



Earth and Space Knowledge Organiser

ASTRONAUTS and SPACE MISSIONS

The first man-made satellite to orbit Earth was called Sputnik and was launched by the Soviet Union in 1957.

Yuri Gagarin was the first human in space in 1961.

Neil Armstrong was the first person on the moon in 1969.



The International Space Station was launched in 1998 and is a joint project between 5 space agencies (USA, Russia, Japan, Europe and Canada). It is a research laboratory which is in Earth's orbit.

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

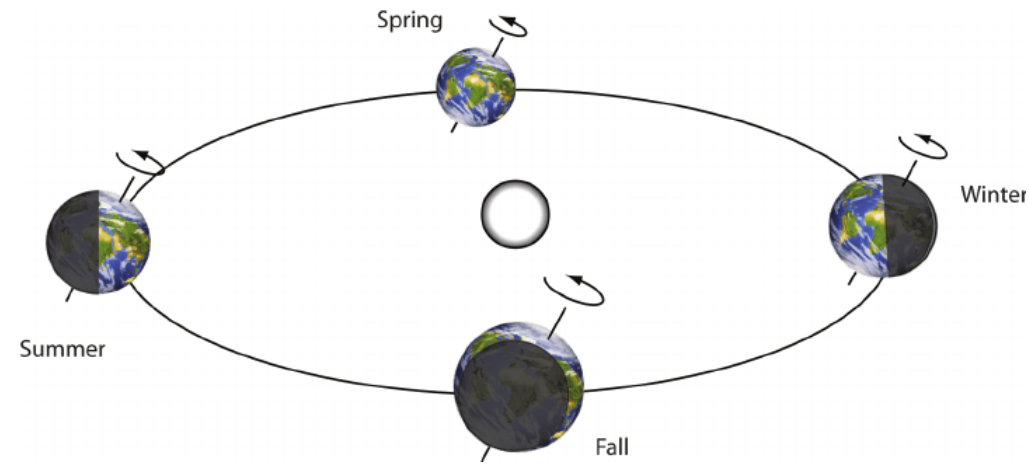


Key Vocabulary

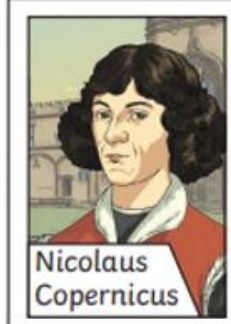
Sun	A huge star that Earth and the other planets in our solar system orbit around.
star	A giant ball of gas held together by its own gravity.
moon	A natural satellite which orbits Earth or other planets.
planet	A large object, round or nearly round, that orbits a star.
sphere	A round 3D shape in the shape of a ball.
spherical bodies	Astronomical objects shapes like spheres.
satellite	Any object or body in space that orbits something else, for example: the Moon is a satellite of Earth.

THE PLANETS

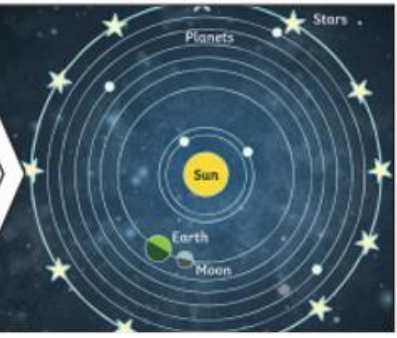




During the winter, the North Pole is tilted away from the Sun's rays. As the Earth travels around the Sun, the tilt of the Earth changes. By June, the North Pole is tilted towards the Sun and the days become very long. Earth takes a year to orbit the Sun and it is the tilt that creates the seasons.



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**.

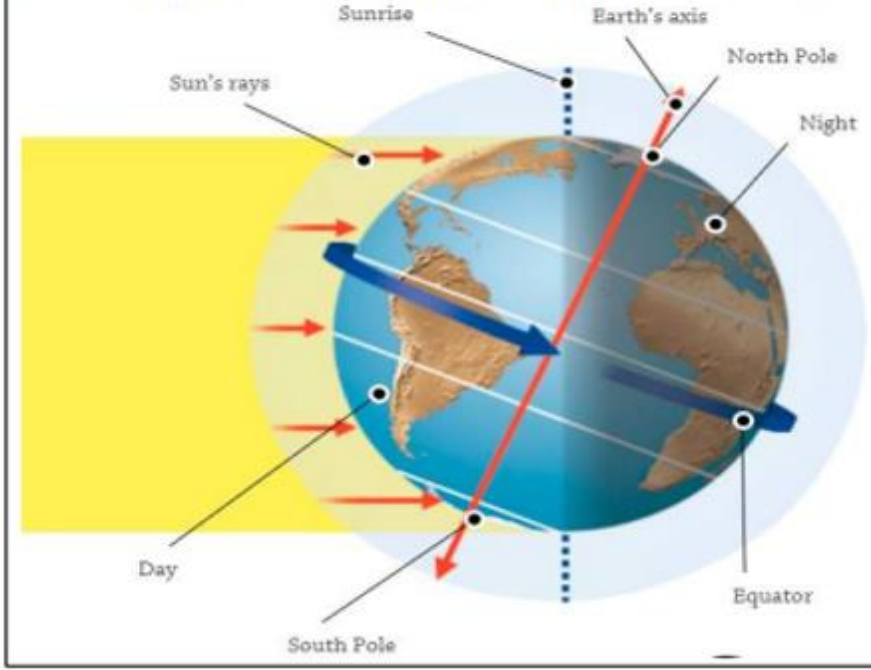


An easy way to remember the names of planets in order is:
My Very Easy Method Just Speeds Up Naming

Key Vocabulary

orbit	To move in a regular, repeating curved path around another object.
rotate	To spin. E.g. Earth rotates on its own axis .
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 model	A belief people used to have that other planets and the Sun orbited around Earth.
heliocentric model	The structure of the Solar System where the planets orbit around the Sun .
astronomer	Someone who studies or is an expert in astronomy (space science).

DAY and NIGHT - Earth rotates (spins) on its axis, it does a full spin 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.



THE EARTH and THE MOON

The moon orbits Earth in an oval-shaped path whilst it spins on its axis. 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 the moon moves around the Earth.

