

Science Knowledge Organiser

Southwold Primary School



Topic: Space

Year: 5

Strand: Physics

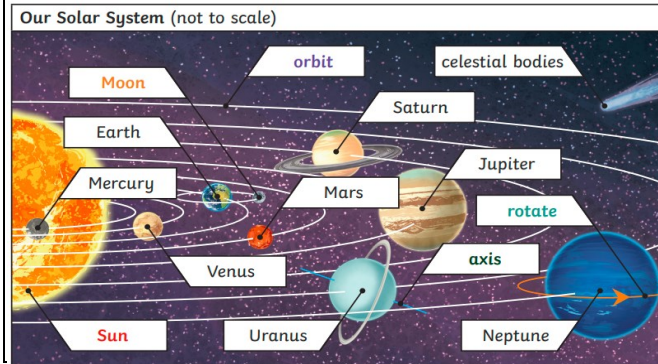
What should I already know?

- Earth is a planet which is one of many in our solar system.
- During the day we see the sun, which is a star, and at night the moon. We see the moon because of reflection of sunlight that shine on it.
- The Earth is not flat but a spherical shape.

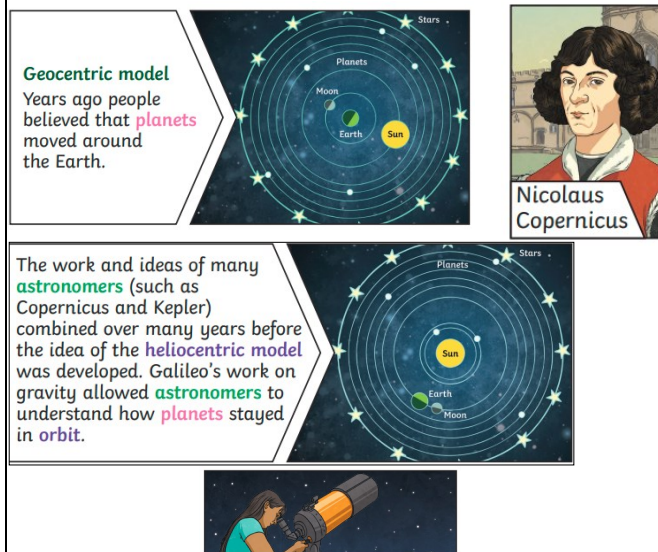
What will I know by the end of this unit?

- The names and order of the objects in the Solar System that orbit the Sun in elliptical paths. Moreover, the orbits of these objects lie roughly in the same plane, called the ecliptic plane.
- We get day and night because the Earth spins (or rotates) on an imaginary line called its axis and different parts of the planet are facing towards the Sun or away from it. It takes 24 hours for the Earth to turn all the way around, and we call this a day. Over a year, the length of the daytime in the part of the Earth where you live changes. This creates the seasons.
- The Moon moves around the Earth in a movement called revolution. This is very similar to Earth's revolution around the Sun. The path the Moon takes to go all the way around the Earth is called its orbit. It takes about 27 days for the Moon to revolve around the Earth once.
- Different planets have different gravitational forces.

Our Solar System



Geocentric vs heliocentric model



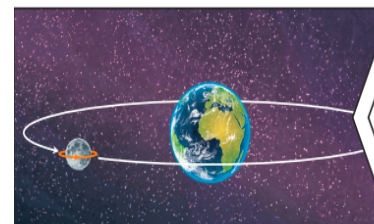
Vocabulary

Sun	A star that Earth, and 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 round a star .
sphere/spherical bodies	A round 3D shape (like a ball)/ Astronomical objects shaped like a ball.
satellite	An object or body in space that orbits around something else.
orbit	To move in a regular, repeating curved path around another object.
rotate	To spin. E.g. the Earth rotate on its own axis .
axis	An imaginary line that a body rotates around. E.g. Earth's axis runs from the North Pole to the South Pole.
gravitational force	A pulling force between two objects (e.g. you and the Earth).

Working Scientifically

- Using secondary resources to find information.
- Conducting experiments, recording results and draw conclusions.
- Observing change over time, seeking patterns.

The Moon and Earth



The **Moon** **orbits** Earth in an oval-shaped path while spinning on its **axis**. At various times in a month, the **Moon** appears to be different shapes. This is because as the **Moon** **rotates** round Earth, the **Sun** lights up different parts of it.