

## What will I know by the end of this unit?

- The **Sun**, **Earth** and **Moon** as approximately **spherical** in shape.
- Name and order the **planets** of our **solar system**.
- The Earth **rotates** on an **axis**. It takes 365 **days** or 1 **year** for the Earth to rotate all the way round.
- The Earth's **rotation** creates seasons.
- The Moon travels around the Earth. It takes the moon 24 **hours** to travel around the Earth. This movement makes **day and night**.
- Earth and the other planets in the solar system **orbit** the sun.
- The sun appears to move across the sky throughout the day. This is due to the Earth's movements. The sun stays still.
- The moon can look different shapes through the **month**. Each **phase** of the moon has a special name.

## The phases of the moon



Science

Year 5

Topic: Earth and Space

Strand: Physics

## What should I already know?

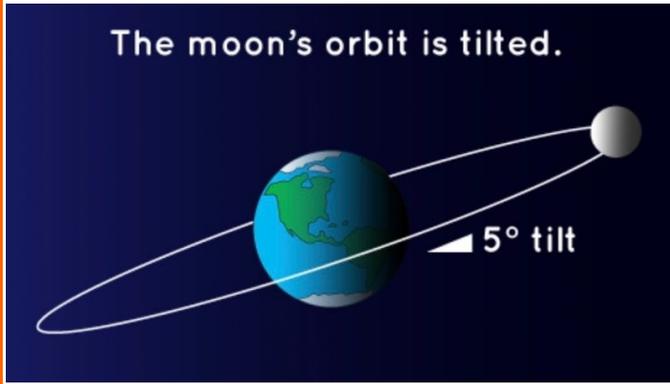
- There are four seasons.
- Each season is very different.
- The weather in each season is different.
- Day length varies in each season.
- The Earth is spherical.
- There is a moon close to Earth.
- There are planets and stars in space.

## Scientific Skills

- Ask questions about Earth, the planets and space.
- take accurate measurements using a range of scientific equipment.
- record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- report what I have found out using scientific language, labelled diagrams, tables and graphs.
- identify scientific evidence that has been used to support or refute ideas or arguments.

## The moon's orbit

The Moon orbits the Earth in an oval-shaped path while spinning on its axis. At various times of the month, the Moon appears to be different shapes. This is because as the moon rotates round Earth, the sun lights up different parts of it.



## The planets

The first 4 planets closest to the sun, Mercury, Venus, Earth and Mars are rocky planets. They are mostly made up of metal and rock.

The other planets, Jupiter, Saturn, Uranus and Neptune are gas planets. They are mostly made up of the gases, helium and hydrogen, although their cores are made up of metal and rock.

## The Solar System



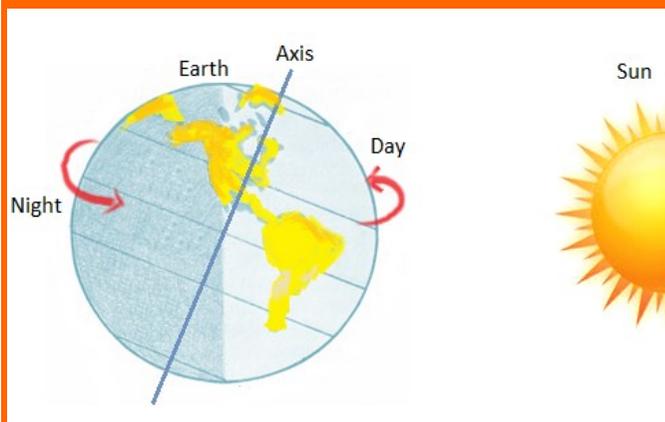
## Subject Specific Vocabulary

<b>sun</b>	It is a huge star that Earth and other planets in our solar system orbit around.	<b>satellite</b>	Any object or body in space that <b>orbits</b> something else e.g. the <b>Moon</b> is a <b>satellite</b> of Earth.
<b>Earth</b>	This is the planet that we live on. It is the 4th planet in the solar system.	<b>phase</b>	The phase of the moon is how much of the moon appears to us on Earth to be lit up by the sun.
<b>star</b>	A giant ball of gas held together by it's own gravity.	<b>orbit</b>	This means to move in a regular, repeating curved path around another object.
<b>moon</b>	This is a natural satellite which orbits earth and other planets.	<b>rotate</b>	This means to spin around
<b>planet</b>	These are a large object, round or nearly round, that orbits a star.	<b>axis</b>	This is an imaginary line that a planet <b>rotates</b> around.
<b>sphere</b>	A round 3D shape like the shape of a ball.	<b>geocentric model</b>	A belief people used to have that other <b>planets</b> and the <b>Sun orbited</b> around Earth.
<b>spherical bodies</b>	Astronomical objects shaped like spheres.	<b>heliocentric model</b>	The structure of the Solar System where the <b>planets orbit</b> the Sun.

## Pluto

Pluto used to be considered a planet but was classified as a dwarf planet in 2006.

## The Earth's orbit



Can you think of a mnemonic to help you to remember the order of the planets in the solar system?

Can you explain how we get day and night?

