Summer assignment for 2019-20

All AP Chemistry students for 2019-2020

The end of the school year is rapidly approaching and for you the window to prepare for next fall is closing. You will need to obtain your text "Zumdahl Chemistry (8th ed.)", **terrific** and best wishes with your summer assignment. Remember, the assignment is due the first day of school and we will be beginning day one on our return with a lab. **There will be a help session the week before school starts that is NOT required, but is very helpful**. Look through the obligations you have for the course and your lab partners as detailed in your acceptance packet. We will likely have some food available too☺.

If you have not yet checked out your materials, they must obtained through Mr. O'Connell. Friday, June 7th is the deadline. Please take care of this AS SOON AS POSSIBLE!!!! Please check in with me this week and let me know your status with materials.

You will need to have a laboratory notebook as well. Please see me for the type of notebook to buy. They are very inexpensive.

Thanks and have a great final experience and super summer!!!

"Mr. O"

Mr. Jim O'Connell

AP Chemistry Summer Assignment

These are primarily a review of General Chemistry Concepts

Chapter 1

Read pages 1-30

Answer questions on pages 32-37

Q 17-22

Q 30-36 evens

Q 39,40,42,45,46

Q47,55,58,60

Q 67-73 odd

Q 82

Chapter 2

Read pages 40-68

Answer questions on p. 69-74

Q 16-23, 28, 30

Q 36-56 evens only

Q 63-68 all, 72

Q 76 80 evens

Chapter 3

Read up to page 90

Answer questions on pages 118-121

Q: 10-18 even, 20, 22

Q: 26-30 all, 33, 36-40 evens

Q 47-50

Q 61,62

Memorize the following Information for Class Use

(There will be weekly mini-quizzes over this)

Positive Ions Cations

+1	+2	+3	+4	+5
NH_4	Ba	Al	C	Sb(V)
Cs	Be	Cd(II)	Pb(IV)	Bi(V)
Cu(I)	Cd(II)	Bi(III)	Si	
Au(I)	Ca	Cr(III)	Sn(IV)	
H	Cr(II)	Co(III)		
Li	Co(II)	Ga		
K	Cu(II)	Au(III)		
Rb	Fe(II)	Mn(III)		
Ag	Pb(II)	Ni(III)		
Na	Mg	Fe(III)		
	Mn(II)			
	Mercury(I) Hg_2			
	Hg(II)			
	Ni(II)			
	Sr			
	Sn(II)			
	Zn			

Then: Memorize page 148 from the text : Solubility Rules You will now have solubility rules given for exams

Negative Ions: Anions

-1	-2	-3	-4
acetate	carbonate	arsenide	carbide
CH_3COO^-	CO_3^{2-}	As^{3-}	C^{4-}
Bromide	Chromate	Nitride	
Br^-	CrO_4^{2-}	N^{3-}	
Chlorate	Dichromate	Phosphate	
ClO_3^-	$Cr_2O_7^{2-}$	PO_4^{3-}	
Chloride	monohydrogen phosphate	Phosphide	
Cl^-	HPO_4^{2-}	P^{3-}	
Chlorite	Oxalate	Phosphite	
ClO_2^-	$C_2O_4^{2-}$	PO_3^{3-}	
Cyanide	oxide		
CN^-	O^{2-}		
Peroxide			
O_2^{2-}			

Dihydrogen Phosphate

H_2PO_4 -

Fluoride

F-

Hydride

H-

Bicarbonate

HCO_3

Bisulfate

HSO_4 -

Hydrogen sulfide

HS -

Bisulfite

HSO_3 -

Hydroxide

OH -

Hypochlorite

OCl-

Selenide

Se2-

silicate

SiO_3 2-

sulfate

SO_4 2-

sulfide

S 2-

sulfite

SO_3 2-

telluride

Te 2-

thiosulfate

S_2O_3 2-

Iodate

IO_3

Iodide

I-

-1 Charge anions continued

Nitrate

NO_3-

Nitrite

NO_2 –

Perchlorate

ClO_4 –

Permanganate

MnO_4-

Thiocyanate

SCN-

Polyatomic Elements

Arsenic As_2

Astatine At_2

Bromine Br_2

Chlorine Cl_2

Fluorine F_2

Hydrogen H_2

Iodine I_2

Nitrogen N_2

Oxygen O_2

Phosphorus P_4

Sulfur S_8

Antimony Sb_4

Selenium Se_8

Naming of Acids

Acetic(ethanoic) CH_3COOH

Oleic $C_{18}H_{34}O_2$

Boric H_3BO_3

Hydrobromic HBr

Formic(methanoic)HCOOH

Carbonic H_2CO_3

Oxalic $H_2C_2O_4$

Hydrochloric HCl

Hypochlorous HClO

Cloric $HClO_3$

perchloric $HClO_4$

hydrofluoric HF

Hydroiodic HI

Nitrous HNO_2

Nitric HNO_3

sulfurous H_2SO_3

sulfuric H_2SO_4

Chlorous $HClO_2$