

Name \_\_\_\_\_

## Orbiting the Sun: The Dance of Planets in Our Solar System

### Open-Ended Response Questions

1. Imagine a scenario where the gravitational pull of the Sun suddenly vanished. What do you think would happen to the planets in our solar system? How would their motion change?
2. Discuss the concept of inertia and its role in keeping planets in motion. Provide examples of how inertia operates in everyday life.
3. Kepler's Laws of Planetary Motion revolutionized our understanding of celestial bodies. Explain the significance of these laws and how they have contributed to our knowledge of planetary orbits.
4. Consider the idea of space travel to other solar systems. How might the principles of planetary motion and gravity apply to spacecraft traveling between stars? What challenges would astronauts face in navigating such journeys?

