

Sequence the Celestial Events

Mission Background: Dr. Celia Nova is running a simulation to test how well students can follow the chain of cosmic events related to **meteors, comets, and their activity in space**. Unfortunately, her computer scrambled the log entries! Your job is to help her **reconstruct the correct sequence** for each of the two event chains.

Part 1: From Meteoroid to Meteorite

Below are six scrambled stages describing how a piece of space debris travels from outer space to Earth. Read them carefully, then number the steps **1–6** in the correct order.

Scrambled Events (Lettered for clarity):

- _____ A. The space object heats up as it passes through Earth's atmosphere, creating a bright streak of light.
- _____ B. The object, now called a meteor, burns brightly in the sky.
- _____ C. A small space rock or metal fragment floats freely in space-this is called a meteoroid.
- _____ D. If the meteor doesn't completely burn up, the remaining piece lands on Earth's surface.
- _____ E. This surviving piece is now called a meteorite.
- _____ F. The meteoroid is pulled into Earth's atmosphere by gravity.

Part 2: How a Comet's Tail Forms

The following steps explain what happens when a comet approaches the Sun. They're out of order! Help fix the timeline by placing the events in the correct sequence **1–5**.

Scrambled Events (Lettered for clarity):

- _____ A. The solar wind pushes gas and dust away from the comet.
- _____ B. The Sun's heat causes the comet's icy surface to vaporize.
- _____ C. A comet from the outer solar system travels closer to the Sun.
- _____ D. A glowing cloud called a coma forms around the nucleus.
- _____ E. A long tail stretches out behind the comet, always pointing away from the Sun.