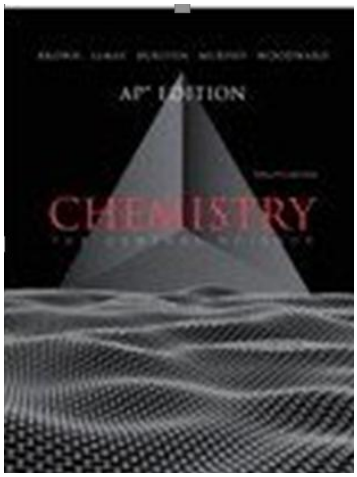
Introduction to AP Chemistry and Summer Review Packet
2026 – 2027

Welcome to AP Chemistry! This is a fast-paced course that covers a substantial amount of material in a short period of time. It is equivalent to a freshman-level introductory college chemistry course with rigorous math, considerable independent study and a strong laboratory component. The end goal is to prepare everyone to take the AP chemistry exam, tentatively scheduled for some time in the first two weeks of May 2027 (TBA)**.** AP Chemistry is a challenging class, but with patience, determination and perseverance you all have the ability to succeed!

The AP Chemistry curriculum is content-intensive. It will require you to study every day, read/take notes from the textbook, understand key terms/ideas, form study groups outside of class and apply your knowledge to a variety of problem types. Understanding how units of study are interconnected is imperative for success in this course. It is extremely important that you complete the summer assignment and ensure you are proficient in this material so that we have more class time during the year to cover the more difficult topics.

Summer Assignment (Required): You must complete items 1-5 by the first day of class



1. **Purchase your textbook:**
   You must have your own text as this allows you to highlight, take notes on and otherwise mark all over your book as you see fit. We will be using:

   Chemistry: The Central Science 12th edition. (2012).
   By Brown, Lemay, Bursten, Murphy and Woodward
   (ISBN: 0-13-217508-8)

2. **Memorize the names, formulas and charges for the common ions on the provided ion sheet**

3. **Review/Master Chemical Nomenclature:** This means you must be able to use the rules for naming/writing formulas for ionic compounds, molecules and acids

   ❖ There will be a quiz on this the first day of class in August (the first day I see you in class, whether it is a regular block day or a lavender/all day). You should be able to write the name from the formula and vice versa for ionic and molecular substances as well as acids without the use of the ion sheet. Completing the Chapter 2 note packet (see next page) will help you work out all the rules again if you are a little rusty. I also suggest making flashcards/Quizlet from the element and ion sheet I have attached in this packet and reviewing them periodically (get it, "periodically"?) over the break.

4. **Get Organized!**
   - I recommend that you organize your papers, labs, notes, etc from your first year of chemistry so you have them ready for reference in case you need it.
   - I suggest the following materials for class:
     - A 3-ring binder with dividers
     - Pencils (and plenty of erasers)
     - Calculator: Graphing or scientific

5. **Review content from your first year of chemistry**
   Topics to be reviewed include:
   a. Dimensional Analysis
   b. Significant Figures
   c. Atomic Structure
   d. Periodic table
   e. Chemical Nomenclature
   f. Balancing Chemical Equations
   g. Types of Reactions/Reaction Patterns
   h. Molecular/Empirical Formulas
   i. Stoichiometry

OPTIONAL (WILL NOT BE COLLECTED/TURNED IN): But **REALLY, VERY, HIGHLY, EXTRA, SUPER-DUPER ENCOURAGED** if you want to start the year out on the best foot possible!

To help you review topics from your first year of chemistry I am providing you with a variety of OPTIONAL resources:

- **Chapter 1, 2 and 3 Note Packets:** To help you focus your reviewing efforts on the most essential prior knowledge

- **Practice Problems (with answer key):** To help you assess your understanding of the material in Chapters 1, 2 and 3 and review again if needed

- **POGIL Activities for Targeted Topics:** POGIL stands for Process Oriented Guided Inquiry Learning. POGILs essentially give you some basic information on a topic and then ask you questions in such a way that helps you process that information meaningfully. (Note: POGILS are written assuming you are working in a group, but they can certainly be done independently as well. If you know others taking AP chemistry, you can work together on these, but it is not required).

Please review all of the information provided and let me know if you have questions before we leave for break!!

Have a great summer!

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