

2010 QAS SUMMER READING ASSIGNMENTS

Please Note:

All Summer Reading books are easily accessible through www.amazon.com, except where otherwise indicated. ISBNs are provided to help you find the correct edition online – just do a Google search using the number and you’ll find various sources for the books listed here (or use the ISBN to find the books on Amazon).

ENGLISH DEPARTMENT

6th Grade English:

Read the following:

- The Tale of Despereaux: Being the Story of a Mouse, a Princess, Some Soup, and a Spool of Thread, by Kate DiCamillo (**ISBN-10: 0763625299**) **IMPORTANT: please make sure you are purchasing the correct edition – do not buy the “movie tie-in” version, which is abridged and not the complete novel.**

Students should take careful notes on their reading so that they will be ready to work with the book during the first few weeks of school. Also, make sure to answer the following question in your notes:

- Who was your favorite character and why?

7th Grade English:

Read and do the following:

- The Giver, by Lois Lowry (**ISBN-10: 0385732554**)

While reading the book, use a composition book to keep a learning log what you have read. You may write single spaced and use the back of each page in the composition book since we will use the composition book for other activities during the school year. (Your composition book can have color or a design on the cover – doesn’t have to be the traditional black and white)

Each chapter should have a reading log entry that covers:

LEARNING LOG

A. Give this chapter a new title. Consider what has happened and the feelings in the chapter.

B. Setting: Identify the main setting of the chapter.

Time _____

Place _____

C. In one or two sentences, summarize what happens in this chapter.

After you've read the novel, create a three-dimensional model (no bigger than a shoe box) of the community in which Jonas lived. The model should demonstrate your understanding and interpretation of the novel. Take time with this project – it will be graded as a serious assignment along with your learning log.

8th Grade English:

Read the following:

- Having Our Say by Sarah L. Delany and A. Elizabeth Delany, with Amy H. Hearth (ISBN-10: 0385312520)
- The Outsiders, by S.E. Hinton (ISBN-10: 014038572X)

Do the following assignment:

For Having Our Say:

- Having Our Say is broken down into 7 parts. You are to write 7 journal entries on Having Our Say, writing each one after you have finished 1 part of the book. (For example, you will write one after reading Part I, the next after finishing Part II, etc.). The journals should focus on your opinions and reactions to what is going on in Sadie and Bessie's lives. You can talk about how the two women are changing, what surprised or struck you about the story, how your own life might be like their lives in different ways, or anything else you may want to add.
- EACH ENTRY SHOULD BE AT LEAST ONE HALF OF A PAGE, TYPED (meaning about 150 words). All entries must be typed. They will be due the first day back at school and will be graded. Happy reading!

For The Outsiders:

- Type a one page journal entry on The Outsiders. Imagine that you are a critic for an important newspaper and you have to write a book review. You can check newspapers and Amazon.com to understand how to write these reviews. Spend a paragraph (5 or 6 lines ONLY) summarizing the plot (what happened) in the book, and then spend the next few paragraphs discussing which characters were your

favorites and why, which particular scenes jumped out at you as interesting and why, and whether you would recommend the book or not to future readers and why. This journal is not a book report, it is a critical review! It is a chance for you to express what specifically interested you about The Outsiders. Have fun as a critic!

9th Grade Literature & Composition:

Read the following:

- Monster (Walter Dean Myers) (ISBN-10: 0064407314)

Do the following written assignment:

Monster is written in the form of a screenplay. It is about a teenage boy who is on trial for supposedly playing a role in a crime. After completing the book, you are going to write three journal entries from one of two perspectives: either from the perspective of one of Steve's parents OR a member of the jury. You must write from the same perspective for all three entries.

- **Entry #1: Realities of the courtroom** Myers presents the courtroom section of the book with a lot of detail. From either a parent or juror perspective discuss what this character sees happening in the courtroom. Myers also discusses how Steve examines himself in a mirror to try and see what others see. Explain how the parent sees him/herself or how the juror sees him/herself in trying to understand what really happened during the crime.
- **Entry #2: What is the truth?** Myers' challenges each character in the book and the reader to ask – what is the truth? From either a parent or juror perspective discuss what this character sees as the truth by examining the facts that are presented throughout the court case.
- **Entry #3: The aftermath and lasting effects** Look into the future after the verdict is read and the book ends. From either a parent or juror perspective discuss what this character sees as the aftermath and lasting effects of the court case.
 - **If writing from the parent perspective** – How does the opinion of the parent change after this case? Is the parent able to trust Steve? How does the family move forward?
 - **If writing from the juror perspective** – Does the juror feel as though he/she made the right decision? Does the juror ever think about the case and Steven? How does the juror move forward?

