Hello! I hope that you have an enjoyable, exciting, and educational summer! Here are some activities that you need to do this summer to prepare for Advance Placement Environmental Science in the fall. The objective of this summer assignment is to get you thinking environmentally and to refresh some math skills. Please note that this assignment will be collected for a grade at the end of the first week of school. Please also note that it is strongly suggested that all written work in our class be printed on recycled paper (ie., your 10th grade Spanish homework is on the back) or double-sided using the smallest practical margins and font size no larger than 12 point using Century Gothic font (can you explain why we are using that font?)

Have fun this summer and please check out the class websites as the new school year approaches.

Mr. Hutchings

1. Read the essay “Tragedy of the Commons” by Garrett Hardin. Here is a link: http://www.garretthardinsociety.org/articles/art_tragedy_of_the_commons.html
When you have completed the reading, please respond to the following in complete sentences:
   a. What is Garrett Hardin’s central idea in this essay?
   b. Do you personally agree with Hardin’s central idea?
   c. Is the “Tragedy of the Commons” unavoidable?
   d. Identify one “commons” in your own life (at school, home, work) and explain how it is (or is not) being managed wisely to avoid the situation described in the essay.

2. Math Assignment. Please complete the following problems, showing all work and units.
   a. How many square centimeters are there in a square meter?
   b. How many square inches are there in a square meter?
   c. You may someday purchase a house that has 2500 square feet of living space. How many square meters of living space is this?
   d. If a calorie is equivalent to 4.184 joules, how many joules are contained in that 200 kilocalorie slice of pizza?
   e. If a city of 10,000 experiences 100 births, 30 deaths, 10 immigrants, and 20 emigrants in the course of a year, what is its net annual percentage growth rate?
3. Fruits and Vegetables on the Move! At some point over the summer, look around your house and identify a piece of fruit or vegetable that has travelled to be a part of your diet. Usually there is a sticker on the item telling you its country of origin – or you could go to a food store and browse. (hint: do not use the tomato you picked out of the garden that morning) For the item you select:
   a. Record date, item, and its country of origin
   b. Use internet resources or other sources to estimate the distance from where the item was grown to your home. Do the best estimate you can – obviously it is difficult/impossible to tell where in Mexico that cantaloupe came from...
   c. List the most likely modes of transportation (hint: there are probably more than one of them) used to move that item from the field where it was growing to your kitchen.
   d. Respond to the following in a paragraph or two:
      What are the environmental impacts of shipping fresh produce over long distances? What are the health benefits/health costs of having a wide variety of fresh produce available at all times? Is it “worth it”?

4. Read the book No Impact Man.
   - Write down any vocabulary and/or information that is related to environmental science and define (10 Term Minimum)
   - Describe any questions you may have as a result of your reading (5 Questions Minimum)
   - Describe your opinion of the reading – positive/negative/neutral. Reference items in the book to support your thoughts. (Minimum 2 paragraphs)
   - Relate what you have learned to your personal life – how does it affect/impact you? How does it fit into an APES course? (Minimum 1 paragraph)
   - Condense the overall, take home message of the book into a Bumper Sticker slogan. Design & draw your bumper sticker. Then justify and defend your analysis (Minimum 1 paragraph)

This work is due at the beginning of the first day of class and will be tested on at that time as well.