FINAL EXAM REVIEW – 1st SEMESTER – EARTH SCIENCE

*Instructions: You may bring ONE PAGE (front & back) of notes for each chapter below to use on the Final Exam. Notes must be **handwritten** and stapled to this page. No previous work allowed.*

Vocabulary: Know the vocabulary associated with each chapter. Make sure you have vocabulary definitions included in your one page of notes for each chapter.

*Recommendation: use my website to help you study. Practice with the online worksheets, chapter review questions, and vocabulary lists. The practice tests for each chapter are very good review for each chapter.

Hall's website: www.hall508.weebly.com

Chapter 27 – Stars & Galaxies

1. color & surface temp of stars (see chart page 546)
2. absolute magnitude vs. apparent magnitude
3. light year, red shift, blue shift, Doppler effect of light
4. classification of stars (main-sequence, giant, dwarf, etc.), H-R diagram
5. stellar evolution (birth, life cycle, death of a star)

Chapter 28 – The Sun

1. Layers of the Sun
2. nuclear fusion; hydrogen to helium
3. solar activity (solar flares, prominences, sunspots, sunspot cycle, auroras)

Chapter 29 – The Solar System

1. heliocentric vs geocentric, Copernicus, Aristotle, Ptolemy
2. Kepler's Laws, perihelion, aphelion, AU, $r^3=p^2$
3. Solar System data table
4. characteristics of the inner and outer planets
5. meteoroids, meteors, meteorites (what's the difference?)
6. types of asteroids (stony, stony-iron, iron)
7. Trojan asteroids, earth-grazers

Chapter 30 – The Moon

1. formation of the Moon/giant-impact hypothesis
2. lunar surface features (craters, rilles, maria, anorthosites, regolith, highlands)
3. interior of the Moon (crust, mantle, core)
4. the four stages of the Moon's development
5. why does the same side of the Moon always face Earth?
6. eclipses (lunar eclipse & solar eclipse)
7. phases of the moon (full moon, new moon, waxing, waning, etc.)

Chapter 4 – Plate Tectonics

1. continental drift, Pangaea, Panthalassa, Alfred Wegener
2. evidence of continental drift
3. seafloor spreading, magnetic reversal
4. theory of plate tectonics
5. oceanic crust, continental crust, lithosphere, asthenosphere, tectonic plates
6. divergent, convergent, transform boundaries
7. how does convection cause plate movement?

Chapter 5 – Deformation of the Crust

1. isostasy, isostatic adjustment
2. stress, strain, compression, tension, shearing
3. what tectonic plate boundaries cause the types of stress listed above?
4. anticline, syncline, monocline (know what they look like)
5. faulting (normal fault, reverse fault, thrust fault, strike-slip fault)
6. hanging wall, footwall
7. San Andreas Fault

Chapter 6 - Earthquakes

1. earthquake, epicenter, focus, aftershocks, elastic rebound
2. types of seismic waves (P waves, S waves, surface waves)
3. measuring earthquakes (Mercalli scale, Richter scale, magnitude, intensity)
4. locating earthquakes
5. tsunamis, seismic gaps, predicting earthquakes, earthquake safety

Chapter 7 - Volcanoes

1. volcanism, how magma forms, why does it rise?
2. hot spots
3. types of volcanoes, types of lava, volcanic rock fragments
4. predicting volcanic eruptions
5. extraterrestrial volcanism, Io, Mars, the Moon

Please make sure to follow Final Exam procedures.

- **All school rules apply**
- **All I-Pods, MP3 Players, Digital Cameras and other various electronic devices will be confiscated.**
- **Dress code will be strictly enforced.**
- **Passes are to be given to students during finals only in the case of an emergency. Meaning, no potty passes.**
- **NO BACKPACKS or LARGE BAGS on campus.**

Wednesday 1/16/13

Period	Start	End
First Bell	7:57	8:05
Period 1 Final	8:05	9:19
Period 3 Final	9:27	10:41
Period 5 Final	10:49	12:05

Thursday 1/17/13

Period	Start	End
First Bell	7:57	8:05
Period 2 Final	8:05	9:19
Period 4 Final	9:27	10:41
Period 6 Final	10:49	12:05