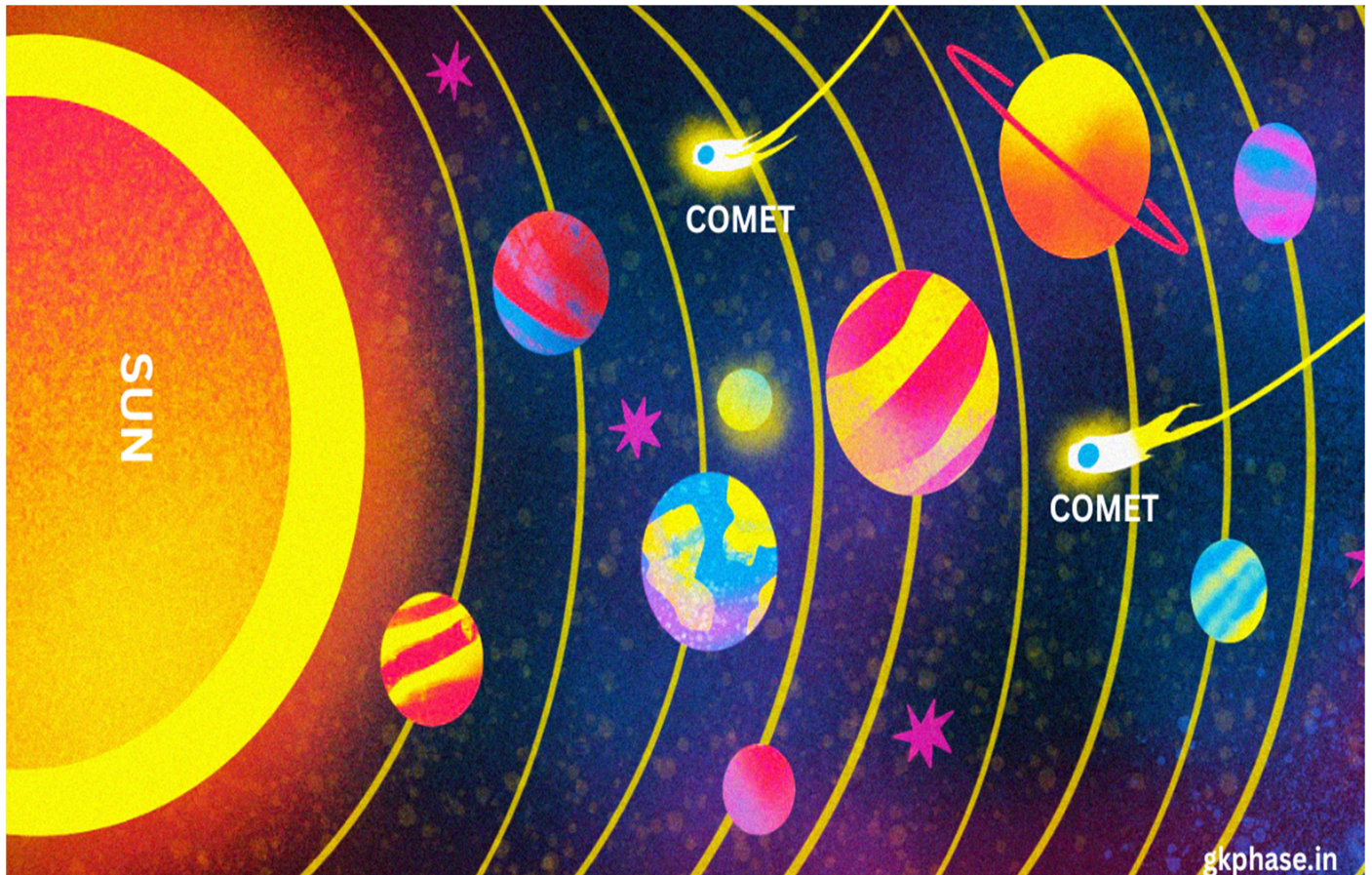


# COMPONENTS OF SOLAR SYSTEM

## COMET



Comets are like icy space snowballs that travel around the Sun in long, elliptical orbits. They are made of ice, dust, rock, and organic compounds. When a comet gets close to the Sun, the heat causes the ice to vaporize, creating a bright glowing tail that can stretch for millions of kilometers. This tail always points away from the Sun because of the solar wind. Comets are sometimes called "dirty snowballs" because of their composition. They are ancient remnants from the early days of the solar system and carry important clues about its formation.

## FACTS ABOUT COMETS



- 1. Icy Bodies:** Comets are made up of ice, dust, rock, and organic compounds.
- 2. Orbital Paths:** Comets travel around the Sun in long, elliptical orbits. They come from two main regions: the Kuiper Belt and the Oort Cloud, which are located far beyond the orbit of Neptune.
- 3. Glowing Tails:** When comets get close to the Sun, they heat up, and their icy surfaces start to vaporize, releasing gas and dust. This creates a bright glowing tail that can stretch for millions of kilometers.
- 4. Solar Wind Interaction:** The solar wind, a stream of charged particles emitted by the Sun, pushes the comet's tail away from the Sun. This causes the tail to always point away from the Sun, regardless of the comet's direction of travel.
- 5. Comet Nucleus:** At the center of a comet is its nucleus, which is made up of ice and rock. The nucleus is typically only a few kilometers in diameter.
- 6. Visible Appearance:** Comets can sometimes be seen from Earth with the naked eye, appearing as bright, fuzzy objects in the night sky. Some comets become so bright that they are visible during the daytime.
- 7. Ancient Relics:** Comets are thought to be ancient relics from the early days of the solar system, containing material that has remained relatively unchanged for billions of years. Studying comets can help scientists learn more about the formation and evolution of the solar system.