

Study Guide
Unit VIII – Astronomy

The unit test may include anything that was done during the unit, including labs, homework, and class discussion. The following is a non-inclusive list of items that may be on the unit test.

Concept mastery: You should be able to:

1. Describe and apply Johannes Keppler's three Laws of Planetary Motion.
2. Use and explain the H-R Diagram and the four groupings.
3. Describe what is electromagnetic radiation and the order of the EM spectrum with the relative sizes of their wavelengths.
4. Describe the three ways astronomers use EM.
5. Know the eight phases of the moon and the cause of the phases.
6. Be able to explain the Sun-Earth-Moon system, it's effects on tides, eclipses, moon phases, solar winds, and more.
7. Describe and explain the tides, including Spring and Neap tides, and the conditions that cause them.
8. Given sample graphs, use a spectrum graph to determine the composition of a light source.
9. Be able to explain the Doppler Effect and determine the direction of change that a wave will appear to an observer.
10. List the order of the planets in our solar system.
11. Roughly know the relative distance between the planets.
12. Describe the major differences between the two types of planets.
13. *optional* - Be able to locate Polaris from the big dipper using the pointer stars.

Terms: Define or describe the meaning of the following terms.

Keppler, Brahe, pointer stars, Polaris, rotation, revolution, spring/neap tides, full/crescent/gibbous, new moons, waxing, waning, electromagnetic radiation, spectrum/spectra, spectroscope, intensity/brightness, apparent magnitude, absolute magnitude, Doppler Effect, light year, parsec, speed of light, H-R Diagram, Main Sequence, Red Giants, Super Giants, White Dwarfs, Sun, Mercury, Venus, Earth, Mars, Asteroid Belt, Jupiter, Saturn, Uranus, Neptune, Pluto, stony planets, gaseous planets, parallax, celestial sphere.

Study Materials: Use the following to help you study.

SNs, Notes, Worksheets, Labs, Textbook, Homework.

Items to Bring to the Test: You should have the following items on the test day.

Pencil

Eraser and/or whiteout

Blank piece of paper

Calculator

Homework packet stapled together with first assignment on top

Textbook (This is a must, so you can determine if you have your assigned book)