Use the information from the book to help your entry remain in character.

RULES:

- Journal entries MUST be typed, double-spaced, using a standard 12-point Times New Roman font with 1" margins
- Each entry must be AT LEAST one full page in length

- Standard rules of grammar and usage must be followed
- You may use first person
- Please proofread and edit your work before submission

10th Grade World Literature:

Read ONE of the following:

This year the 10th grade World Lit class will begin with a look at the future. Both of the novels listed below are about what our world might be like in years or centuries to come. Before selecting one of the novels to read, visit Amazon.com to check them out – one is from a male perspective (Rash) and the other is from a female perspective (The Hunger Games). Think about which one you want to read before you choose. The idea is to pick a novel you will actually LIKE reading!

- The Hunger Games (Suzanne Collins) (ISBN-10: 0439023521) **PLEASE NOTE: The ISBN provided is for the paperback version of this novel, which will be released July 2.**
- Rash (Pete Hautman) (ISBN-10: 0689869045)

Do the following assignment:

After reading your chosen novel, write a 2-page “personal response essay” that sums up your feelings about it. You should support your feelings with textual evidence – that means you should be sure to use (and cite) quotations. Include a properly formatted Works Cited page for any and all sources used, including the primary text. While you are not required to use additional sources, you must cite them if you do. ***This essay is due the first day of class. You will be tested on your novel on the second day of class.***

11th Grade American Literature:

Read the following:

- The Catcher in the Rye, by J.D. Salinger (ISBN-10: 0316769177)

Do the following:

In a 3-page essay, respond to the following prompt:

Critic Maxwell Geismar writes, “*The Catcher in the Rye* protests, to be sure, against both the academic and social conformity of its period. But what does it argue for?”

Write an essay to explain what the book “argues for.” More specifically, what might Salinger have been trying to communicate to his readers through this novel, and how does he do so?

You will need to support your opinion with evidence from the text. Be sure to use (and cite) quotations. Include a properly formatted Works Cited for any and all sources used, including the primary text. While you are not required to use additional sources, you must cite them if you do. ***This essay is due the first day of class.***

Good luck, and feel free to email me with any questions you have over the summer (wmclafferty@gmail.com).

12th Grade – AP Literature:

Read the following:

- The Awakening, by Kate Chopin (**ISBN-10: 055321330X**) ***IMPORTANT: Please use this version of the novel – check the ISBN to be sure it's the correct edition.***
- One Flew Over the Cuckoo's Nest, by Ken Kesey (**ISBN-10: 0141181222**)

Do the following:

Write a 3-4 page **TYPED** essay that responds to the following prompt:

Both Edna Pointellier, in The Awakening, and R. P. McMurphy, in Cuckoo's Nest, find themselves at odds with a society that rejects individuality and demands conformity. Both Edna and Mac have difficulty fitting in to their respective societies, and both are finally forced to choose between resistance and submission to the world in which they live. Write a 3-4 page essay that examines these two characters in relation to their respective societies. What challenges do they face, what choices do they make, and what do their choices reveal about the way both authors view the inevitable human conflict between society and the individual?

Guidelines and Suggestions:

In writing your essay, make sure you have a clearly-defined thesis that reflects your opinion about these two characters. Your thesis is yours alone and will become the force that guides your essay. You will have to take a stand, create an argument, and present evidence (meaning direct quotes from both novels) to support and prove it. The more focused and concise your thesis, the better your essay will be – you can't examine every aspect of these characters in a 3-4 page essay. The challenge is to find an “angle” that reflects your own thinking, construct a focused thesis, and prove it with well-argued supporting paragraphs.

