around the sun.

Earth and Space



Thinking deeper
What happens when a solar eclipse occurs?

The big picture

What I should know...

Year 3

- I recognise light from the sun can be dangerous and can find ways to protect my eyes.
- I recognise that we need light in order to see things and that dark is the absence of light.

What I will know...

- The movement of the Earth and other planets.
- The movement of the Moon relative to the Earth.
- To describe the Sun, Earth and Moon as approximately spherical bodies.
- To explain day and night and the apparent movement of the sun across the sky.

Links to future topics...

Year 7

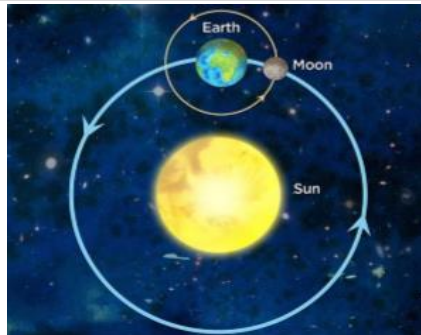
- Explain the effects of the motion of the Sun, Earth, and Moon



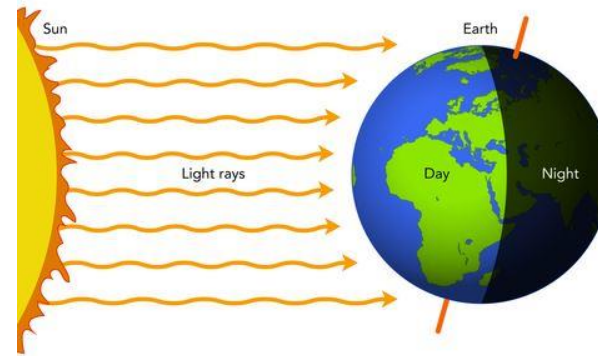
The planets are called Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

An easy way to remember the names of planets in order is:
My Very Easy Method Just Speeds Up Naming

The Moon **orbits** the Earth anti-clockwise and takes approximately 28 days. The Moon spins once on its axis every time it orbits Earth. This means that we only see one side of the Moon. The Moon has different phases depending on where it is in its **orbit**. At different times, the moon appears to be different shapes because the sun light up different parts of the moon as it moves around the Earth. The Moon's **gravity** causes high and low tides.

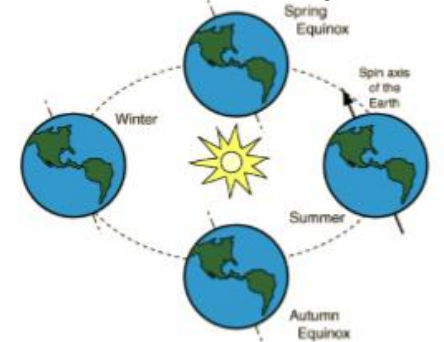


Day and night



The Earth **rotates** one complete turn **every 24 hours** to give us day and night. Daytime occurs when the side of the Earth is facing the sun and night occurs when the side of the Earth is facing away from the sun. When Britain faces the Sun it is daytime in Britain but the other side of the world is in darkness. So, in Australia it is the middle of the night.

Earth **rotates** on an **axis**. During the winter, the North Pole is tilted away from the Sun's rays. As Earth travels around the Sun, the tilt of Earth changes. By June, the North Pole is tilted towards the Sun and the days become very long. Earth takes a year to **orbit** the Sun and it is the tilt which creates the seasons.



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 movement of the Earth.





Knowledge Organiser Focus:

Earth and Space

1) What shape are the Earth, Sun and Moon?

2) Why does the Sun look like it is moving across the sky during the day?

3) True or false?

The Earth orbits around the sun.	
The sun is a planet.	
The gravity of the sun keeps the planets in their orbit.	

4) How long does it take for:

A) The Earth to spin once on its axis? _____

B) The Moon to go around the Earth once? _____

C) The Earth to go around the Sun once? _____

5) (Fill in the blank) The _____ orbits the Earth.

6) Why, in some parts of the world, are the days longer in the summer than in the winter? Tick the correct answer.

Because the Earth is tilted as it moves around the sun	
Because the sun gets brighter in the summer	
Because the Earth spins more slowly in the summer	

7) Explain why the moon seems to change shape.

8) How many planets are there in our solar system? (Tick one)

8

9

10

9) Can you name all the planets?

