Chapter 31 Study Guide

Prior to lecture:

1. Read Ch. 31 in textbook
2. Work through example problem 31.1 and 31.4.
3. Read the "Things Great and Small" on pages 1139. In your own words, explain why the Earth's interior is so hot.
4. Answer conceptual questions 1, 7, 12, and 15 of the text.
5. Define the following terms:
    a. Nuclear radioactivity
    b. Alpha, Beta and Gamma particle
    c. Ionization
    d. Range of nuclear radiation
    e. Radiation detectors
    f. Atomic number
    g. Mass number
    h. Radius of nucleus
    i. Magic numbers
    j. Alpha decay
    k. Beta decay
    l. Gamma decay
    m. Half-life
    n. Radioactive dating
    o. Binding energy of nuclei
    p. Quantum tunneling

After the lecture

1. Review notes from lecture.
2. Redo all example problems from lecture.
3. Reread text
4. Work through example problem 31.2, 31.6, and 31.7.
5. Redo all recitation worksheet problems
6. Answer conceptual questions 2, 4, 11, and 25 of the text.
7. Complete homework for chapter 31
8. For extra practice, try the following problems from chapter 31 of the textbook: 1, 7, 8, 13, 16, 19, 21, 24, 25, 29, 30, 32, 36, 38, 39, 44, 46, 49 and 60.