



Science Knowledge Organiser

Year 5 ★Space

Key

sun a huge star that is near to Earth. Earth and other planets in our solar system orbit around the Sun

star a giant ball of gas held together by its own gravity. The life cycle of a star spans billions of years. As a general rule, the more massive the star, the shorter its life span

moon also known as natural satellites - orbit planets and asteroids in our solar system. Earth has one moon, and there are more than 200 moons in our solar system

planet a large object, round and nearly round, that orbits a star

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 a regular, repeating path that one object in space takes around another one. An object in an orbit is called a satellite. A satellite can be natural, like Earth or the moon. Many planets have moons that orbit them

astronomer someone who studies or is an expert in astronomy (space scientist)

geocentric model a belief that people used to have that other planets and the Sun orbited around Earth

Significant persons

Nicolaus Copernicus - (1473-1543)

was a mathematician and astronomer who proposed that the sun was stationary in the centre of the universe and the earth revolved around it. Creating the heliocentric model and moving away from the geocentric model.

His work was the foundation stone on which many other great scientists such as: Galileo, Kepler and Newton, have been able to prove their philosophies.



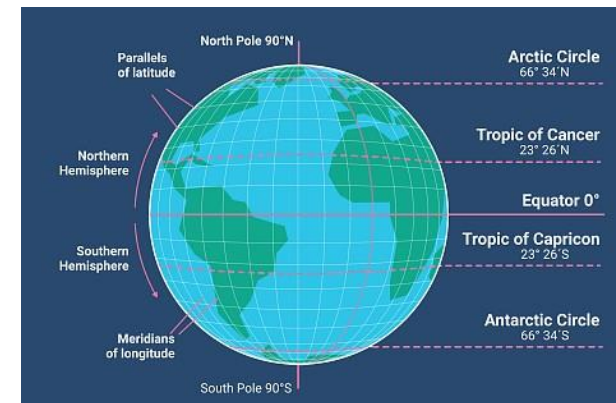
Neil Armstrong - (1930-2012)

Neil Armstrong was the first human to walk on the moon during the NASA (National Aeronautics and Space Administration) Apollo 11 mission on 20th July 1969. He

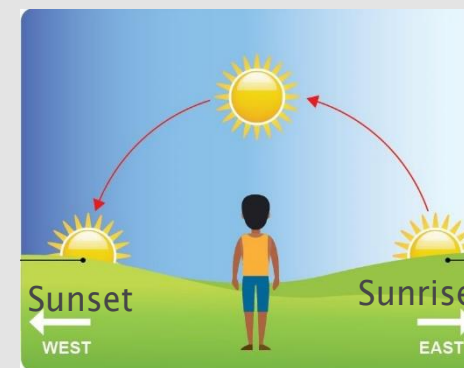
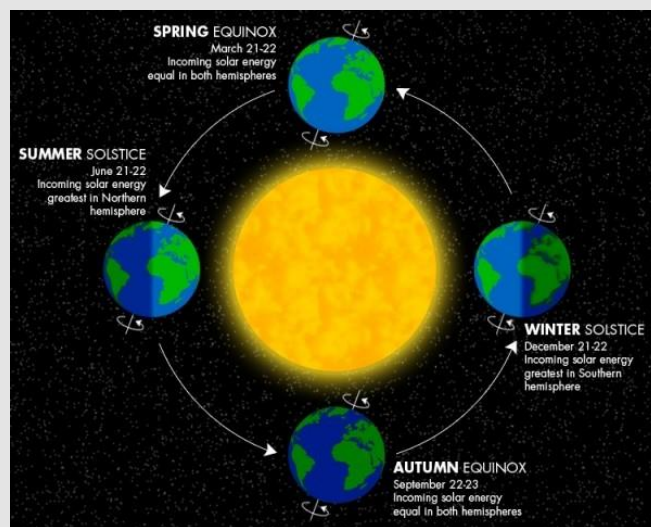
completed the mission alongside co-pilots Edwin E. “Buzz” Aldrin and Michael Collins. He got his student pilot’s license when he was just 16 – before he even learned to drive a car!



- Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)
- Shapes - Sphere - A round 3D shape.
- Rotate - to turn about an axis or a centre. The Earth rotates on its axis.

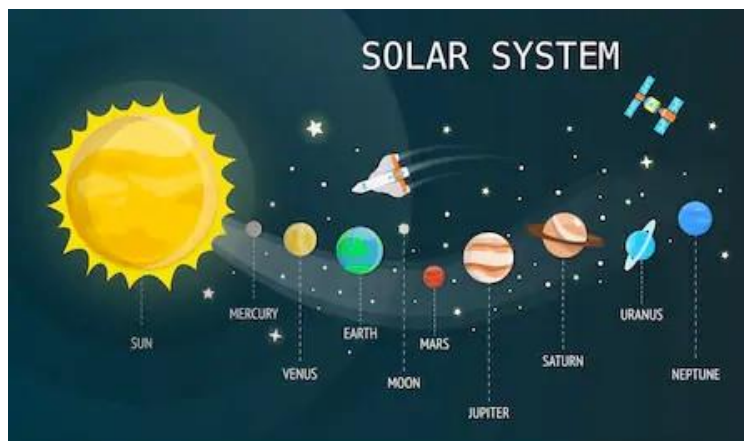


Earth rotates on its axis. It takes 24 hours (a day) to complete a full rotation. At the same time that the Earth is rotating, it is also orbiting around the Sun. It takes 365 and a ¼ days to complete a full orbit of the Sun. That is why we need a Leap Year (366 days) every 4 years.



It appears that the Sun moves across the sky during the day. Rising in the East and setting in the West. However, the Sun does not move at all it is the Earth that rotates on its axis that is moving.

Diagram



Daytime occurs when the side of the Earth is facing towards the Sun. Night time occurs when the side of the Earth is facing away from the Sun.

