ROBINSON SECONDARY SUMMER 2019 ASSIGNMENT

IB Chemistry Higher Level

Purpose: Welcome to Higher Level IB Chemistry! The purpose of this assignment is to review material from IB Chemistry 1 until it is mastered. Mastery of the material covered in IB Chemistry I is absolutely essential for success in IB HL Chemistry. I will be available by email to assist you while you review the material from the first year to prepare for an exciting year in HL Chemistry.

Directions:

1. Find your Chemistry notebook from IB Chemistry 1. You will want to use your notes, objectives and resources to help you.
2. Log on to **http://khmclean.wixsite.com/hl-chemistry** and go to HL Chemistry Summer Assignment.
3. The IB Chemistry Textbook used for this assignment is located as its own tab. You will need to complete the following assignments from this IB Chemistry Textbook. Multiple choice questions should be solved with the work shown but may be printed out. You do **NOT** have to copy all of the questions word for word. You **MAY** also print charts and fill in the blanks to help make this assignment easier, but printing is **NOT** required.
    a. Chapter 1 Quantitative Chemistry
        1.2.3 pg 7-8 #1-9 (odd only)
        1.2.4 pg12-13 #11-19 (odd only)
        1.3 pg 14 #5
        1.3.1 pg 17 #4 (a-c), 5(a-c)
        1.4 pg 19-20 #5
        1.4.1 pg 21 #2
        1.4.2 pg 24 #6-8
        1.4.3 pg 26 #6-8
        1.5 pg 29 #7-9
        1.5.1 pg31 #4
    b. Chapter 2 Atomic Structure
        2.1 pg 50-52 #1-12
    c. Chapter 3 Periodicity
        3.1 pg 72 #1-3
        3.2 pg 75 #1-6
    d. Chapter 4 Chemical Bonding
        4.1 pg 101 #1-5
        4.2 pg 106 #1-6, 7 a-d, 8
    e. Chapter 5 Energetics
        5.1 pg 137 #1-5
    f. Chapter 7 Equilibrium
        7.1 pg 183 #1-2
    g. Chapter 8 Acids and Bases
        8.2 pg 212 #1-3
        8.3 pg 214 #1-4
    h. Chapter 11 Measurement and Data
        11.1 pg 298 #1-6

Polyatomic Ions	
Formula	**Name**
$C_2H_3O_2^-$	ethanoate (acetate)
CN^-	cyanide
SCN^-	thiocyanate
$H_2PO_4^-$	dihydrogen phosphate
HCO_3^-	hydrogen carbonate (bicarbonate)
HSO_4^-	hydrogen sulfate (bisulfate)
OH^-	hydroxide
NO_3^-	nitrate
NO_2^-	nitrite
MnO_4^-	permanganate
CO_3^{2-}	carbonate
CrO_4^{2-}	chromate
$Cr_2O_7^{2-}$	dichromate
HPO_4^{2-}	hydrogen phosphate
SO_4^{2-}	sulfate
SO_3^{2-}	sulfite
PO_4^{3-}	phosphate
NH_4^+	ammonium

4. **REVIEW AND MEMORIZE the polyatomic ions listed on this assignment**. They are also posted under course materials on our summer assignment Blackboard site. You should know the name, charge and formula. **Be prepared for a quiz on the polyatomic ions the first day of the second week of class (the specific date will be announced the first day of class).**

5. **SUBMIT A PROPOSAL for your Individual Assessment Investigation Project** (think individual science fair project on a Chemistry topic you could do here at school). Your proposal should include the IV (levels, units and how it will be measured), DV (how it will be measured), hypothesis with explanation and 1 paragraph of background research (with references). Format and form can be found on Summer Assignment WIX site (http://khmclean.wixsite.com/hl-chemistry). **You should submit a proposal for your IA Topic through the WIX site no later than *August 21st*** Please remember this is a proposal to start your thinking about the IA not a final topic or draft – ***I DO NOT*** expect a formal written paper or draft at this time. Please consider scope of project and safety as you are looking at possible ideas. Contact me if you have and questions or concerns.

Assessment, Due Date, and Contact Information: The above book assignment will be **collected during the second week at the beginning of our first class** and will be graded. It will count as a **30 point grade (more than a big lab grade!). The proposal should be submitted by August 21st. You must eventually have an approved topic to proceed with your IA this fall so it helps to start thinking about it now while you have the time.** I can be contacted over the summer by email - khmclean@fcps.edu. Please send me your full name when emailing me with questions.