

UPSC Civil Services Examination

UPSC Notes [GS-I]

Topic: Earth and the Solar System [Geography Notes for UPSC]

Celestial Bodies

- Celestial bodies are objects like Sun, moon, stars and others that shine in the night sky.
- Some celestial bodies are very big and are made up of gases and heat. They have their own heat and light which is emitted in large amounts. These celestial bodies are called stars and our Sun is a star.
- The sun, the moon and all those shining objects in the night sky are called celestial bodies.

Constellations

- Different groups of stars form various patterns and they are called constellations. Saptarshi is an example of constellations.
- In ancient times, with the help of stars directions were determined during night time. The North Star indicates the north direction (Pole Star) and it remains in the same position in the sky.
- Celestial bodies that do not have their own heat and light and lit by the light of the stars are called planets.

Solar System

- The solar system is made up of the Sun, eight planets, satellites and other celestial bodies.

The Sun

- The sun is in the centre of the solar system.
- It is huge and made up of extremely hot gases.
- It provides the pulling force that binds the solar system.

Planets

- There are eight planets in our solar system.
- In order of their distance from the sun, they are:
 1. Mercury
 2. Venus
 3. Earth
 4. Mars
 5. Jupiter

6. Saturn
7. Uranus and
8. Neptune

Inner Planets

- These planets are very close to the sun.
- They are made up of rocks.
- Inner Planets are:
 - MERCURY- One orbit around sun – 88 days. One spin on axis – 59 days.
 - VENUS – One orbit around sun – 255 days. One spin on axis – 243 days
 - EARTH – One orbit around sun – 365 days. One spin on axis – 1 day Number of moons – 1
 - MARS – One orbit around sun – 687 days One spin on axis – 1 day, number of moons – 02

Outer Planets

- Very-very far from the sun and are huge planets made up of gases and liquids
 - JUPITER – One orbit around sun – 11 years, 11 months about 12 years. One spin on axis – 9 hours, 56 minutes, number of moons – 16
 - SATURN – One orbit around sun – 29 years, 5 months. One spin on axis – 10 hours 40 minutes, number of moons – about 18.
 - URANUS – One orbit around sun – 84 years. One spin around axis – 17 hours 14 minutes, number of moons – about 17.
 - NEPTUNE – One orbit around sun – 164 years. One spin on axis-16 hours 7 minutes, number of moons – 8

Asteroids

- Asteroids are numerous tiny bodies which also move around the Sun apart from the stars, planets and satellites.
- They are found between the orbits of Mars and Jupiter.

Meteoroids

- Meteoroids are small pieces of rocks which move around the sun.