

# EARTH AND SPACE

## Knowledge Organiser



Year 5, Summer Term: Earth and Space  
 Science Strand: Physics  
 Whole School Topic: Why is the Earth so angry?

### Key Vocabulary

Earth	the planet we live on - it is the third planet from the sun
Moon	a natural satellite which orbits the Earth or other planets
orbit	the curved path that an object follows going around a star or a planet
planet	an object, made of rock or gas, that orbits a star and does not emit its own light
satellite	an object, either natural or man made that orbits around a planet
solar system	the sun and all the planets that orbit around it
star	a large ball of burning gas in space
Sun	a star that the Earth and other planets orbit around

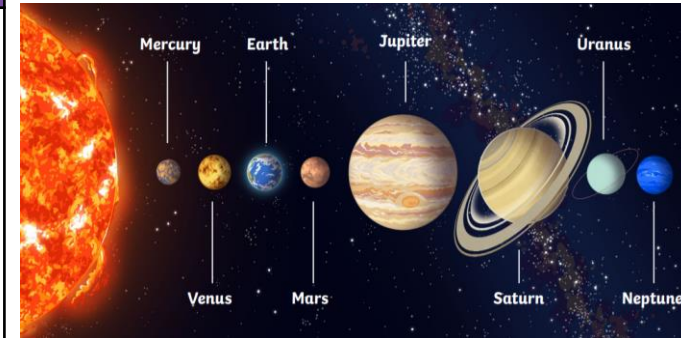
Scientific Enquiry Approaches that we can use this term:



### What will I know about earth and space by the end of this topic?

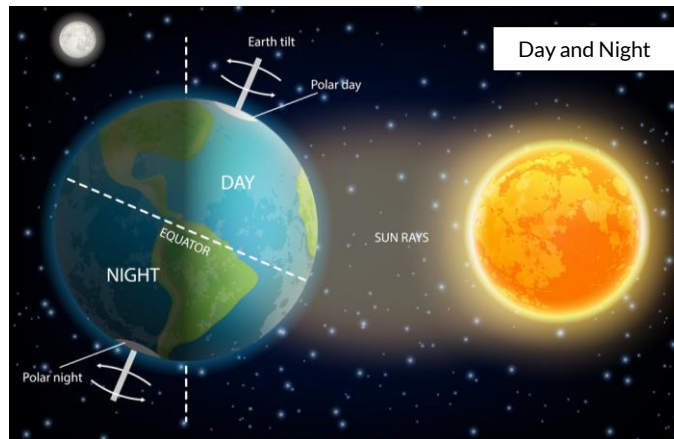
- The Sun is a star and it is at the centre of our universe.
- Know that there are 8 planets and be able to name them.
- The planets travel around the sun in fixed orbits.
- Describe the movement of the Earth, and other planets, relative to the sun in the solar system.
- Describe the movement of the moon relative to the Earth.
- The Sun, Moon and Earth are approximately spherical.
- Use the idea of the Earth's rotation to explain day and night.

There are 8 planets in our solar system. They all orbit the sun which sits in the centre.



The planets closest to the sun are the hottest, and the planets furthest away are the coolest.

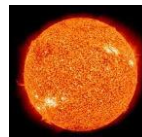
Our planet, Earth, is just the right temperature for life.



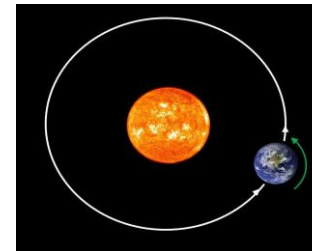
Day and Night

The Earth rotates on its axis anticlockwise. It does a full rotation once every 24 hours, which is our 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.

Different parts of the Earth experience daylight at different times. This means that it is morning, afternoon and night at different times around the world.



The Sun is a star. It gives heat and light to all of the planets in our solar system.



It takes the Earth 365 ¼ days (1 year) to orbit the Sun. The extra ¼ day that it takes for the earth to orbit the sun is the reason we have a leap year every 4 years. As Earth travels around the Sun, the tilt of Earth changes. It is the tilt which creates the seasons.

The Moon orbits Earth anticlockwise in an oval-shaped path while it spins on its axis. It takes approximately 28 days to do this.



The moon spins once on its axis every time it orbits the Earth. At different times in the month the moon appears to be different shapes. This is because the sun lights up different parts of the moon as it moves around the Earth every time it orbits the Earth.



Did you know that there used to be 9 planets in our solar system? The ninth planet was called Pluto. Scientists deemed it too small to be called a planet. It is now known as a dwarf planet.