Space Science Knowledge Organiser

Key Knowledge

Mercury, Earth, Venus and Mars are rocky planets, which are mostly made up of rock and metal. Jupiter, Saturn, Uranus and Neptune are mostly made up of gases (helium and hydrogen), although their cores are rock and metal.

The Earth rotates on it's axis approximately once every 24 hours. This makes our day. At the same time, the Earth orbits the sun, which takes approximately 365 days. Daytime occurs when the Earth faces the sun, and night-time when the Earth is facing away. The sun does not move, even though it appears to.

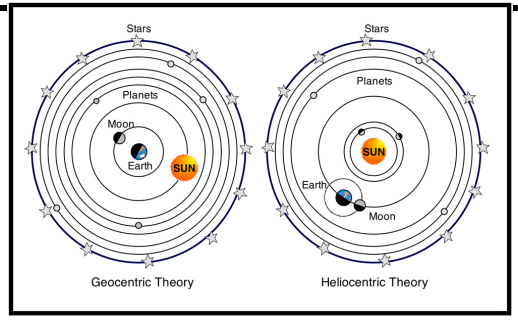
Because the Earth's axis is tilted toward the sun, as we orbit, different parts are closer to the sun, causing seasons.

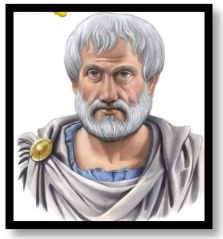
The moon orbits the Earth and this takes around 28 days.

Pluto has been reclassified as a dwarf planet and is often now not included in the list of planets of our solar system.

Geocentric vs Heliocentric Model

In Greek, *Geo* means Earth and *Centric* means centre. This model put the Earth at the centre of the universe and was believed by Aristotle and Ptolemy. The heliocentric model put the sun at the centre of the universe with the planets revolving around the sun. This model was suggested by Copernicus and Galileo.





Aristotle (384-322 BC)

The ancient Greek philosopher Aristotle was one of the greatest thinkers of all time. His writings make up practically an encyclopaedia of ancient Greek knowledge. Aristotle's work influenced almost every area of modern thought.

Aristotle's observations of ships, stars and the moon led him to conclude that the Earth was round and not flat.

The order of the planets

My Very Easy Method Just Speeds Up Naming (Planets)

Key Vocabulary

Astronomer	Someone who studies or is an expert in astronomy (space science
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 and the Sun orbited around Earth.
Heliocentric model	The structure of the Solar System where the planets orbit around the Sun.
Moon	A natural satellite, which orbits Earth or other planets.
Orbit	To move in a regular, repeating curved path around another object.
Planet	A large object, round or nearly round, that orbits a star.
Rotate	To spin. E.g. Earth rotates on its own axis.
Satellite	Any object or body in space that orbits something else, for example: the moon is a satellite of Earth.
Sphere	A round 3D shape in the shape of a ball.
Spherical body	Astronomical objects shapes like
star	A giant ball of gas held together by its own gravity.
Sun	A huge star that Earth and the other planets in our solar system orbit around.