Welcome to AP Chemistry!

You are receiving this letter, because you indicated that you would like to take AP Chemistry next year. I hope you have a productive, yet restful summer. I am really pleased that so many of you have taken an interest in continuing on in the field of Chemistry. The AP course has been redesigned to meet the requirements of the new exam format. Although it will be challenging, you will gain greater emphasis on both conceptual understanding and laboratory experience. In order to achieve the laboratory goals we need to make the most of our time. Please put forth the appropriate effort on these assignments, things will happen fast.

As you know, AP Chemistry is a fast paced class and in order to give you the best opportunity to pass the AP Exam and a better "college" experience, it is important to do the summer assignments Please make sure to join me on Google Classroom "AP Chemistry Summer 2026"https://classroom.google.com/c/ODU0OTAyNzcyMDEz?cjc=nm4dvue7

Besides email, this will be the forum I will be using for all summer communication.

https://sites.lps.org/sputnam/LHS_IB/IBChemistry/Chemistry_Brown_12th.pdf

The following links may be of help to you:

https://quizlet.com/_qxsuv (quizlet flash cards for traditional ion names)

https://quizlet.com/_qxssk (quizlet flash cards for common ion names)

http://www.chemteam.info/ChemTeamIndex.html

https://www.khanacademy.org/science/chemistry

AP Chemistry is designed around the following 9 units of chemistry. You should familiarize yourself with these ideas and keep them in mind as you learn and study chem this upcoming year.

Unit 1: Atomic Structure and Properties

You'll learn about the composition of atoms and ways scientists measure and categorize these molecular building blocks.

Unit 2: Molecular and Ionic Compound Structure and Properties

You'll discover the range of chemical bonds and how their structure can affect the properties of the molecules created.

Unit 3: Intermolecular Forces and Properties

You'll explore how atoms come together to create solids, liquids, and gases, and how subatomic forces govern the properties of everything around you.

Unit 4: Chemical Reactions

You'll learn how to differentiate physical and chemical processes, and how to measure and express chemical reactions via chemical equations.

Unit 5: Kinetics

You'll explore various methods to observe the changes that occur during a chemical reaction and the effects of a series of reactions.

Unit 6: Thermodynamics

You'll learn about energy changes in chemical reactions and how a transfer of energy can change a substance's physical qualities.

Unit 7: Equilibrium

You'll chart how chemical reactions change over time, what causes substances to reach equilibrium, and how systems react when that equilibrium is disturbed.

Unit 8: Acids and Bases

You'll learn more about pH, the qualities and properties of acids and bases, and how they interact in chemical reactions.

Unit 9: Applications of Thermodynamics

You'll be introduced to the concept of "thermodynamic favorability" for reactions, meaning how likely they are to occur given energy changes and environmental factors.

I am excited to seeing you in chemistry this fall, and hope you are ready to work hard. In the meanwhile, please enjoy your summer

Sincerely,

Mrs. Rohr

AP Chemistry

Positive Ions

ammonium	NH_4^{1+}
cadmium	Cd^{2+}
chromium(II)	Cr^{2+}
chromium(III)	Cr^{3+}
copper(I)	Cu^{1+}
copper(II)	Cu^{2+}
cobalt(II)	Co^{2+}
hydrogen	H^{1+}
iron(II)	Fe^{2+}
iron(III)	Fe^{3+}
lead(II)	Pb^{2+}
lead (IV)	Pb^{4+}
mercury(I)	Hg_2^{2+}
mercury(II)	Hg^{2+}
nickel(II)	Ni^{2+}
silver	Ag^{1+}
tin(II)	Sn^{2+}
tin(IV)	Sn^{4+}
zinc	Zn^{2+}

traditional names for Pb, Sn, Fe, Cu, Hg

Negative Ions

acetate	CH_3COO^{1-} or $C_2H_3O_2^{1-}$
bromate	BrO_3^{1-}
carbonate	CO_3^{2-}
perchlorate	ClO_4^{1-}
chlorate	ClO_3^{1-}
chlorite	ClO_2^{1-}
hypochlorite	ClO^{1-}
chromate	CrO_4^{2-}
dichromate	$Cr_2O_7^{2-}$
cyanide	CN^{1-}
hydride	H^{1-}
hydrogen carbonate	HCO_3^{1-}
hydrogen sulfate	HSO_4^{1-}
hydroxide	OH^{1-}
iodate	IO_3^{1-}
nitrate	NO_3^{1-}
nitrite	NO_2^{1-}
oxalate	$C_2O_4^{2-}$
peroxide	O_2^{2-}
permanganate	MnO_4^{1-}
phosphate	PO_4^{3-}
hydrogen phosphate	HPO_4^{2-}
dihydrogen phosphate	$H_2PO_4^{1-}$
sulfate	SO_4^{2-}
sulfite	SO_3^{2-}
thiocyanate	SCN^{1-}