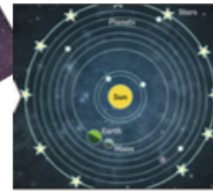




Key questions:

- What is the significance of the Sun and Moon?
- What is the Solar System?
- Can you give key facts for the planets?
- What are the planets in our solar system?

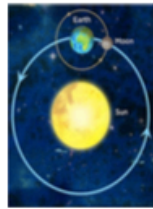


Enquiry

This topic will link to our 'enquiry' driver, as we find out about how Earth and Space correlate to one another. How Scientists carry out investigations and observations to prove theories.

Key Facts and Dates

The Sun and Moon



-The Sun is a star: a huge ball of hot **gas** that gives off light and heat. The Earth and all planets orbit the Sun.
 -It takes just over **365** days to make one orbit around the sun - 1 year.
 -The Earth and planets are held in place around the Sun by gravity.
 -The Earth is always spinning around. When Earth is facing the Sun it's day. When facing away it's night. It takes 24 hours to complete a spin.
 -Some objects orbit around the planets; these are moons. The Earth has 1 moon. The moon is much smaller than the Earth, and takes one full day to complete an orbit around the Earth.

The Solar System

-The solar system includes the Sun and all of the objects that orbit around it due to gravity.
 -The 5 dwarf planets are: Haumea, Makemake, Ceres, Eris and Pluto.
 -Earth is the only known planet in the solar system with living things. Planets closer to the sun are thought to be too hot and planets further away are too cold.
 -You could fit roughly 1.3 million Earths into the Sun!
 -Many of the planets have moons. Jupiter has around 80 moons!
 The stars in our galaxy are called The Milky Way. The Milky Way is one of billions of galaxies in the universe!

Planet facts

Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Area: 0.047 Earths 6 th Largest	Area: 0.902 Earths 6 th Largest	Area: 1 Earth 5 th Largest	Area: 0.284 Earths 7 th Largest	Area: 121.9 Earths 1 st Largest	Area: 83.7 Earths 2 nd Largest	Area: 15.01 Earths 3 rd Largest	Area: 14.26 Earths 4 th Largest
Moons: None	Moons: None	Moons: 1 moon	Moons: 2 moons	Moons: Around 80 moons	Moons: Around 65 moons	Moons: Around 30 moons	Moons: Around 15 moons
Length of Day: 1,408 hours	Length of Day: 5,832 hours	Length of Day: 24 hours	Length of Day: 25 hours	Length of Day: 10 hours	Length of Day: 9 hours	Length of Day: 17 hours	Length of Day: 16 hours
Length of Year: 88 days	Length of Year: 225 days	Length of Year: 365 days	Length of Year: 687 days	Length of Year: 12 Years	Length of Year: 29 Years	Length of Year: 84 Years	Length of Year: 165 Years

What you should already know...



- The Earth (our planet) is a part of the solar system. At the centre of the Solar System is the Sun. The Sun is a star
- There are 8 planets and 5 dwarf planets in the Solar System, which orbit (go around) the Sun.
- The Earth rotates on its axis once every 24 hours (one day). This causes day and night, as different parts of the planet face the Sun.
- The Moon orbits around the Earth. The Sun, Earth and Moon are all roughly spherical.

Vocabulary

Sun	A huge star that Earth and other planets in our solar system orbit
Star	A giant ball of gas held together by its own gravity
Moon	A natural satellite which orbits Earth or other planets
Planet	A large object, round or nearly round, that orbits a star
Sphere	A round 3D shape in the shape of a ball
Spherical bodies	Astronomical objects shaped like spheres
Satellite	Any object or body in space that orbits something else, for example: the moon is a satellite of Earth
Orbit	The process of new living things being made
Rotate	Two parents are needed to make offspring which are similar but not
Axis	An imaginary line that a body rotates around. E.g. Earth's axis (imaginary line) runs from the North Pole to the South Pole
Geocentric	A belief people used to have that other planets and the Sun orbited around the Earth
Heliocentric	The structure of the Solar System where the planets orbit the Sun
Astronomer	Someone who studies/an expert in astronomy (space science)

