# The Solar System – Summary Notes

## 🌞 The Sun

- The Sun is the closest star to Earth and the main source of light and heat.  
- It is a huge sphere of hot gases, about 100 times wider than Earth.  
- Its energy is essential for life — driving seasons, climate, weather, and the water cycle.  
- The Sun appears larger than other stars because it is much closer.

## 🪐 What is a Planet?

- A planet is a large, nearly spherical object that revolves around the Sun.  
- Earth is one of these planets.  
- Planets rotate on their own axis and revolve around the Sun (1 revolution ≈ 1 year).  
- The distance between Earth and Sun is about 150 million km (1 astronomical unit or AU).

## 🌍 Inner vs Outer Planets

Inner Planets (Rocky & Smaller):

1. Mercury  
2. Venus  
3. Earth  
4. Mars

Outer Planets (Gaseous Giants):

5. Jupiter  
6. Saturn  
7. Uranus  
8. Neptune

## ✨ Special Planet Facts

- Venus: Brightest object after Sun and Moon. Known as Morning/Evening Star.  
- Mars: Called the Red Planet due to its reddish soil.  
- Earth: Appears blue from space due to abundant water.  
- Pluto: Formerly a planet, now a dwarf planet according to IAU.

## 🔭 Observing Planets

- Planets appear as bright dots and do not twinkle like stars.  
- Venus, Mars, Jupiter, and Saturn can be seen with the naked eye.  
- Telescopes or binoculars provide a better view of these planets.