

Nova's Cosmic Report: Exploring Earth and Space

Learning objective: To describe the movement of the Earth and other planets relative to the Sun in the solar system, and to explain the Earth's rotation.

Use this writing frame to help Nova the owl explain how our solar system works. Think about the positions of the planets and why we experience day and night on Earth.

High above the trees, Nova the owl looks up at the vast night sky and begins to record her observations about the planets.

Word bank: orbit · rotate · axis · spherical · solar system · day and night · gravity · consequently · furthermore · meanwhile · however

1. The Solar System: Start by explaining what the solar system is made of and how the planets move. You could start with: 'The solar system consists of the Sun at the center, with eight planets that...' (3 marks)

2. The Earth's Rotation: Explain how the Earth moves on its own axis. Consider using these words: 'The Earth rotates on its axis once every 24 hours, which causes...' (3 marks)

3. Day and Night: Describe why one side of the Earth is in darkness while the other is in light. You could write: 'As the Earth spins, the side facing the Sun experiences daylight, whereas...' (3 marks)

4. Orbiting the Sun: Explain how long it takes for the Earth to travel around the Sun. You could start with: 'In addition to rotating, the Earth travels in an orbit around the Sun, a journey that takes...' (2 marks)

5. Conclusion: Summarise why these movements are important for life on Earth. You might say: 'These constant movements are vital because...' (2 marks)

Extension challenge: Research the length of a 'day' on other planets in our solar system. How does the rotation speed of Mars or Jupiter compare to Earth's 24-hour cycle?