In developing your thesis, you might consider the following (*you are under no obligation, however, to consider ANY of these questions*):

- What points are Chopin and Kesey making through their respective protagonists? Are they saying the same thing, or something very different?
- How do the characters work in both novels? What do they represent? Are both sympathetic characters, or do you admire one but not the other?
- How is “society” defined in these two novels – is it the same, or very different?
- What are these authors saying about the responsibility of the individual to him/herself?
- Think about the endings of both novels – what’s different? What’s similar?
- Think about the final decisions both characters make – the same? Or different?

Remember, you are not writing ANSWERS to a series of questions. You are challenged to come up with a thesis of your own that deals with two specific characters in two specific novels. The questions, above, are listed only to get you thinking, and to encourage you to look closely at both novels as you develop your thesis. You don’t need to deal with every issue mentioned – in fact, it will be impossible to write a 3-4 page essay that covers every aspect of the questions posed. ***Everything will depend on your thesis.***

Questions? Contact Mrs. Cunningham (kacunnin@queenanne.org).

12th Grade – Senior English:

Please read the following:

- Narrative of the Life of Frederick Douglass, an American Slave (ISBN-10: 1-59308-041-7)

Do the following:

Write a 3-4 page essay responding to the following prompt:

Explain Douglass' view on the relationship between education and freedom.
Do you agree or disagree with view? Why?

This essay should be typed, in MLA format, with a correctly formatted Works Cited page. You must include textual evidence (meaning quotes!), with properly formatted internal citations.

Essays are due the first day of class – Monday, August 23.

SOCIAL STUDIES DEPARTMENT

AP Government:

- 1) Access a copy of the Constitution and complete the US Constitution test (see below).
- 2) **Read:** *Founding Brothers: The Revolutionary Generation* Joseph J. Ellis (ISBN: 0375705244)
Students will read the entire book and answer the following short answer questions completely. ***Please type your answers; you are not required to re-type the question.***

Questions on *Founding Brothers*:

1. After fighting a war for independence and against a strong central authority, what was the chief question facing the men responsible for shaping the new American government?
2. What were the advantages enjoyed by the new nation? What were the problems or conditions influencing their decisions?
3. What differences of opinion emerged in the first administration? Over what issues?
4. Who were the leaders of the political factions developing in the United States and what were their respective political agendas?
5. How did a nation founded on the principles of equality and freedom justify the enslavement of Africans in North America?
6. How did Washington's presidency shape the executive branch? Did he set good precedents?
7. Why was the friendship between Jefferson and Adams so central to the development of the United States?

Both assignments are due on the FIRST day of school (Monday, 8/23).

US Constitution Test

You must access a copy of the United States Constitution to answer the following questions.

1. Which of the following is a right guaranteed by the Bill of Rights?
 Public Education Employment Voting Trial by Jury

2. The federal census is taken each five years. ___True ___False
3. If a person is indicted for a crime, name two rights which he has.

4. A US Senator elected at the general election in November takes office the following year on what date? _____
5. A President elected at the general election in November takes office the following year on what date? _____
6. Which definition applies to the word "amendment"?
___ Proposed change, as is a Constitution
___ Making of peace between nations at war
___ A part of the government
7. A person appointed to the US Supreme Court is appointed for a term of _____>
8. When the Constitution was approved by the original colonies how many states had to ratify it in order to be in effect? _____
9. Does enumeration affect the income tax levied on citizens in various states?
(Yes) or (No)
10. Persons opposed to swearing in an oath may say instead: "solemnly _____"
11. To serve as President of the United States, a person must have attained the age of _____.
12. What words are required by law to be on all coins and paper currency of the U.S.?

13. The Supreme Court is the chief lawmaking body of the state. ___True ___False
14. If a law passed by a state is contrary to provisions of the U.S. Constitution, which law prevails?

15. If a vacancy occurs in the US Senate, the state must hold an election, but meanwhile the place may be filled by a temporary appointment made by _____.
16. A US Senator is selected for a term of _____ years.
17. Appropriation of money for the armed services can be only for a period limited to _____ years.
18. The Chief executive and administrative offices make up the _____ branch of government.

