AP Chemistry Expectations and Summer Assignment

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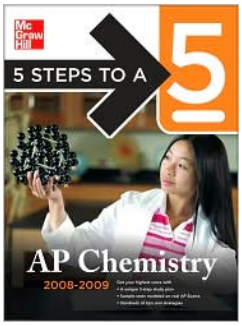
Welcome to AP Chemistry! AP Chemistry is probably the most difficult AP course offered in high school. By signing up for this class, you are agreeing to (1) have a solid work ethic, (2) put in 1 – 2 hours per day on chemistry outside of the classroom, (3) have a secure working knowledge base of general chemistry prior to taking the course, (4) stay after school for help where your knowledge base is weak or the subject area is difficult, (5) minimize absences (whether they are an approved school activity, vacation or illness) as they will greatly affect your work load and understanding, (6) take the AP Chemistry exam, (7) go into the AP Chemistry exam with the expectation of passing with a 3 or higher, and (8) respect that this is a college level course and will be taught as such. Much is expected of you; much is expected of me. With this mutual respect, these expectations can be accomplished.

The use of a calculator will be kept to a minimum. The AP exam only allows you to use the calculator on certain sections. Thus, your expertise in math is a necessity. You can expect to utilize basic math skills that you began to learn in elementary school. Addition, subtraction, multiplication and division should be second nature when you walk into the room and you should be able to do these in your head. Practice these skills using simple flash cards. Build the numbers as you go. Do not just stick to the basics. Expand your horizons and work with larger numbers. You also need to be competent with using scientific notation in the above mathematical applications. Utilize the internet to help you find ways to improve your skills. If you do not practice these skills you lose the ability to perform them quickly, confidently and competently. Flash cards will help you throughout this course. It is good practice to begin using now with these basic math skills.

Supplemental Text

We will be utilizing the following book along with our text. Please purchase this before the new school year begins! I found mine on Amazon for $8.51! There are many different books out there that appear similar. This is the specific one you need.



5 Steps to a 5 AP Chemistry
by John T. Moore, Richard H. Langley
Published by McGraw/Hill

Memorization of Polyatomic Ions

Many of these you already know. Many of these you do not. Be sure to have the following polyatomic ions given in the table below memorized by day 1.

Common Polyatomic Ions

+1 CHARGE		-1 CHARGE		-2 CHARGE		-3 CHARGE		-4 CHARGE	
ion	**name**	**ion**	**name**	**ion**	**name**	**ion**	**name**	**ion**	**name**
NH_4^+	ammonium	$H_2PO_3^-$	dihydrogen phosphite	HPO_3^{2-}	hydrogen phosphite	PO_3^{3-}	phosphite	$P_2O_7^{4-}$	pyrophosphate
H_3O^+	hydronium	$H_2PO_4^-$	dihydrogen phosphate	HPO_4^{2-}	hydrogen phosphate	PO_4^{3-}	phosphate		
Hg_2^{2+}	mercury(I)	HCO_3^-	hydrogen carbonate	CO_3^{2-}	carbonate	PO_2^{3-}	hypophosphite		
		HSO_3^-	hydrogen sulfite	SO_3^{2-}	sulfite	AsO_3^{3-}	arsenite		
		HSO_4^-	hydrogen sulfate	SO_4^{2-}	sulfate	AsO_4^{3-}	arsenate		
		NO_2^-	nitrite	$S_2O_3^{2-}$	thiosulfate				
		NO_3^-	nitrate	SiO_3^{2-}	silicate				
		OH^-	hydroxide	C_2^{2-}	carbide				
		CH_3COO^-	acetate	$C_2O_4^{2-}$	oxalate				
		CrO_2^-	chromite	CrO_4^{2-}	chromate				
		CN^-	cyanide	$Cr_2O_7^{2-}$	dichromate				
		CNO^-	cyanate	$C_4H_4O_6^{2-}$	tartrate				
		CNS^-	thiocyanate	MoO_4^{2-}	molybdate				
		O_2^-	superoxide	O_2^{2-}	peroxide				
		MnO_4^-	permanganate	S_2^{2-}	disulfide				
		ClO^-	hypochlorite						
		ClO_2^-	chlorite						
		ClO_3^-	chlorate						
		ClO_4^-	perchlorate						
		BrO^-	hypobromite						
		BrO_2^-	bromite						
		BrO_3^-	bromate						
		BrO_4^-	perbromate						
		IO^-	hypoiodite						
		IO_2^-	iodite						
		IO_3^-	iodate						
		IO_4^-	periodate						
		AlO_2^-	aluminate						
		N_3^-	azide						

A bit of creativity before you get to the nitty gritty: **Create a collage that shows what success means to you regarding AP Chemistry.** These are to be on (14in x 22 in) poster board only. The board needs to be completely covered. Write an explanation on the back of your collage. They will be displayed. Remember that success is different for each individual. No two people should have the same collage with the same explanation.

How to Make a Collage

A **collage** (From the French: *coller*, to glue) is a work of formal art, primarily in the visual arts, made from an assemblage of different forms, thus creating a new whole.

A collage may include newspaper clippings, ribbons, bits of colored or hand-made papers, portions of other artwork, photographs and other found objects, glued to a piece of paper or canvas.

The term *collage* derives from the French "coller" meaning "glue".This term was coined by both Georges Braque and Pablo Picasso in the beginning of the 20th century when collage became a distinctive part of modern art. Making a collage is fun, easy, and creative! You are going to make a collage to represent who you are. The following link gives step by step details: http://www.wikihow.com/Make-a-Collage

Go to the following link. The complete summer assignment is on this site. THIS IS NOT THE COMPLETE SUMMER ASSIGNMENT. GO TO THE SITE! The problems should be review. Please complete and turn in the first day of school.

http://kbbrasin.tripod.com/apchemistry/