Name _____

Shooting Stars vs. Meteors: Unraveling the Cosmic Confusion

Short Answer Key

1. A meteoroid begins as a small fragment of rock, dust, or metal from various sources in the solar system. When it enters Earth's atmosphere, it heats up due to air resistance, creating a luminous trail known as a meteor or shooting star.
2. Meteorites are surviving fragments of meteoroids that land on Earth's surface, while meteoroids are the precursors to meteors. Scientists can study meteorites to gain insights into the composition and history of celestial bodies.
3. Possible sources of meteoroids include comets, asteroids, and remnants of celestial bodies like the Moon and Mars.
4. The term "shooting star" is considered a misnomer because shooting stars are not stars but meteoroids that burn up in Earth's atmosphere.
5. Answers may vary. Example: "Meteors can vary in color due to the composition of the meteoroid. For instance, green meteors are often caused by the ionization of oxygen molecules in the atmosphere."