Extra Credit (2% maximum)

2nd Marking Period – D.E. General Chemistry I

Chapters 3,4,8,6 - (Ionic and Covalent Bonding, Intermolecular Forces, Gases, Solids/Liquids, Stoichiometry)

**Due Date: Tuesday January 19, 2015**

You may do any combination of reports and posters, with a maximum of 2% extra credit added to your marking period grade. The percentage given is the MAXIMUM that will be granted per project. **You are not guaranteed the full credit** if the report or poster is poorly done.

1.0% for an “informative” poster **DUE by 3:00 PM**

1% for a 400+ word report based on one of the prompts below. – **EMAIL BY 11:59 PM – NO HARDCOPIES**

2% for a 1000+ word report based on one of the prompts below. – **EMAIL BY 11:59 PM – NO HARDCOPIES**

**DO NOT turn in hardcopies of reports My email is [jpalmer@methacton.org](mailto:jpalmer@methacton.org)**

**Extra Credit will ONLY be accepted if you have turned in all assignments this marking period. If you have any “NTI” (“not turned in”) designations in your MP2 grade sheet and want to do extra credit, you will need to complete and turn in the missing assignments (for no grade) before I will accept your extra credit.**

1. Search the World Wide Web for chemistry websites that include INTERACITVE **tutorials**. It must respond in some way to your inputs. Choose two of the topics listed above, and compare and contrast the effectiveness of each of the web sites (minimum 3 sites) in helping you to understand or review the topic. Of course, list the URLs of the websites in your report.

2. Create a neat, informative, FULL-SIZED poster that includes **useful information** that could be used by students in General Chemistry I. The information must be from this marking period’s topics (see top of handout… front side) You may not mimic a poster that is already displayed in my room. It must be **EASILY READ by anyone in the back row of desks** if the poster was put above my whiteboard. **I’m going to be very stingy with extra credit on these posters… it must be VERY well done or you will get very little extra credit.**

3. This marking period we studied the topics listed at the beginning of this handout. Write a short, creative story that “brings to life” any of the topics studied this marking period. Be as creative as you want, but make sure that the chemistry involved is depicted in some way.

**Written Reports**

If you choose the “Report” option, then write a report (or two) based on the prompts below. But first, a word from our sponsor:

**Report Criteria:**

1. **All information that is not “common knowledge” must be cited… “style” is not important as long as I know where each piece of information in your report originated.**
2. **Do not simply copy large sections of information directly from sources... that is plagiarism, even if you cite it. You must paraphrase all information, other than the RARE case when a short direct quote is appropriate.**
3. **Email your reports to boutland@methacton.org by 11:59 PM on the due date… no hardcopies.**
4. **Please include an active link in your Works Cited page to any website referenced. This makes it very easy for me to check to make sure that you paraphrased and did not “copy and paste” your report.**
5. **Anyone submitting reports with a lot of “cutting and pasting” and/or no “Works Cited” page will receive zero extra credit for the report, and will not be eligible for extra credit next marking period.**

4. Scuba and deep sea divers need to understand the gas laws. Research and report (in your own words!) the effects of temperature and pressure on divers.

5. Write a report that explains (in your own words!) the science behind hot air balloons. Include information on how these balloons provide lift, and how much they can lift.

6. In the molecular shapes chapter (ch. 8) you learned about polar and nonpolar molecules, including the fact that nonpolar and polar substances don’t mix well. Write a report about 2 substances that have both polar and nonpolar portions of their molecules: phospholipids (found in the membranes of cells) and soaps. Include details about their molecular structure, their “dual” polar/nonpolar nature and how this dual nature helps them do what they do.

7. The value for Avogadro’s number (6.02 x 1023) has been determined over the years more and more accurately. Write a report on the **methods used** to determine this value… both in the past and currently. The report MUST be written in common language to prove that you understand what you have written. Include the current accepted value of this number including all known significant digits. The report must also include a paragraph describing who Amadeo Avogadro was, and why he was given the honor of having this number named after him.