

These Slides Accompany the YouTube Video Tutorial:  
<https://www.youtube.com/watch?v=YnRtKB1FBfs>

# NCERT Class 6 Geography

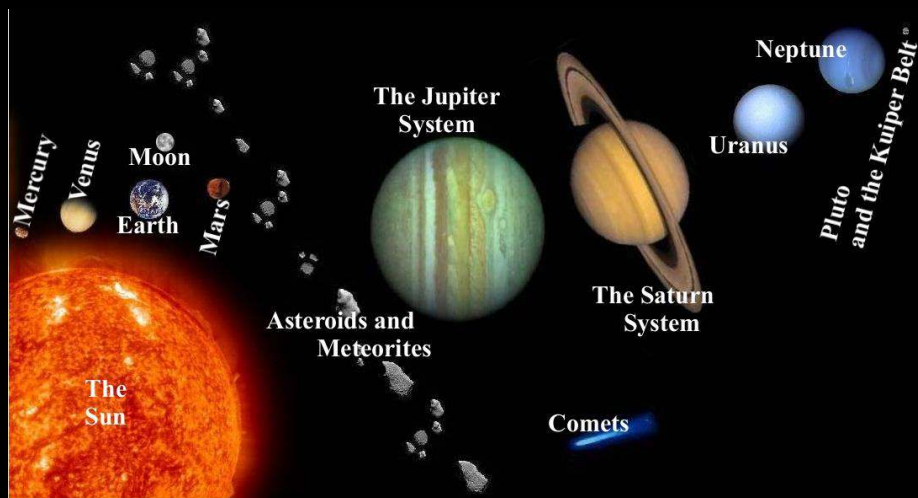
## Chapter 1 : Earth in Solar System

### Galaxy

- Gravitationally bound system of stars, stellar remnants, interstellar gas, dust, and dark matter
- Example, Milky Way (contains Solar System)
- March 2016, Most distant galaxy – GN-z11
- Hubble's Classification
  - Elliptical (E)
  - Spiral (S): Andromeda & Sombrero (unbarred)
  - Lenticular

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## Celestial Bodies (Sun, Moon, Objects in Night Sky)



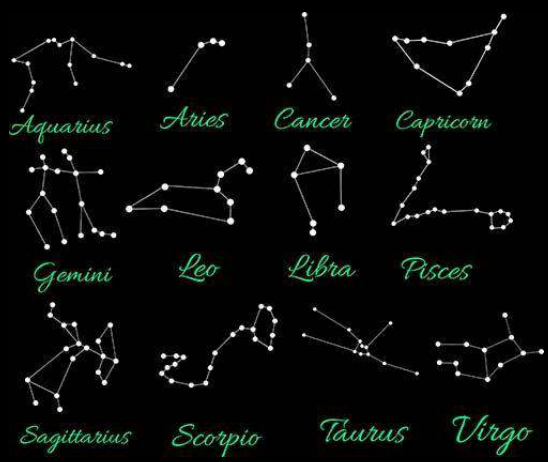
- Celestial Bodies
- Emit their own heat and Light – Star (Example, SUN)
- Don't emit their own light – Planets
- Planets – Greek Word – Planetai i.e. Wanderer
  
- NORTH STAR – POLE STAR – Indicates north Direction

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# Constellations (Group of Stars) – 88 Officially



Ursa Major – Big Dipper  
Tail – Alioth – Brightest in Ursa Major  
Saptarishi Mandal  
  
Polaris – Brightest in Ursa Minor



# Planets

- Mercury
  - Venus
  - Earth
  - Mars
- Terrestrial – Small & Rocky

- Gas
- Jupiter
  - Saturn
- Ice
- Uranus
  - Neptune
- Giant (Jovian) – Large & Low density

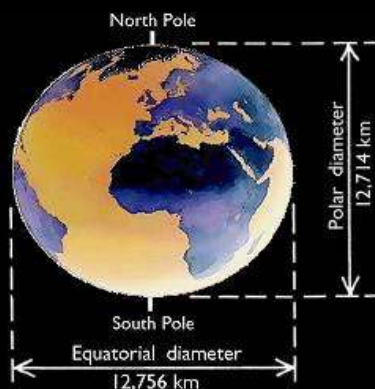
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## Dwarf Planets

- Ceres - largest object in asteroid belt between Mars and Jupiter
- Pluto – Small Size, Offbeat Orbit, Beyond Kuiper Belt, Now Planetoid
- Eris - 2003 UB313 – 10<sup>th</sup> planet & largest dwarf discovered
- Oort Cloud are composed of ices like ammonia, methane & water
- Kuiper Belt – Ice belt beyond Neptune
- Planet Nine in Kuiper Belt is 10 times the mass of Earth and 5,000 times the mass of Pluto.
- Kuiper similar to asteroid belt between Mars and Jupiter

## Earth

- Shape – Geoid or Oblate Spheroid
- 3<sup>rd</sup> nearest to sun
- 5<sup>th</sup> largest planet
- Age: 4.54 billion years old
- Chemical composition of Crust – Silica, alumina, lime
- Earth's mass - Iron (32%), Oxygen (30%), Silicon (15%)
- Earth's Crust – 47% Oxygen
- Rotation & Revolution
- Earth's perihelion (closest) around 3 January & aphelion around 4 July.



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## Moon

- Natural Satellite – Celestial body that moves around planet
- Moon's Diameter –  $1/4^{\text{th}}$  of earth (5<sup>th</sup> largest natural satellite)
- Tides: Gravitational attraction between moon and earth
- Ganymede – Largest moon in Solar System (Jupiter)
- Titan – 2<sup>nd</sup> largest moon in solar system (Saturn)
- Distance from earth: 384,400 km
- Sidereal Month: w.r.t. to distant stars, 1 revolution relative to stars – 27.32 days
- Synodic Month: w.r.t. to Sun, time taken by moon to reach the same visual phase - 29.53 days. Longer period is required to achieve similar alignment of Earth, the Sun, and the Moon.
- Chandrayaan-I and II, TeamIndus (Unmanned spacecraft to moon)

- Asteroids
- Meteoroids
- Comets
- Pulsars