

Name _____

Comets: Mysterious Wanderers of the Night Sky

Open-Ended Response Answer Key

1. Answers will vary but may include steps such as analyzing the comet's spectrum, collecting samples, monitoring its behavior as it approaches the Sun, and studying the composition of its nucleus and tail.
2. Answers will vary, but students may mention comets' historical association with significant events or their role in inspiring myths and stories.
3. Students may highlight differences such as composition (comets have more ice), appearance (comets have tails), and origin (asteroids are found mainly in the asteroid belt, while comets come from the Kuiper Belt and Oort Cloud).
4. Answers may include tracking its trajectory, assessing potential impact risks, and planning missions to study and, if necessary, mitigate any potential threats posed by the comet.