19. Who passes laws dealing with piracy?
20. The number of representatives which a state is entitled to have in the House of Representatives is based on _____.
21. The Constitution protects an individual against punishments which are _____ and _____.
22. When a jury has heard and rendered a verdict in a case, and the judgment on the verdict has become final, the defendant cannot again be brought to trial for the same cause. ___True
 ___False
23. Name two level of government which can levy taxes:

24. Communism was the type of government in _____.
25. Cases tried before a court of law are two types, civil and _____.
26. By a majority vote of Congress, the Congress can change provisions of the Constitution of the United States. ___True ___False
27. For security, each state has the right to form a _____.
28. The Electoral College vote for President is counted in the presence of two bodies. Name them.

29. Of the 13 states, the one with the largest representation in the First Congress was _____.
30. If no candidate for President receives a majority of the Electoral College vote, who decides who will become President?
31. Of which branch of Government is the Speaker of the House a part?

32. Capital punishment is the giving of a death sentence. ___True ___False
33. In case the President is unable to perform the duties of his office, who assumes them?

34. Involuntary servitude is permitted in the United States upon conviction of a crime.
 ___True ___False
35. If a state is a party to a case, the Constitution provides that original jurisdiction shall be in the _____.

AP US History:

Packets will be distributed by Mr. Kravetz later this summer. In the interim, students should purchase United States History: Preparing for the Advanced Placement Examination, by John J. Newman and John M. Schmalbach (**ISBN-10:** 1567656609), which is available from the publisher, AMSCO School Publications, or Amazon for about \$17. The packets will include an initial reading assignment from the AMSCO book, additional reading materials, and a series of questions that will guide your reading. Written answers to those questions must be handed in the first day of class and will be graded.

MATH DEPARTMENT

Honors Pre-Calculus (11th and 12th grades):

The following assignments are from the Algebra Review section in Pre-Calculus: A Graphing Approach (2004 edition, Holt, Rinehart & Winston; ISBN 0-03-069608-9). *This is the class text and will be used throughout the school year. New and used copies can be found by searching in Google under the above-listed ISBN. Amazon.com has new and used copies available – please be sure the ISBN is the same, and that the book is the 2004 edition.*

Do the following:

Study examples P.969-972

Do problems P.972-3 #6-8. 35-38, 55-60

Study examples P.973-975

Do problems P.976 #10, 49, 53, 64

Study examples P.978-980

Do problems P.981 #35-37, 50-54, 59, 60

Study examples P. 981-985

Do problems P.986 #21, 22, 40, 54

Study examples P.987-991

Do problems P.991-2 #4, 19, 28, 30

AP Calculus (12th grade):

The following assignments are from the Prerequisite Chapter of Calculus of a Single Variable (Eighth Edition, 2006, ISBN 0-618-50300-5). *This is the class text and will be used throughout the school year. New and used copies can be found by searching in Google under the above-listed ISBN. Amazon.com has new and used copies available – please be sure the ISBN is the same, and that the book is the eighth edition, dated 2006.*

Do the following:

Read pp. 2-7

pp. 8-9

1-4, 17-26, 39-72, 81-86

Read pp. 10-15

pp. 16-17

1-6, 9-17, 23-43, 49-56, 59-64, 69, 70, 78, 79, 83, 84, 97, 98

Read pp. 19-26

pp. 27-30

1-9, 13-36, 47-62, 75-82, 86-88, 93-98

pp. 39-40

1, 2, 5-9, 14

SCIENCE DEPARTMENT

General Chemistry (10th Grade):

Contact Mr. Duan at xduan@queenanne.org for questions during the summer; please be VERY specific about your questions and provide your home phone number if you would like to be spoken to on the phone.

General Guidelines:

- Complete the [worksheet](#) about the top 36 element by using this website <http://www.webelements.com/>
- This work will be collected at the beginning of the 1st Chemistry class of the new school year on August 23; it equals to 2 quiz grades.

Honors Chemistry (10th Grade):

Contact Mr. Duan at xduan@queenanne.org for any questions during the summer; please be VERY specific about your questions and provide your home phone number if you would like to be spoken to on the phone.

General Guideline

- A student MUST purchase a copy of the textbook from the designated bookstore or from the internet to be able to adequately engage in the summer work. [Textbook: Introductory Chemistry – a Foundation, by Steven Zumdahl 6th edition. ISBN – 10: 0618803270 OR ISBN–13: 9780618803279]
- A *Resource Bank* including all the references and guides, and *Worksheet Folder* containing the all exercises will be distributed to the perspective Honors Chemistry students electronically to a students' key drive by Mr. Duan prior to the summer recess. A student registers the course during the summer must email Mr. Duan promptly, so he can email you the work.

