Directions: Copy/paste questions and highlight. Answer each question completely. Show all work for question #3. Helpful links have been provided below questions. Graph and questions are due Wednesday, February 29, 2012 (Leap Day) at the beginning of class. You will also submit questions/answers to turnitin.com.
Graph is 10 points, questions 30 points for a total 40 point assignment)

1. How do your plots reflect the history of fuel use in the world? (2 points)

2. Look at the plot for per capita data. What do the data points imply? Why does the shape of this plotted data look the way it does? (2 points)

3. Suppose the total mass of the Earth's atmosphere is about 5.1×10^{18} kg and is about 0.037% CO_2. What was the percent increase in CO_2 as a *result of the 2000 emissions*? Show all your calculations and work. Refer to your graph for 2000 emissions! (4 points)

4a. Identify and describe 2 of the major carbon dioxide sinks in the world. (4 points)
b. Describe how humans may be interfering with or inhibiting the sinks. (2 points)
c. What is meant by anthropogenic sources of carbon? (2 points)

5a. **Identify** and **describe** two other greenhouse gases and how humans add them to the atmosphere. (4 points)
b. What are their effects on the ability of the atmosphere to hold heat? Be specific. (2 points)
c. How have the gas concentrations varied over time? (2 points)

6a Describe how temperature has varied with the increase in global carbon dioxide levels. (3 points)
b. Do you think the data show a direct cause and effect relationship? Why or why not? (3 points)

Helpful Links:
http://www.au.af.mil/au/awc/awcgate/cia/globaltrends2015/375950.gif

http://www.newscientist.com/data/images/archive/2604/26041103.jpg

http://www.global-greenhouse-warming.com/images/CarboncCycleDiagram.jpg

http://www.int-res.com/articles/cr/18/c018p259.pdf

http://oto2.wustl.edu/bbears/trajcom/carbon3.htm

http://www.dnrec.delaware.gov/Documents/2a1a16a18f3e4ffbb31695d5d0d6d5d0CCMaingreenhousegases2.JPG

http://www.koshland-science-museum.org/exhibitgcc/images/causes02.jpg

http://www.pewclimate.org/docUploads/images/co2-and-temp-trends_013007_092528.gif

http://www.climatechoices.org.uk/images/globalTempCO2.gif