

Name _____

Exploring the Cosmic Ingredients: The Composition of Comets

Short Answer Key

1. Organic compounds in comets are significant because they contain carbon-based molecules like amino acids and hydrocarbons, raising questions about the delivery of prebiotic molecules to Earth and the potential for life's emergence.
2. As comets approach the Sun, their ices vaporize, creating a glowing coma and tails due to the outgassing process.
3. The solar wind interacts with comets by pushing gas and dust away from the Sun, forming the tails of comets.
4. Comets are valuable for studying the early solar system because they contain materials from its formation, providing insights into its composition and conditions.
5. Dust and rocky materials in a comet's composition are remnants from the formation of the solar system, offering clues about its early stages.

