

Formation of the Solar System - October 1, 2008

Outline of Key Concepts:

1. Be able to explain the major differences between terrestrial and Jovian (Gas Giant) planets
 - composition
 - size
 - location in solar system

2. Understand the differences between asteroids & comets (& dwarf planets) and how they relate to solar system formation
 - Compositional difference between asteroids & comets (& dwarf planets)
 - sizes
 - location in solar system
 - why are they interesting??

3. Nebular Theory of Solar System Formation
 - Key observations that must fit model
 - steps in formation from cloud to planets
 - composition of solar nebula
 - Accretion Disk
 - Debris Disk

4. Formation of Planets
 - Role of Accretion & Dust
 - Planetesimals
 - Protoplanets
 - Forces involved in forming the above
 - Role of Temperature in the Early Solar System (& relation to composition)
 - Meaning of Frost line