Justifications, Goals, and Recommendations

- The summer work is geared to prepare you an adequate and strong start in next year's Honors Chemistry. Engaging in it consistently and seriously will enable you to survive well in upcoming Honors Chemistry and to have a much better chance when competing with many great students outside of Queen Anne School.
- There are two major goals you should bear in your conscious mind when completing the summer work. You want to be able to negotiate with questions both quantitatively and qualitatively, meaning 1/ you should be able to compute and do math with ease, 2/ you should know a lot of facts, patterns and know to apply them skillfully.
- The works assigned SHOULD be completed incrementally (no last week rushing through, please!). You want to dedicate around 1 hour on Chemistry per week. Especially for the memorization parts, you want brush on them regularly through flash cards.
- There are 4 tasks: each is independent of the other.

Assessments & Evaluations

- Summer work will be collected on the first day of school, and it will equal to 4 of your first quarter quiz grades. The degree and quality of completion is the key for the grades you will earn.
- There will be 1 exam in the 3rd week of school, reflecting the materials from fast pacing lectures from the first two weeks, which will mainly tackle the assigned summer materials.

Task One: learn to communicate with Chemistry language like a pro – the Periodic Table of elements and nomenclature of chemical molecules and compounds.

References: The Periodic Table (attached in the folder), Common Molecules & Compounds Sheet (attached in the folder), Web Elements: <http://www.webelements.com/>

Textbook: Chapter 5

Assignments:

- I. Complete the worksheet on the facts of the 1st top 36 element
- II. Complete the worksheet 'Who Am I?' by corresponding the top 36 elements to the clues given. Reference: Web Elements: <http://www.webelements.com/>

Recommendations:

- I <http://www.webelements.com/> The Web Elements site is an amazing source to learn elements, their properties, compounds and usages and more. Explore it a bit and dig out some fun stuff about various elements that your peers do not but are dying to know! Share with them when school starts in the fall.

Task Two: read with reflective thoughts, sum-up with inclusiveness, and write/present with logic and coherency

References: The Periodic Table (attached in the folder), *The Brilliant Light* by Oliver Sacks (attached in the folder), web site – Web Elements: <http://www.webelements.com/>

Textbook: Chapter 4.1, 4.2, 4.3

Assignments:

- I. Read the award winning essay *The Brilliant Light* by Oliver Sacks
- II. Construct a series of tables to
 - a. List all the elements addressed in this essay
 - b. List both the physical properties (such as the melting point) and chemical properties (such as if an element is easy to react or not) of these elements, based both on the paper and on your research online from Web Elements: <http://www.webelements.com/>
 - c. List the usages of these elements, based both on the paper and on your research from Web Elements: <http://www.webelements.com/>
 - d. List all the compounds/molecules and their properties/usages addressed in this essay, with their names and formulas whenever possible
 - e. Identify 30 scientifically relevant words/phrases you are not quite familiar with from this essay
 - 1) List the words/phrase with their dictionary definitions
 - 2) Use these words/phrase by making each into a new sentence relevant to your summer daily life
- III. Write a 2 page single spaced paper and relate it to your NEW realizations in Chemistry after reading the essay and conducting the research. In this paper, you should try to include
 - a. Around 15 facts about elements/molecules/compounds/ions (**bold and underline them**) you have learned and tabulated from assignment II.
 - b. Around 10 scientifically relevant words (**bold and underline them**) you have learned
 - c. Around 2 powerful quotations from the essay
 - d. At least 1 other resource (cite properly)
 - e. Your impending journey of discovery and success in Honors Chemistry class!

Task Three: math preparatory

References: An algebra II book, those around you who are good at math and can help you

Assignments: Complete all the questions in Math Savvy Solver Worksheet.

