

Nova's Galactic Journey: Sorting the Solar System

Learning objective: To describe the movement of the Earth and other planets relative to the Sun in the solar system.

Nova the owl is planning a flight through our solar system! Below is a list of objects and facts. Sort them into the correct categories: 'Planets', 'The Sun', or 'Moons'. Then, draw an arrow to show which object orbits which.

Word bank: Earth · The Moon · Mars · Jupiter · Venus · The Sun · Phobos · Saturn · Titan

1. Sort the items from the word bank into the table below. [Planets: 5 items, The Sun: 1 item, Moons: 3 items] (5 marks)

2. Explain why the Earth does not float away into space. What is the force that keeps us orbiting the Sun? (2 marks)

3. If it takes the Earth 365 days to complete one full orbit around the Sun, what do we call this period of time? (1 mark)

4. Nova notices that the Sun looks much larger than the other stars. Is the Sun actually a star? Explain your answer. (2 marks)

5. True or False: All planets in our solar system take the same amount of time to orbit the Sun. Explain your reasoning. (2 marks)

Draw: Draw a diagram showing the Sun in the centre, with the Earth and the Moon orbiting around it. Label the Sun, the Earth, and the Moon.



Extension challenge: Research how long it takes for Mars to orbit the Sun compared to Earth. Does a year on Mars last longer or shorter than a year on Earth?