Knowledge Organiser	Subject: Science	Topic: Earth and Space	Year: 5

Key Knowledge

The Sun is a star. It is at the centre of our solar system. There are 8 planets (can choose to name them, but not essential). These travel around the Sun in fixed orbits. Earth takes 365¼ days to complete its orbit around the Sun. The Earth rotates (spins) on its axis every 24 hours. As Earth rotates half faces the Sun (day) and half is facing away from the Sun (night). As the Earth rotates, the Sun appears to move across the sky. The Moon orbits the Earth. It takes about 28 days to complete its orbit. The Sun, Earth and Moon are approximately spherical.

Common misconceptions

- The Earth is flat.
- The Sun is a planet that rotates around the Earth.
- The Sun moves across the sky during the day.
- The Sun rises in the morning and sets in the evening.
- The Moon appears only at night.
- Night is caused by the Moon getting in the way of the Sun or the Sun moving further away from the Earth.

Key Learning

- 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.

Disciplinary Skills

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
- Identifying scientific evidence that has been used to support or refute ideas or arguments.

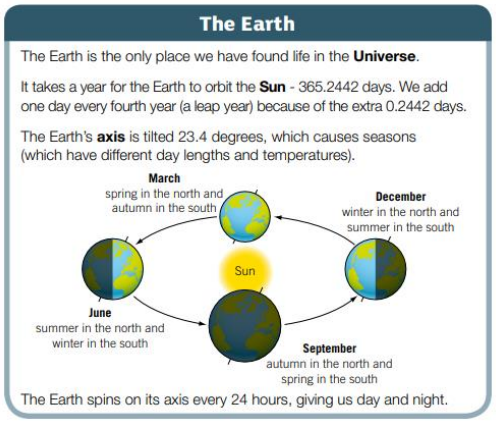
Key Concepts

The Solar System and Planetary Orbits	The Moon's Orbit and the Shapes of Celestial Bodies	Earth's Rotation and the Cycle of Day and Night
The Sun is a star at the centre of our solar system. There are **eight planets** that orbit the Sun in fixed paths. Earth takes **365¼ days** to complete one orbit around the Sun.	The Moon orbits Earth, taking **about 28 days** to complete one cycle. The **Sun, Earth, and Moon** are approximately **spherical** in shape.	Earth rotates on its axis **every 24 hours**. This rotation causes day and night, as one side of Earth faces the Sun while the other is in darkness. The Sun appears to move across the sky due to Earth's rotation.

The Big Question

What is a galaxy and how are we are a part of it?

Key Vocabulary	
Celestial body	A celestial body is a natural object outside Earth's atmosphere, such as the planets, the Sun and the Moon.
Earth	Earth is the third planet from the Sun and the only planet known to support life.
Moon	A moon is a natural satellite that orbits a planet. Earth's moon is called the Moon.
Orbit	An orbit is a regular, repeating curved path that an object follows round another object.
Planet	A planet is a large, spherical celestial body that orbits a star.



Linking Thinking Across Our Learning Journey						
Early Years	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
Earth and space Explore the natural world around us. Describe what we see, hear and feel whilst outside.	**Seasonal changes** Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.				**Earth and Space**	

The Eight Planets of the Solar System

A planet is a large celestial body that orbits a star. Planets are roughly spherical in shape.

There are eight planets orbiting round the Sun in the Solar System, some made of rock and metal (the terrestrial planets) and some made of gas and ice (the gas and ice giants).