

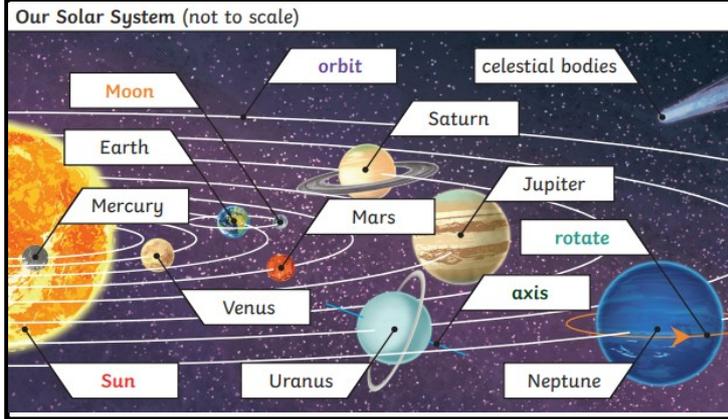


**Prior Learning**

Year 5-Forces  
I can explain the force of gravity acting between an object and the earth.

Year 3-Light  
I can find patterns in the way that the size of a shadow changes when light sources move.

Year 1-Seasonal Changes  
Observe and describe how day length changes



**Earth and Space Year 5 Science Spring 2 2021**

**Key Learning**

- To explain how we know that the Earth, Moon and Sun are spherical.
- To name and order the planets in the solar system.
- To explain how planets move in our solar system.
- To describe the movement of the moon relative to the earth.
- To use the idea of the earth's rotation to explain day and night and the apparent movement of the sun across the sky.

**I will know:**

- the name and order of the eight planets in our solar system
- the sun is a star at the centre of our solar system
- a moon is a celestial body that orbits a planet
- how night and day occur
- how the earth and moon move relative to the sun

**Working Scientifically**

**Learning Objectives**

To identify scientific evidence that has been used to support or refute ideas.

To ask questions and suggesting reasons for ideas or arguments.

To report and present findings from enquiries.

To use secondary sources to research ideas.

To use relevant scientific language and illustrations to communicate ideas .

**Geometric Model**

Years ago people believed that planets moved around the earth.

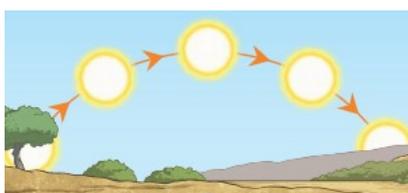


**Heliocentric Model**

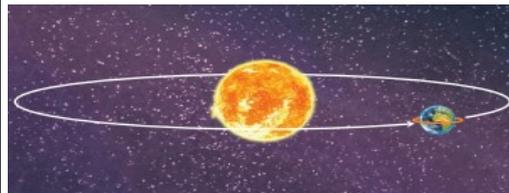
Galileo's work on gravity allowed astronomers to understand how planets stayed in orbit.



**Key Concepts**



It appears to us that the Sun moves across the sky during the day but the sun does not move at all. It seems to us that the sun moves because of the movements of Earth.



Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the sun. Day-time occurs when the side of the earth is facing towards the Sun. Night occurs when the side of Earth is facing away from the sun.



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.

**Vocabulary**

<p><b>Sun</b> A huge star that Earth and the other planets in our solar system orbit around.</p>	<p><b>Star</b> A giant ball of gas held together by its own gravity.</p>	<p><b>Moon</b> A natural satellite which orbits Earth or other planets.</p>	<p><b>Planet</b> A large object, round or nearly round, that orbits a star.</p>	<p><b>Spherical Bodies</b> Astronomical objects shaped like spheres.</p>	<p><b>Satellite</b> Any object or body in space that orbits something else. E.G. the Moon is a satellite of Earth.</p>
<p><b>Orbit</b> To move in a regular repeating curved path around another object.</p>	<p><b>Rotate</b> To spin E.G. Earth rotates on its own axis</p>	<p><b>Axis</b> An imaginary line that a body rotates around. E.G. Earth's axis runs from the North Pole to the South Pole.</p>	<p><b>Geocentric Model</b> A belief people used to have that other planets and the sun orbited around Earth.</p>	<p><b>Heliocentric Model</b> The structure of the solar system where the planets orbit around the sun.</p>	<p><b>Astronomer</b> Someone who studies or is an expert in astronomy (space science).</p>