Comet 10P/Tempel 2 - Appearance in Bengaluru sky

Prelims: *Current events of national and international importance | Government policies and interventions*

Why in News?

- It was last visible from Earth five-and-a-half years ago.
- It was discovered in the year 1873.
- It completes one orbit around the Sun every 5.5 years. Its last sighting was in 2021.
- Comet 10P/Tempel 2 is a periodic comet.
- Although it returns every 5.5 years, it is not always easily visible from Earth.
- Its visibility depends on how close it comes to Earth during that return, and its position relative to the Sun in our sky.
- Depending on how bright it becomes during that apparition, some returns are excellent, while others are much less favourable.
- When the comet is closest to the Sun, the Sun’s heat causes more ice to

vaporise.
- This creates the comet’s coma (the fuzzy cloud around the nucleus) and tail, making it brighter and easier to observe.
- It is best to observe the comet from a dark location away from city lights on a clear, moonless night.

Asteroids, Comets, Meteors & Meteoroids: What's the difference?
Asteroids, comets and the meteors that sometimes come from them are leftovers from the formation of our Solar System 4.6 billion years ago.
Meteoroid:
much smaller rocks or particles in orbit around the Sun.
Meteor:
If a meteoroid enters the Earth's atmosphere and vaporizes, it becomes a meteor, which is often called a shooting star.
Meteorite:
If a small asteroid or large meteoroid survives its fiery passage through the Earth's atmosphere and lands on Earth's surface, it is then called a meteorite.
Asteroid:
These rocky fragments are leftovers from the beginning of our solar system.
Comets:
Cosmic snowballs of gas and dust that make sweeping orbits around our sun.
NASA
estimates there are currently 839,880 known asteroids and 3,596 known comets.

Reference

[The Hindu | Comet 10P/Tempel 2]