

2025 AP Chemistry Summer Assignment

Welcome to AP Chemistry!

If any concern should arise over the summer, please email me at jwinchilla@acchs.info.

The purpose of this assignment is to make sure you are prepared to jump right into the AP chemistry content. There will be little time for review of honors chemistry material. This assignment will ensure you are starting with all the basics in place. DO NOT wait until the night before school to complete this assignment. This is an ineffective method for reviewing material. Your focus should be on reviewing and learning. I encourage you to work together to complete this packet. **THINK study group—NOT copying.** I suggest spreading out the assignment over the month of August. You will have an opportunity to ask questions on anything from this assignment the first week of school. This assignment will be turned in on Tuesday, September 2nd.

We will try our best to cover all the topics and the required labs for the AP Exam that is in early May. All of you will find AP chemistry challenging—there is a lot to cover, so we will be moving quickly—you WILL have to put in work outside of class to be successful. We cannot slow down if you don't understand a topic. Utilize my office hours, form study groups, watch videos online, etc. if you need extra help.

Summer Work Assignment Checklist:

- Part 1: *Read “AP Chemistry Class Perception and Reality”.*
 - This is attached to this packet.
 - This will give you a realistic view of this course.

- Part 2: *Join AP Classroom and check out what the AP Chemistry course covers. This should be done by Friday, August 1st.*
 - Link for AP Classroom: <https://myap.collegeboard.org>
 - Enter Join Code: **LWRJJD**

- Part 3: *Access the AP Chemistry e-text. This should be done after July 1st.*
 - Use this link to register: <https://nglsync.cengage.com/register>
 - Course Key: **E-YLG659BP6ZQ7Y**

- Part 4: *Join our AP Chemistry Google Classroom.*
 - The invite link is: <https://classroom.google.com/c/Njk5NjMwMjlyNzgz?cjc=4v7ygrmm>
 - The class code: **4v7ygrmm**
 - Please join by the end of June. I will start to post resources you can use for your summer work.

- Part 5: *Complete summer assignment. Due by Tuesday, September 2nd.*
 - You **MUST SHOW WORK** for all worked out problems to earn credit for this assignment.
 - You will have a quiz on nomenclature after Labor Day break.

In the first couple weeks of school, you should be able to:

- *Perform metric conversions (giga-nano)*
- *Apply sig figs and rounding rules*
- *Convert between temperature units*
- *Classify matter*
- *Know the scientists, time periods, and brief description of the experiments that led to the atomic theory (discovery of the parts of the atom)*
- *Write atomic/nuclear symbols*
- *Memorize the formulas and names for common polyatomic ions and metal/nonmetal ions*
- *Know the group names for the periodic table*
- *Name binary compounds (molecular and ionic) and common acids*
- *Calculate molar/atomic masses and average atomic masses*
- *Balance chemical reactions*
- *Perform stoichiometric calculations (moles-atoms-grams)*
- *State Avogadro's number*
- *Calculate percent composition*
- *Determine limiting reactant and calculate percent yield*

Class Supplies:

- Lots of paper and a graphing calculator
- Pick a way to stay organized. Here are 2 options:
 - Idea #1: 2 Binders
 - Bring to school a small binder for current materials and keep a larger binder at home to save older units to review.
 - Idea #2: Folders
 - Buy a folder for each unit and as they are completed keep them at home to review.
- Your main goal will be to learn the material and stay organized. I encourage you to do that however you think is best.
- I will provide a lab notebook.

Congratulations of choosing AP Chemistry!! It is a fun and interesting course, but both of those outcomes depend upon **WORK**. You should be proud that you are challenging yourself to the limit of your academic ability. Know that if you apply yourself, you will reap the rewards. I'm excited to work with you next year!!

Mrs. Winchilla

AP Chemistry Class Perception and Reality

Students need to be realistic about the expectations for this course. Many students THINK they are ready for college level work but really don't know what that means. To get a more realistic view of this course, I have included some perceptions entering students have of the situation.

1. **PERCEPTION:** I can miss class (sports, activities, family vacations, jobs, field trips, etc.) and catch up on my own. I always have before.

REALITY: You can't!!! In AP Chemistry, missing class is the number one reason why students fall behind, get lost, give up, and either drop the class or get a low grade. You cannot be gone for three days and expect to get caught up with a 10-minute session after school. I cannot teach in 10 minutes what it took 4.5 hours to teach earlier. You will need to come in for tutoring and/or make arrangements for assignments to catch up. I'm happy to help you catch up, but you have to put in the time and effort to do so.

2. **PERCEPTION:** Mrs. Winchilla is making this class a lot tougher than it really needs to be.

REALITY: Never forget—this is a college level course **NOT** an advanced high school course. If I am doing my job, students in this course should learn as much as they would if they were taking freshman chemistry at any college or university in the United States. A second goal is to properly prepare students for the AP Exam in May. I cannot make the course easier and still accomplish the above goals.

3. **PERCEPTION:** If a majority of the class falls behind, Mrs. Winchilla will just have to slow down so that we can catch up.

REALITY: I can't!!! You will find that time is of the essence in this course. As much as I may like to, our schedule cannot be adjusted. You will need to come in for tutoring if you fall behind. Students will be expected to study the text on their own, and class time will be used more for practice problems, labs, and activities than for reviewing old material. There is no other way to cover the vast amount of material required by the AP exam. If we slow down to make the course easier, we will not cover the required subject matter, and students will have to face exam questions on material not covered in class. As a result, I will make up a schedule that will allow us to complete all required material prior to the exam, and students **MUST** keep to this schedule. Chemistry topics build upon each other, and students who fall behind have to be responsible and take action to catch back up.

4. **PERCEPTION:** All this work Mrs. Winchilla is talking about must be necessary only if I don't pay attention in class. I've never had to study before!

REALITY: All students who expect to be successful in this course will have to spend time after school—either by getting help with an assignment, completing lab work/homework, or reviewing for tests. If you are not willing or able to work/study after school to complete chemistry work, you should not take this course! I **WILL** be available almost every day after school. Students are encouraged to come in for help and to form study groups with peers. Students should expect to spend time outside of class in the study of chemistry most nights. Students who have after-school jobs or who are heavily involved in after-school activities will have to budget their time accordingly.

5. **PERCEPTION:** Mrs. Winchilla doesn't really expect us to do a summer assignment, and she isn't really going to test us the first week of classes.

REALITY: I am serious about this—the summer assignment is mainly to review honors chemistry 1 topics. You will have a quiz on naming & formula writing Week 1. This early work will allow us to spend additional time later in the year on more difficult topics.