Recommendations:

- I Equip yourself (a MUST) with a TI-83 or better scientific calculator if you don't have one
- II Play with the calculator to familiarize yourself with all the special operation KEYS required by the worksheet
- III Work on the questions from the different parts in this worksheet simultaneously

Task Four: apply arithmetic and algebra in chemistry through balancing chemical reaction equations

References: Equation balancing guide ONLY (attached in the folder)

Textbook: Chapter 6.1, 6.2

Assignments:

- I Read the Equation Balancing Guide, and reflect on each technique addressed
- II Complete 30 questions in the Equation Balancing Worksheet

Advanced Placement (AP) Chemistry (11th and 12th grades):

Contact Mr. Duan at xduan@queenanne.org for any questions during the summer. Please be VERY specific about your questions; provide your home phone number if you would like to be spoken to on the phone; schedule a meeting at least 3 days in advance if you would like to meet Mr. Duan in person for at least an hour to productively tackle multiple questions from various subtopics.

General Guideline

- A student MUST purchase a copy of the textbook from the designated bookstore or from the internet to be able to adequately engage in the summer work. [Textbook: Chemistry by Raymond Chang, 9th edition. ISBN-10: 0073221031 OR ISBN-13: 978-0073221038]
- A *Resource Bank* including all the references and guides, and *Worksheet Folder* containing the exercises will be distributed to all the prospective AP Chemistry students electronically by Mr. Duan to his/her key drive prior to the summer recess. A student registered later for the course must email Mr. Duan promptly to ask for the work.

Justifications, Goals, and Recommendations

- The summer work is geared to allow you to refresh what you have learned in Honors Chemistry, to further solidify and streamline the materials you know. Engaging in it consistently and seriously will help you to have a mighty start next year, and

therefore enable you to adequately compete with many students out there (around 130,000 to be precise nationwide!) who also will do their summer preparatory work in AP Chemistry and take the College Board AP Exam in May 2011.

- There are two major goals you should OFTEN bear in your conscious mind when completing the summer work. You need to negotiate with questions/topics both quantitatively and qualitatively, meaning 1/ compute and apply math with ease; 2/ know well of a lot of concepts, facts, patterns and apply them with ease. Specifically, there are four themes you need to work on:
 - a. Proficiency (accuracy and quickness) on *preparatory math* – see *Task One*
 - b. Elevated skills in writing a balanced chemical reaction equation, including the *net ionic equation* and *organic equations* under various reaction scenarios, and improved savvy in ‘visualizing’ and interpreting a reaction as if you were conducting it. – see *Task Two*
 - c. Sharpened ability in computing / *quantitative analysis* based on chemical reactions – see *Task Three*
 - d. Insightful understanding of *chemical bonding and molecule geometry* on both inorganic compounds (including polyatomic ions) and organic compounds
- The works assigned will benefit you the most if they can be completed incrementally, instead of through a crush-course. You want to dedicate around 1.5 hours on Chemistry every single week. Especially for the memorization parts, you want brush on them regularly through flash cards.

Due Days & Helps

- You need to submit the answer sheet electronically to Mr. Duan at hailaerouslyness@yahoo.com every 3 weeks for each task on a Saturday; please don't send your work to his QAS email to jam his mail box. The due days are:
 - a. Task One (also including Task Zero): June 26th
 - b. Task Two: July 17^h
 - c. Task Three: August 7th
 - d. Task Four: 1st day of the class
- On the Sunday right after your submitting answers of a specific task, Mr. Duan will send you the KEY electronically with explanations to some popularly buggy and/or representative questions.
- You also may email Mr. Duan about your questions while working on them. Please be VERY specific about what you ask and avoid of being vague. If you need help on the phone, let him know your home phone number. If you need to schedule a meeting to tackle multiple questions from various subtopics all at once, schedule a meeting with him; Mr. Duan usually should be able to meet you within 3 days (He will be teaching a 6 week long summer Chemistry course at St. Albans in DC from mid June to late July.

Assessments & Evaluations

- Each of the 4 task packages is worth the grade of 2 quizzes from the first quarter. The degree of completion, the quality of your work, and timeliness of turning in the work are central to your grade. You DO want to ensure the quality of your work or you will have some huge challenges to deal with the materials next year.
- There will be 2 exams in the first 3 weeks of school next year, coming from the fast-paced lectures and labs and addressing primarily the summer materials, to assess the quality of your summer work and your level of understanding.

