

# Bomere and the XI Towns Federation Knowledge Organiser—Earth and Space

Topic: Science— Earth and Space

Class/Year Groups: Stiperstones

Term: Spring

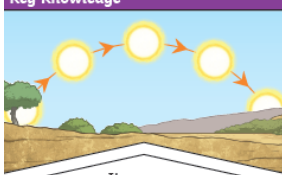
## What you already know?

Pupils will not have studied space before but will have studied shadows and their formation in Year 3.


## Extra vocabulary

Orbit	To move in a regular, repeating curved path around another object.
Rotate	To spin, E.g. Earth rotates 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.
Astronomer	Someone who studies or is an expert in astronomy (space science)

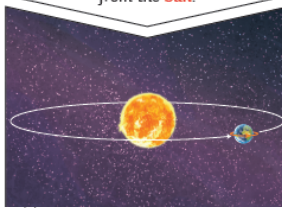
**Key Knowledge**



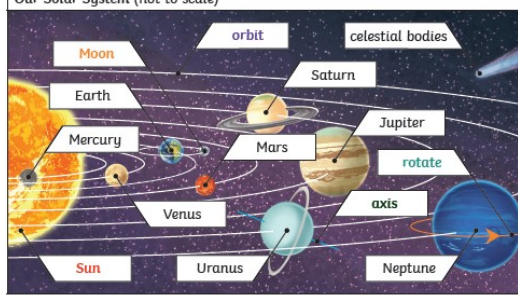
It appears to us that the **Sun** moves across the sky during the day but the **Sun** does not move at all. It seems to us that the **Sun** moves because of the movements of Earth.



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



**Our Solar System (not to scale)**



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:

Sun	A huge star that Earth and the 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 a star.
Sphere	A round 3D shape in the shape of a ball.
Spherical Bodies	Astronomical object shapes like spheres.
Satellite	Any object or body in space that orbits something else, for example: the moon is a satellite of Earth.



## National Curriculum Objectives:

- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- Describe the movement of the Moon relative to the Earth
- Describe the Sun, Earth and Moon as approximately spherical bodies
- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

