

Nova's Space Explorer Log: Our Solar System

Learning objective: To identify and describe the movement and characteristics of the planets and the Sun within our solar system.

Welcome, young astronomer! Nova the owl needs your help to document the solar system. Use your knowledge from our science lessons to complete this logbook. Write clearly and ensure your scientific facts are accurate. You may use the word bank to help you complete your descriptions.

Word bank: orbit · spherical · axis · gravity · rotation · solar system · planet · Sun

1. The Sun's Role: Describe the position of the Sun in our solar system and explain why it is essential for life on Earth. (3 marks)

2. Planetary Motion: Explain the difference between a planet's rotation on its axis and its orbit around the Sun. (3 marks)

3. Shape of the Planets: Why are the Sun, Earth, and Moon spherical in shape? Mention the role of gravity in your answer. (3 marks)

4. Earth's Day and Night: Using the concept of rotation, explain why we experience day and night on Earth. (2 marks)

5. The Solar System Model: If you were to create a model, why is it difficult to show the true scale of the distances between the planets? (2 marks)

Extension challenge: Choose one planet from our solar system and research two interesting facts about its atmosphere or surface features to share with the class.