

Astronomy Unit 4 Concepts and Objectives

Be able to define and explain the following concepts and terms:

Ch. 13: Uranus, Neptune, and Pluto: discovery of Uranus, Voyager 2, discovery of Neptune, physical properties of Uranus and Neptune, atmospheres of Uranus and Neptune, weather, Great Dark Spot, magnetosphere and internal structure, moons of Uranus and Neptune, rings of Uranus, rings of Neptune, discovery of Pluto, physical properties, Charon, origin of Pluto.

Ch. 14: Solar System Debris: asteroids, asteroid belt, Galileo spacecraft, NEAR, Earth-crossing asteroids, Trojan asteroids, Kirkwood gaps, comets, ion tail, dust tails, comet orbits, Kuiper belt, Oort Cloud, Halley's Comet, Giotto, physical properties of comets, KBO, meteoroids, meteors, meteor shower, meteorite, carbonaceous meteorite, Tunguska.

Ch. 15: The Formation of Planetary Systems: extrasolar planets, 10 properties of solar systems, condensation and accretion, planetesimals, fragmentation, core-accretion theory, gravitational instability theory, angular momentum, plutinos, detecting extrasolar planets, transits, extrasolar planet properties, hot Jupiters, Kepler mission.

Ch. 16: The Sun: physical properties, solar atmosphere (photosphere, chromosphere, corona), convection zone, radiation zone, luminosity, nuclear fusion, proton-proton chain, strong nuclear force, deuteron, positron, neutrino, weak nuclear force, isotope, hydrostatic equilibrium, helioseismology, solar granulation, composition of solar atmosphere, solar wind, sunspots, solar cycle, prominence, flares, corona mass ejection, coronal holes, SOHO, solar neutrino problem.