



Geminid Meteor Shower

Published On: 15-12-2025



Context?

- The **Geminid meteor shower** is considered the **brightest and most reliable annual meteor shower**. Visible **globally**, it peaks in **mid-December**, offering spectacular night-sky displays.

Key Features

1. Active Period

- Begins: Early December
- Ends: Mid-December
- Peak: **13–14 December**

1. Radiant Point

- The meteors appear to emanate from the **constellation Gemini**, near the star **Castor**.
- This gives the shower its name: "**Geminids**".

1. Parent Body: 3200 Phaethon

- Unusual origin: Unlike most meteor showers originating from **icy comets**, the Geminids come from a **rocky asteroid**.
- Often called a "**Rock Comet**": Phaethon sheds material due to **thermal fracturing** when it passes close to the Sun.

1. Meteor Characteristics

- Bright and fast-moving meteors
- Yellowish color
- Peak rates: **~120 meteors per hour** during optimal viewing

Scientific Understanding of Meteors

- **Meteor:** The streak of light seen when a **meteoroid** enters Earth's atmosphere and burns due to friction.
- **Meteoroid:** Space rock ranging from **dust grains to small asteroids**.

Kamaraj IAS Academy

Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Phone: **044 4353 9988 / 98403 94477** / Whatsapp : **09710729833**

- **Meteorite:** A meteoroid that **survives atmospheric entry** and reaches the Earth's surface.