

Space

KNOWLEDGE ORGANISER



ESSENTIAL SPACE VOCABULARY	
Apollo 11	Apollo 11 was the spaceflight that first landed humans on the Moon.
Sputnik	Sputnik was the name of the world's first artificial Earth satellite.
astronaut	An astronaut is a person trained to command or pilot a spacecraft.
cosmonaut	A cosmonaut is a Russian astronaut.
atmosphere	The pocket of gases surrounding a planet.
planet	A large round object that orbits a star.
star	A huge ball of gas held together by its own gravity.
orbit	The curved path of a celestial object around a star, planet or moon.
satellite	An object in space that orbits something else.
moon	A natural satellite which orbits Earth (or other planets).
Sun	A huge star in our solar system that the planets orbit around.
engineer	A person who designs, builds or maintains engines or machines.
expedition	An exploratory journey undertaken by a group of people.
scientist	A person who is studying or has an expert knowledge in an area of science.
navigate	To plan and direct the course of a ship, aircraft or other form of transport.

1942	1957	1957	1961	1963	1969	1990	1991	2001
The first rocket (the V2) is launched	Laika the dog is sent to space	The first satellite (Sputnik) is sent to space	Yuri Gagarin is the first man in space	Valentina Tereshkova is the first woman in space	Neil Armstrong and Buzz Aldrin land on the moon	The Hubble telescope is launched into a low Earth orbit	Helen Sharman is the first British astronaut in space	Dennis Tito is the first space tourist

Solar System Models

Years ago, people believed that planets moved around the Earth (the geocentric model). Based on the work of astronomers, we now know that the planets move around the Sun (the heliocentric model).

The Planets

The four planets closest to the Sun (Mercury, Venus, Earth and Mars) are rocky planets made up of metal and rock. The next four planets (Jupiter, Saturn, Uranus and Neptune) are gas planets made up of helium and hydrogen, with cores of rock and metal.

The Sun

The Sun looks like it moves across the sky during the day, but it actually doesn't move at all!

In actual fact, the Earth orbits around the Sun. It takes a little longer than 365 days to orbit the Sun.

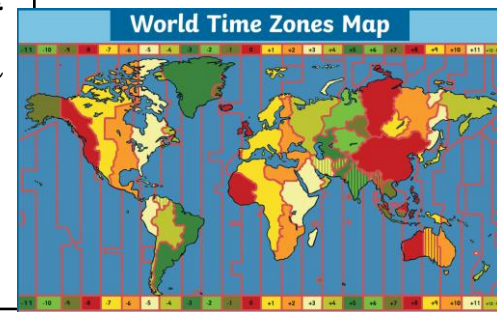
The Moon

The Moon orbits the Earth while spinning on its axis. The Moon doesn't produce any light, but we can see it because the light from the Sun reflects off it. At different times of the month, the Moon appears to change shape because we can see different parts of the lit part as it orbits the Earth.

Fun fact! Because there is no atmosphere on the Moon, you can still see the footprints from the Moon landing.

Day and Night

Earth rotates around on its axis. It takes 24 hours to do a full rotation. The side of the Earth that is facing the Sun experiences daytime, while the side of the Earth facing away from the sun experiences night. That means that when it is day in England, it is night in Australia.



MAKING LINKS TO PREVIOUS LEARNING GOLDEN VOCABULARY

Inventions	The machines used in our daily lives were designed by engineers .
Explorers	Explorers embark on expeditions to investigate new places.
Science topics	Scientists study different areas of science to make new discoveries.
Explorers	Explorers navigate their means of transport to explore new areas.

Fun fact! The Sun is so large that the Earth could fit into it 1,000,000 (1 million) times

Man on the Moon

On July 21st, 1969, Neil Armstrong became the first man to walk on the Moon. He was accompanied on the mission by Buzz Aldrin and Michael Collins, and both Neil and Buzz spent three hours walking on the moon, conducting experiments, collecting samples and taking photographs.