

Review Exam 5

Chapter 14

Vocabulary

Minor planets	Planetoids	Asteroid
Asteroid Belt	C Type	Carbonaceous
S Type	M type	Rubble Pile
Earth-crossing Asteroids	Apollo Asteroids	Aten Asteroids
Amor Asteroids	Potentially Hazardous Asteroids	
Lagrangian Points	Kirkwood Gaps	Nucleus
Coma	Hydrogen Envelope	Tail
Ion Tail	Dust Tail	Long Period Comets
Short Period Comets	Kuiper Belt	Oort Cloud
Meteoroid	Meteorite	Meteoroid swarm
Meteor Showers	Radiant	Trojans

- ÿ Know what the asteroids are called and where most are found
- ÿ Know how the sizes go for the asteroids
- ÿ Know where the first asteroid was found in the solar system
- ÿ Know what the asteroid belt is
- ÿ Know what kept the asteroids from every becoming a larger body
- ÿ Know the different types of the asteroids and which ones are the most abundant
- ÿ Know why Vesta is so unique
- ÿ Know what asteroids we have gone by and studied (3 of them) and why they are special
- ÿ Know what is meant by Earth-crossing asteroids
- ÿ Know what the Apollo, Aten, and Amor asteroids are
- ÿ Know what is meant by potentially hazardous asteroids
- ÿ Know what the Trojan asteroids are and where they are found
- ÿ Know what the Lagrangian point is
- ÿ Know what the Kirkwood gaps are and what causes them
- ÿ Know the structures of a comet: nucleus, coma, hydrogen envelope, tail, ion tail, and dust tail
- ÿ Know which way the tail points all the time
- ÿ Know the difference between short and long period comets and where each comes from
- ÿ Know why Halley's Comet is so important
- ÿ Understand that we have found a number of elements/compounds in comets
- ÿ Know where Pluto and Charon are thought to have come from
- ÿ Know the difference between a meteor, a meteoroid, and a meteorite
- ÿ Know where a meteor shower comes from
- ÿ Know what is meant by the radiant
- ÿ Know why Tunguska, Siberia is an important site
- ÿ Know the ages of most meteorites

Chapter 15

Vocabulary

Extrasolar Planets	Condensation nuclei	Accretion
Planetesimals	Core-accretion Theory	Plutinos
Gravitational Instability Theory		Hot Jupiters

Selection Effect

- ÿ Know what is meant by the term extrasolar planets
- ÿ Understand the 10 properties of our solar system
- ÿ Know that there are irregularities in the solar system
- ÿ Understand how we think the solar system formed (Condensation Theory)
- ÿ Know what planetoids and planetesimals are and how they formed
- ÿ Know why there is a difference in how and why the terrestrial and jovian planets formed
- ÿ Know why we think planets migrated inward
- ÿ Know why the asteroids are found where they are now
- ÿ Know where the icy bodies of the solar system were flung by Uranus and Neptune
- ÿ Know what the plutinos are
- ÿ Know how catastrophes have molded our solar system
- ÿ Know how extrasolar planets are detected
- ÿ Know the 3 characteristics of the extrasolar planets
- ÿ Know what a hot Jupiter is
- ÿ Know what a brown dwarf is
- ÿ Know why we haven't seen an Earth sized extrasolar planet yet
- ÿ Know why these large planets have been found so close to their stars
- ÿ Know what makes finding Earth sized planets so hard

Chapter 16

Vocabulary

Differential rotation	Photosphere	Chromosphere
Transition Zone	Solar Corona	Convective Zone
Radiation Zone	Solar Constant	Luminosity
Nuclear Fusion	Strong Nuclear Force	Deuteron
Deuterium	Heavy Hydrogen	Positron
Neutrino	Weak Nuclear Force	Proton-proton Chain
Hydrostatic Equilibrium	Helioseismology	SOHO
Granulation	Spicules	Solar Wind
Sunspots	Umbra	Penumbra
Polarity	Solar Minimum	Solar Maximum
Solar Cycle	Active Regions	Prominence
Quiescent Prominence	Active Prominence	Flares
Coronal Mass Ejections	Coronal holes	Solar Neutrino Problem

Neutrino Oscillations

- ÿ Have a general knowledge of the size, mass, and density of the Sun
- ÿ Know what is meant by differential rotation and know the rotational period at the equator
- ÿ Know what the photosphere, the chromosphere, and the transition zone are

- ÿ Know what the solar corona is
- ÿ Understand what the convective zone does for the Sun
- ÿ Know what the radiation zone is and where it is found
- ÿ Know what is meant by luminosity
- ÿ Know that nuclear fusion powers the Sun
- ÿ Know what the proton-proton chain is and how it works
- ÿ Know what the strong nuclear force does for the atom
- ÿ Know what the deuteron and deuterium are
- ÿ Know what the positron and neutrino are
- ÿ Know what the weak nuclear force is
- ÿ Know what an isotope is
- ÿ Know how we come up with solar model for the interior
- ÿ Know what is meant by hydrostatic equilibrium
- ÿ Know what helioseismology is and why it is important
- ÿ Know what SOHO is
- ÿ Know what the radiation zone is and what moves through it
- ÿ Know how ht energy reaches the surface from below
- ÿ Know what granulation is and about how big they are on the surface
- ÿ Understand that when you look at the Sun you are looking into different depths of the Sun
- ÿ Know what the Fraunhofer lines are
- ÿ Know what the chromosphere is and why it is red
- ÿ Know wshat a spicule is
- ÿ Know what the corona is and where it is found
- ÿ Understand how we know how hot the corona is
- ÿ Understand how the temperature changes as you move away from the surface of the Sun
- ÿ Know what the solar wind is
- ÿ Know what sunspots are and what causes them
- ÿ Know what the umbra and penumbra are
- ÿ Know whether the sunspots are hotter or cooler than the rest of the Sun
- ÿ Know how much stronger the magnetic field is at the sunspots rather than at the Sun
- ÿ Know what is meant by [polarity
- ÿ Know what the sunspot cycle is and how long it is
- ÿ Know what is meant by solar minimum and maximum
- ÿ Know what the solar cycle is and what happens every 11 years
- ÿ Know what the Maunder Minimum is
- ÿ Know what is meant by active regions
- ÿ Know what a prominence, Quiescent prominence and active prominence are
- ÿ Know what a flare is and how it is different from a prominence
- ÿ Know what is meant by a coronal mass ejection
- ÿ Know what coronal holes are
- ÿ Know what the problem was with neutrinos
- ÿ Understand what neutrino oscillations are

