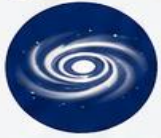


SOLAR SYSTEM & PLANETS

NCERT + BIHAR SCERT | QUICK REVISION NOTES



1 SOLAR SYSTEM



Universe: All galaxies, stars, planets and celestial matter.



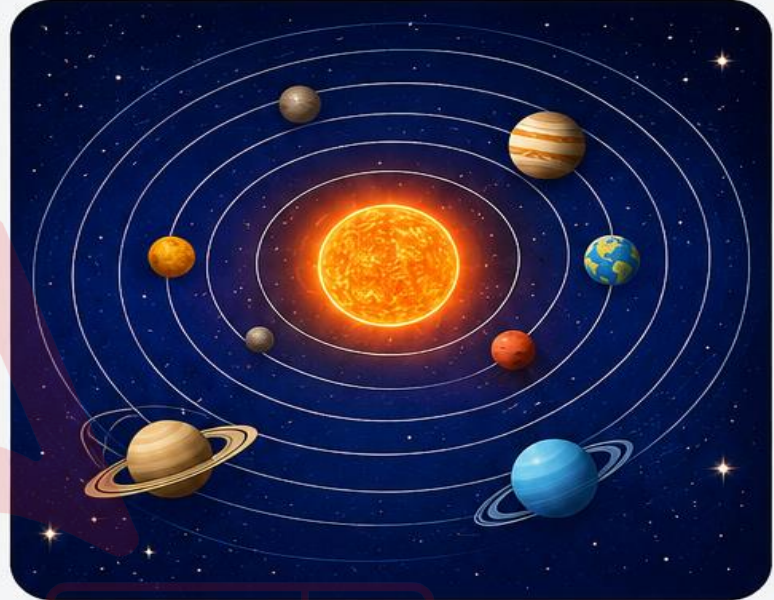
Galaxy: Collection of stars, gas and dust. Our galaxy = **Milky Way**.



Solar System: Sun + 8 planets + satellites + asteroids + comets.



Order: Mercury → Venus → Earth → Mars → Jupiter → Saturn → Uranus → Neptune.



2 SUN & PLANETS



Sun: A star and the nearest star to Earth; source of heat and light.



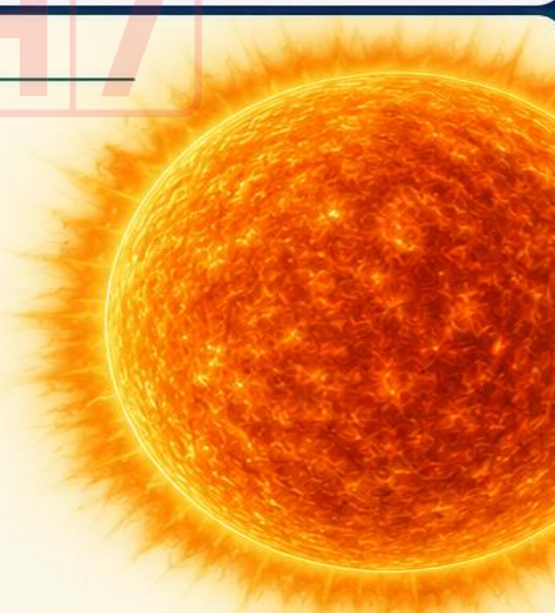
Planet: Nearly spherical body revolving around a star; does not produce its own light.



Inner planets: Mercury, Venus, Earth, Mars — small and rocky.

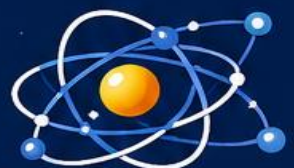


Outer planets: Jupiter, Saturn, Uranus, Neptune — giant planets.



Remember:

The Sun is at the center of our Solar System. Its gravity keeps everything in orbit and maintains the balance of the system.



SATELLITES, ASTEROIDS & COMETS



Natural Satellite: Celestial body revolving around a planet; Earth's Moon is one.



Artificial Satellite: Human-made object used for communication, weather, navigation, mapping & research.



Moon: Earth's natural satellite; orbital period $\approx$ **27 days**.



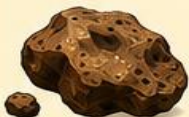
Asteroids: Rocky bodies orbiting the Sun; main **Asteroid Belt** lies between Mars & Jupiter.



Comets: Icy, dusty bodies; develop a **coma and tail** near the Sun. Tail points away from the Sun.



METEOROID → METEOR → METEORITE

TERM	KEY MEANING	
 METEOROID	Small rocky/metallic body in space.	
 METEOR	Glowing streak when a meteoroid enters atmosphere ("shooting star").	
 METEORITE	Part that survives and reaches Earth's surface.	

PLUTO & DWARF PLANETS

- ◆ **Pluto:** Dwarf planet, not one of the 8 planets.
- ◆ **Other major dwarf planets:** Ceres, Eris, Haumea, Makemake.
- ◆ **Key point:** Dwarf planets do not meet all criteria required for full planet classification.



Pluto



Ceres

Eris

Haumea

Makemake

TRADITIONAL INDIAN PLANET NAMES

Planet	Sanskrit Name
 Mercury	Budha
 Venus	Shukra
 Mars	Mangala
 Jupiter	Brihaspati
 Saturn	Shani

INNER vs OUTER PLANETS

Feature	Inner / Terrestrial (rocky)	Outer / Giant (gas/ice)
Planets	Mercury, Venus, Earth, Mars	Jupiter, Saturn, Uranus, Neptune
Location	Before Asteroid Belt	Beyond Asteroid Belt
Nature	Small, rocky, solid	Large gas/ice giants
Moons	Few/none	Many
Rings	Not characteristic	Present

EXAM ONE-LINERS & IMPORTANT POINTS



8 planets revolve around the **Sun**; **Sun** = star; **Moon** = Earth's natural satellite.



Milky Way = our galaxy.



Asteroid Belt = between Mars & Jupiter.



Shooting star = **Meteor**, not a star.



Closest to Sun: Mercury | **Hottest:** Venus.



Pluto: Dwarf planet, not the 9th planet.



Rotation → on its axis → causes day & night.



Revolution → around the Sun → causes year.



Comet tail → generally points away from the Sun.

