

Grade 4 Science Assessment: 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 movement of the Moon relative to the Earth.

Read each question carefully. Use your scientific knowledge to provide clear answers. Nova the owl is here to remind you to check your spellings!

Nova the owl is watching the night sky from her branch. She notices that the Sun seems to move across the sky during the day, and the Moon changes its appearance throughout the month. Meanwhile, Max the monkey is busy calculating how long it takes for different planets to travel around the Sun.

Word bank: Orbit · Rotate · Axis · Spherical · Solar System · Gravity · Constellation

1. Explain why we experience day and night on Earth. Use the word 'rotate' in your answer. (2 marks)

2. How long does it take for the Earth to complete one full orbit around the Sun? Give your answer in days. (1 mark)

3. Name all eight planets in our solar system in order, starting from the one closest to the Sun. (4 marks)

4. Describe the shape of the Earth, the Sun, and the Moon. What scientific term is used to describe this shape? (2 marks)

5. Explain the role of gravity in our solar system. What does it stop the planets from doing? (3 marks)

6. Max the monkey says, 'The Moon creates its own light just like the Sun.' Is Max correct? Explain your reasoning using evidence about how we see the Moon. (4 marks)

7. Extended Writing Task: Imagine you are an astronaut traveling through space. Describe what you see when you look out of your window. Include details about the Sun, the Earth's position, and the movement of the planets. (5 marks)

Draw: In the space below, draw a labelled diagram showing the Earth orbiting the Sun. Ensure you include the Earth's axis and show the direction of movement with an arrow.



Extension challenge: Total: /25