

Year 5 Summer Term Knowledge Organiser

KEY QUESTION: What have scientists learnt about the Earth and Beyond?

Solar system facts



Earth and Beyond Vocabulary

Earth	Mars	Rotate	seasons
Sun	Jupiter	axis	Universe
Moon	Saturn	orbit	galaxy
Planets	Uranus	satellite	asteroid
Star	Neptune	moon	astronomy
Mercury	Pluto	waxing	Ptolemy
Venus	Spherical	waning	Alhazen
Earth	Sphere	day / night	Copernicus

The Sun is a star.

The Earth is one of eight planets that travel around the Sun in our **solar system**

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

The solar system is also home to lots of asteroids, moons, and **dwarf planets** such as Pluto.

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

Time

The Earth to spin once on its axis.
(When the Earth faces the sun it is daylight and when it faces away from the sun it is night. It makes the sun appear to travel across the sky)

24 hours

The moon to orbit the Earth
(A lunar month - see Phases of the Moon)

28 days

The Earth to orbit the sun
(Every 4 years there is a leap year due to the extra quarter - an extra day in February)

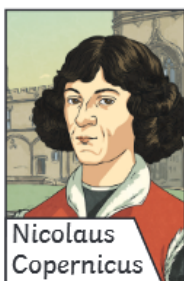
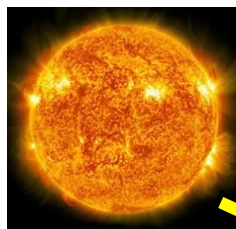
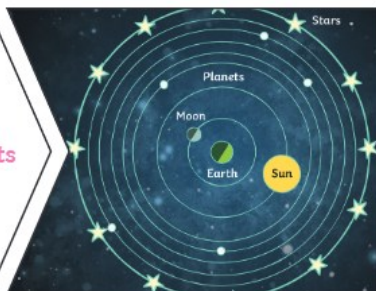
365 days ¼ days

The Earth's tilt on its axis is what causes the 4 seasons. Sometimes it points towards the sun and other times it points away from the sun.



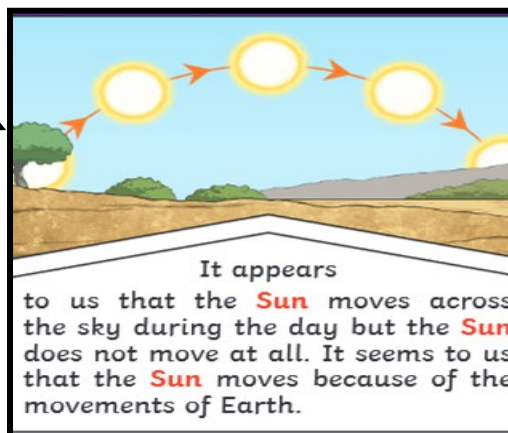
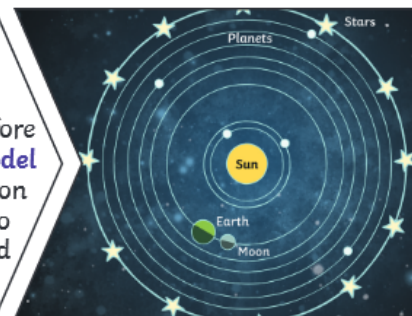
Geocentric model

Years ago people believed that **planets** moved around the Earth.

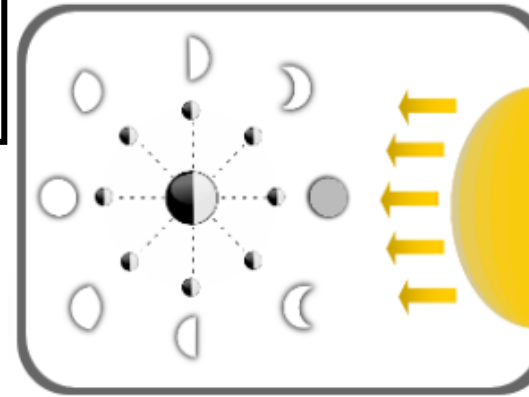


Nicolaus Copernicus

The work and ideas of many **astronomers** (such as Copernicus and Kepler) combined over many years before the idea of the **heliocentric model** was developed. Galileo's work on gravity allowed **astronomers** to understand how **planets** stayed in **orbit**.



