

Name _____

Exploring the Mysteries of Meteors and Meteor Showers

Open-Ended Response Answer Key

1. Answers may vary but could include setting up a dark observing location, using a notebook to record observations, noting the time and direction of meteor sightings, and reporting findings to a relevant organization or community.
2. The answer may vary depending on the chosen meteor shower. For example, the Geminid meteor shower is associated with the asteroid 3200 Phaethon and is best observed in mid-December.
3. Speculative answers may include the possibility of a recently disrupted comet, an encounter with a distant asteroid, or an unusual meteoroid stream. Further study could involve analyzing the composition and origin of the meteoroids.
4. Satellite and spacecraft observations can provide data on meteoroid streams, their density, size distribution, and potential threats. This information can be used to develop strategies for planetary defense and assess the risk of impact events.

