Chem 155 Post Snow Homework #3 Due Mon Jan 30 at the start of class
Note: Additional problems MAY be posted on the discussion board please consult online after 1/27/2012

Reading: All of Chapter 12, Begin 13

Textbook Problems:

12.2
12.6
12.13
12.16
12.20
12.26
12.29
12.37
12.42
12.49
12.52

Additional Problems:
1) Use a calculation to estimate the mass of coal that must be burned to charge a 3.7 V 1500 mAh iPhone battery assuming the electricity is generated from a coal-fired power plant. You'll need to look up (or make reasonable estimates) of the other numbers needed in this problem. To get a more accurate answer you may need to consider are efficiency of the power plant at converting heat into electricity, the efficiency of electrical transmission from the plant to your home, and the efficiency of the charger at converting AC back to DC to charge your iPhone. You can either assume coal is 100% carbon (although it actually varies from 30-98% C by weight) and use the data in table 7.3 or look up the energy density of coal (both should give you about the same answer).