



Year 5 Topic Space – To infinity and beyond

Prior Learning: Children understand some important processes and changes in the natural world around them, including the seasons

Concept: Earth and Space

In this unit we will be learning about our Solar System and about the movement of the planets in relation to the Sun.

Working scientifically: Observing and asking questions



Ask scientific questions



Observe closely

4. TWAL to explain day and night and the apparent movement of the sun across the sky.

We will learn that the Earth rotates on its axis once every 24 hours and it is this that causes the sunlight to be on different parts of the Earth during the day.

<https://www.bbc.co.uk/bitesize/topics/zkbbkqt/articles/zn34r2p>



Observe closely



The Earth rotates on its axis and the Sun does not move.

1. TWAL to describe the movement of the Earth and other planets relative to the Sun in the solar system

We will learn that the Earth and other planets orbit (revolve) around the Sun. The Earth orbits the Sun once every 365 days (1 Year) and it rotates on its axis once every 24 h

The planets in our Solar System all orbit around the Sun



Ask scientific questions



5. TWAL to understand how the geocentric model of the solar system gave way to the heliocentric model by referring to the work of scientists such as Ptolemy, Alhazen and Copernicus.

We will learn about the two different models of planetary movement- the Geocentric model with Earth at the centre of the Solar System and the Heliocentric model with the Sun as the centre of the Solar System.



The Earth and all other planets orbit the Sun.



Ask scientific questions

2. TWAL to describe the movement of the Moon relative to the Earth

We will learn about the different phases of the Moon and what the physical effects of the Moon are on Earth. The Moon orbits the Earth once every 27.3 days and rotates on its axis once every 28 days. Video:

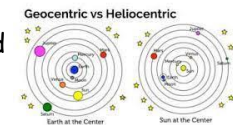
<https://www.youtube.com/watch?v=f4ZHdzl6ZWg>

The Moon is a natural satellite of Earth.



6. TWAL to create a factfile about the progression from the Geocentric model of the Solar System to the Heliocentric model

Let's put all our new knowledge about the Solar System models together! Create a Solar System model factfile. Remember to include facts about the Scientists involved and the main discoveries they made.



3. TWAL to describe the Sun, Earth and Moon as approximately spherical bodies

We will learn about the definition of 'roughly spherical' and why this is important in relation to the definition of a planet: <https://www.bbc.co.uk/bitesize/clips/zd3fb9q>

The Earth is roughly spherical because of the centrifugal force created as Earth rotates on its axis.



Ask scientific questions



Words we will know!

