

Hanover Park Regional High School District
Whippany Park High School
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Whippany, NJ 07981

Office of the Principal
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June 2011

Dear AP Chemistry Student and Parent,

Please accept this letter as notification to each family regarding what will be expected of your son/daughter over the summer. It has become necessary to implement a summer assignment to fully prepare your child for the Advanced Placement Chemistry Exam that will be administered on Monday, May 7, 2012.

The A.P. exam is a highly rigorous exam that covers all of the material that would be covered in a first year college chemistry course. It is designed for the student who is intending to major in a science in college or is highly motivated to accept the challenge of a college course at the high school level. The course represents a summation of college surveys from around the nation. These surveys have been used to design a course of study equivalent to the average first-year college course.

Due to the approach handed down by the colleges, each student will receive a text book, a list of three chapters with assigned problems and a cumulative assessment. The assigned problems and cumulative assessment must be mailed or delivered to the school's central office by a designated date in August. This will allow me the opportunity to evaluate the problem sets and focus the first week of school on any major weaknesses encountered. At the end of the first full week, students will take a unit test on the three assigned chapters. The cumulative assessment will allow me to plan the year accordingly so that we may focus on the material that they are most unfamiliar with. It is critical that students become comfortable with this material to succeed.

I look forward to working with both you and your child in this next school year. Please feel free to call the school at 973-887-0300 or email me at dsison@hpreg.org if you have any questions. I will respond as soon as possible.

Sincerely,

Daphne Sison

A.P. Chemistry Teacher

Advanced Placement Chemistry Summer Assignment

Due Wednesday, August 24, 2011

The chapters to be outlined over the summer include Chapter 1 (Matter and Measurement), Chapter 2 (Atoms, Molecules, and Ions), and Chapter 3 (Stoichiometry). Each chapter should be read **at least twice**. Complete the assigned problems thoroughly showing all work when possible. We will discuss these problems sets and quickly summarize the main concepts during the first week of school. A unit test will follow.

Chapter 1 (pp. 31-35): 8, 12, 17, 26, 36, 38, 40, 44, 50, 68

Chapter 2 (pp. 66-69): 14, 21, 24, 41, 50, 54, 56, 58, 62, 67, 86

Chapter 3 (pp. 104-109): 10, 14, 18b, 28cd, 40, 44a, 47, 60, 69, 75

In addition to the three chapters a cumulative packet of 60 multiple choice questions must be completed. You will not be tested on the information in this packet. Its purpose is to reinforce information from your previous chemistry class so that you are fully prepared for this course. You should be familiar with these topics from your previous chemistry class. If you are not, then I suggest you spend the summer reviewing these topics.

Due to the fast paced nature of the course you will have to get accustomed to reading and understanding the text book, using other resources, and forming study groups. If you get help with your summer assignment, make sure you understand how to get the answers yourself as you will be the one taking the tests. If you have any concerns or questions, you may email me at dsison@hpreg.org.

The summer assignment is worth 150 points (30% on completion and 70% on accuracy). It must be mailed to the high school, or dropped off personally, at the central office of the high school by the due date above.

In addition to the assigned chapters this summer we will expand and cover the following topics: (the #'s correspond to the multiple choice questions on the cumulative assessment)

- Aqueous Reactions and Solution Stoichiometry (#1-10)
- Thermochemistry: Ch.5&19 (#11-14)
- Electronic Structure of Atoms (#15-23)
- Periodic Properties of the Elements (#24-26)
- Chemical Bonding and Molecular Geometry: Ch.8&9 (#27-34)
- Gases (This chapter will be assigned during winter break) (#35-43)
- Intermolecular Forces, Liquids, and Solids (#44-47)
- Properties of Solutions (#48-51)
- Chemical Kinetics
- Chemical Equilibrium (#58-60)
- Acid-Base Equilibria and Additional Aspects of Aqueous Equilibria: Ch.16&17 (#52-57)
- Electrochemistry
- Organic Chemistry & Nuclear Chemistry (Assigned during Spring Break if necessary)
- Coordination Complexes

Ms. Sison