Task One: preparatory math with and without a calculator (make sure to browse through the documents in PART ZERO and work on the questions)

Note: This task does not require you to use the official chemistry textbook

Emphases:

- I Know WELL to present your computation answers in adequate *significant figures* (read chapter: 1.8)
- II Know WELL to compute with a scientific calculator TI-83 or better on *various mathematical operations*
- III Know WELL some key *unit conversions* through a single step operation in your calculator
- IV Know WELL to *manipulate* algebraic expression(s) leading eventually to *solve an unknown(s)*.

Assignments: Go to the Part ONE *Math Preparatory* Folder, open the word document of worksheet/guide and follow it through

Total Recommended Time: about 5 hours for a 3 week period – this may vary drastically depending on your proficiency in math.

Task Two: inorganic chemical equation typing, writing, balancing and interpreting

Note: This task requires you to use the chemistry textbook; you, however, can also manage to complete this assignment by **ONLY** using the references provided in the folder

Emphases:

- I Know well the ions and their charges, including the high profile polyatomic ions and their colors [Part TWO A worksheet and B reference]
- II Know well to write a specific type of chemical reaction [Part TWO C guide and work sheet, D KEY for the 7 Practice Sets, textbook nomenclature 2.5, 2.6, 2.7]
- III Know WELL the various *patterns* of different types of reactions [Part TWO E reaction type grand summery]

Assignments: Go to the Part TWO *Nomenclature and Equation Writing* Folder, open the word document A and follow it through

References: embedded in the folder

Total Recommended Time: about 6 hours for a 3 week period.

Task Three: computation Chemistry underlined by mole ICE (Initial, Change, End)

Emphases:

- I Know to *balance* a chemical reaction equation
- II Know to *convert* mass into moles, and vice versa (mole into mass)
- III Know to set up *mole ICE* clearly with adequate spacing and presentation
- IV Know to use mole ICE to answer the subsequent questions based on the mole ICE

References: embedded in the guiding worksheet

Assignments: Go to the Part THREE *Math in Chemistry* Folder, open the word document and follow it through

Total Recommended Time: about 6.5 hours for a 3 week period.

Task Four: molecular geometry for both inorganic and organic compounds & organic nomenclature/ structure

Emphases:

- I Know to present *4 types of electron configurations*: main shell, subshell, noble gas core, orbital & spin (also noble gas core based), for both *elements and ions* (Chapter 7.8)
- II Know to determine the Lewis Dot Structure of an ion and a molecule; and consequently to determine its *related features*: shape, bonding angles, resonance, polarity etc. Electron lone paired should be drawn out in each molecule or ion. (Chapter 9.6, Chapter 10.1)
- III Know well of both *names and structural formulas* of the representative species of the following *12 organic groups*: alkanes, alkenes, alkynes, cycloalkanes, alcohols, aldehydes, carboxylic acids, esters, ketones, ethers, amines, amides. Electron lone paired should be drawn out in each molecule or ion. (Chapter 24)
- IV Know to *draw and deplete* all the possible *structural isomers* of a simple organic compound. (Chapter 24.2)

References:

- I Molecular Geometry Table
- II Common Molecules & their shapes
- III Textbook

Assignments: Go to the *Molecular Geometry & Organic Compounds* Folder, open the word document and follow it through

Total Recommended Time: 6 hours for a 3 week period.

AP Physics (12th grade):

1. Complete the packet of workbook pages. These should look familiar—you did them in 9th grade for Conceptual Physics. This is to reopen the base of physics knowledge you should have stored away in the back of your mind. If you find that this base of knowledge is missing, you should use these worksheets as a guide for what you need to look up (either in your old Conceptual Physics book, your new Physics book, or elsewhere) and figure out before school starts. The worksheets will be collected on the first day of class and counted as a quiz grade.
2. Complete the assigned exercises from the photocopied calculus text. This will require you to:
 - a. Read the particular section
 - b. Work through the example problems in that section, and only then
 - c. Do the assigned exercises

These exercises will be collected on the first day of class and counted as a quiz grade. Additionally, there will be a minor test on the mathematical concepts from these exercises the 2nd week back in the fall.

Both packets can be picked up from Mr. Conn during exam week or from school during the summer months.

FOREIGN LANGUAGE DEPARTMENT

The Foreign Language Department will have no Summer Reading this year.