

Name \_\_\_\_\_

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

### Short Answer

1. What is the role of gravity in causing planets to orbit the Sun?
2. How does the balance of forces between inertia and gravity allow planets to remain in stable orbits around the Sun?
3. Describe Kepler's Law of Equal Areas and its significance in understanding planetary motion.
4. Explain why planets don't crash into the Sun, even though they are constantly pulled by its gravity.
5. What shape do planetary orbits have according to Kepler's First Law, and how is this different from a perfect circle?

