

Name _____

Why Do Objects of Different Masses Fall at the Same Rate in a Vacuum?

Open-Ended Response Questions

1. If you were to conduct Galileo's experiment on the Moon, which has weaker gravity than Earth, would you expect the results to be the same? Explain.
2. Imagine you have two objects of different masses, one heavy and one light, and you drop them both from the same height on Earth. What will happen to their accelerations and velocities as they fall? Explain.
3. Why is it essential for scientists to understand the concept that objects of different masses fall at the same rate in a vacuum when conducting experiments in space or on celestial bodies with different gravitational strengths?
4. Can you think of any real-life applications where the concept of objects falling at the same rate in a vacuum is relevant or has practical implications?