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 movements of Earth.

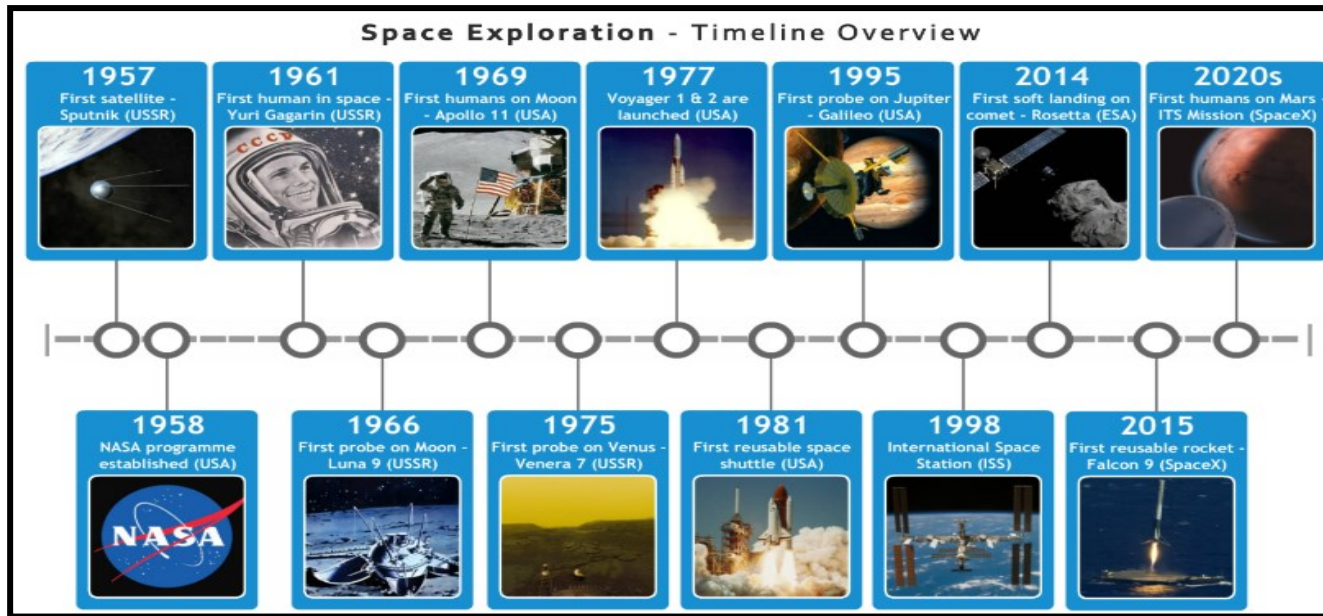


Waning means the moon looks like it is getting smaller. Waxing means the moon looks like it is getting larger. How much of the moon we see, depends on how much sunlight is hitting it. The moon reflects this sunlight.



The Moon
The Moon orbits the Earth anticlockwise 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.



Activities to do at home

Bring in your work so it can be shared and celebrated

1. Create a 3D space Rocket Model
Draw a labelled diagram of the rocket to explain the function of each part.
2. Keep a sky at night journal. Write about everything you can see in the sky. Record the moon's shape every night. Does it change over the course of the week?
3. Make a space mobile .
4. Bake your own space themed biscuits. They could be star, rocket or planet shaped. They could even include space rocks such as popping candy! Record the recipe.
5. Complete a character study of Neil Armstrong or any other famous astronaut/ cosmonaut.
6. Design an alien (look to the natural world for features) and create an alien mask.



Tim Peake, British Astronaut
Major Tim Peake became the first British astronaut in space for over 20 years when he blasted off for the International Space Station on 15th December 2015.



These are some of the texts we will be using during Reading sessions.

