

## Welcome to Advanced Placement Chemistry!

Dear Prospective AP Chemistry Student,

I am looking forward to an exciting year of AP Chemistry starting in the fall. I really love chemistry and I am excited that you have chosen to deepen your understanding of science by taking AP Chemistry. AP Chemistry will challenge your academic abilities. Since this is a college-level course taught in high school, it is very demanding, both in time and effort required. Homework will be assigned daily, and may include problem sets from the textbook, pre-lab or post-lab analysis questions, or AP exam review materials. Laboratory activities will occur weekly and will require more detailed analysis than what was required in general chemistry. The amount of work outside of class depends upon background of each student; however, you should be prepared to spend about 30 minutes to an hour on AP Chemistry homework daily. If you are heavily involved in after school activities and/or jobs, you will need to budget your time carefully. I am very willing to work with you to support you during this demanding course. I am here as a resource to help you learn chemistry and develop as a student.

AP Chemistry looks great on your transcript. Colleges and universities look for ways that students have distinguished themselves in high school. Taking challenging courses, like this one, and performing well on the AP exam will help you distinguish yourself when applying for college or scholarship funds. This course will also allow you to achieve college credit while still enrolled in high school. This may save time and money. AP Chemistry is eligible to earn college credit by passing the College Board AP Chemistry Exam and through Clackamas Community College. Some students who pass the AP Exam may elect to take first year college chemistry anyway - in which case they will likely find the material a review and easily achieve top grades in the course.

The attached summer assignment is a review of concepts covered in Chemistry A and B. You are encouraged to use the AP Chemistry textbook (Brown & LeMay, "Chemistry: The Central Science"), your notes or materials from Chemistry A and B, and Internet resources for help completing the assigned problems. Your summer assignment is due on the **first day of school** in September. Your assignment should clearly indicate each chapter exercise. Your assignment should represent your original work (not a copy of another person's work). All calculations must be shown with units included on all answers and values used in a calculation.

Before you leave school for the summer, please sign up for **Google Classroom** and check out a textbook from the library. I have broken the assignment into several parts with "due dates" two weeks apart. These due dates are provided to give you guidance for how to pace yourself through the assignment. You may need to adjust when you do the work to accommodate summer trips and activities. I will use Google Classroom to post hints, resources, and selected solutions for assigned problems close to each due date. There are also tips for using the textbook given at the end of the assignment timeline. Please do not hesitate to email me about any concerns or if you get stuck. I will respond as soon as possible.

Have a safe and enjoyable summer. I am looking forward to seeing you in September.

Sincerely,

Ms. Kilpatrick

Email: [Roxanne.Kilpatrick@orecity.k12.or.us](mailto:Roxanne.Kilpatrick@orecity.k12.or.us)



## *Assignment Timeline*

Due Date	Assignment
Friday, June 8 (before Finals)	<p>Check out a Textbook – Brown and LeMay “Chemistry: The Central Science”</p> <p>Sign up for the AP Chemistry Google Classroom</p> <ul style="list-style-type: none"> <li>• Go to <a href="https://classroom.google.com/">https://classroom.google.com/</a></li> <li>• You will need to be signed in to your OCHS school email address</li> <li>• Use the class code <b>gtqs4v</b> to join the AP Chemistry Google Classroom</li> </ul> <p>Send an Email to <b>Roxanne.Kilpatrick@orecity.k12.or.us</b> from the email account you will be checking over the summer.</p> <ul style="list-style-type: none"> <li>• Subject: AP Chemistry</li> <li>• Body: Write that you are taking AP Chemistry and sign your first and last name</li> </ul> <p>Tip: If you do not anticipate regularly checking your school email account over the summer, set up email forwarding to an email account you use more frequently.</p>
June 18	<p>Complete and submit the assigned <b>Letter of Introduction</b> on Google Classroom. Complete instructions can be found on Google Classroom.</p>
July 2	<p>Chapter 1: Introduction - Matter and Measurement (p. 1-29)</p> <p>Classifications of Matter &amp; Properties of Matter (Sections 1.2 &amp; 1.3)            Read: pages 4-13                      Exercises: 1, 2, 11, 17 (p. 30-31)</p> <p>Units and Measurement &amp; Uncertainty in Measurement (Section 1.4 &amp; 1.5)            Read: Pages 13-24                      Exercises: 23, 35, 39 (p. 32-33)</p> <p>Dimensional Analysis (Section 1.6)            Read: Pages 24-29                      Exercises: 9, 43 (p. 31 and 33)</p>
July 16	<p>Chapter 2: Atoms, Molecules, and Ions (p. 36-48)</p> <p>The Atomic Theory of Matter &amp; Discovery of Atomic Structure (Sections 2.1 &amp; 2.2)            Read: pages 38-42                      Exercises: 1, 15, 16 (p. 69 and 71)</p> <p>The Modern View of Atomic Structure and Atomic Weights (Section 2.3 &amp; 2.4)            Read: Pages 43-48                      Exercises: 20, 26, 29, 35 (p. 71-72)</p>
July 30	<p>Chapter 2: Atoms, Molecules, and Ions (p. 48-68)</p> <p>Periodic Table, Molecules, &amp; Ionic Compounds (Section 2.5, 2.6, &amp; 2.7)            Read: Pages 48-58                      Exercises: 38, 43, 47, 51, 55, 59 (p. 72-73)</p> <p>Naming Inorganic Compounds &amp; Some Simple Organic Compounds (Section 2.8 &amp; 2.9)            Read: Pages 59-67                      Exercises: 63, 65, 67 (p. 74)</p>

*Assignment Timeline (Continued)*

<b>Due Date</b>	<b>Assignment</b>
August 13	Chapter 3: Stoichiometry – Calculations with Chemical Formulas & Equations (p. 80-89) Chemical Equations (Section 3.1) Read: pages 80-83              Exercises: 1, 2, 12 (p. 108-110) Some Simple Patterns of Chemical Reactivity (Section 3.2) Read: pages 84-87              Exercises: 3, 15, 19 (p. 108-110) Formula Weights (Section 3.3) Read: pages 87-89              Exercises: 21, 23 (p. 110-111) Avogadro's Number and the Mole (Section 3.4) Read: pages 89-94              Exercises: 29, 37 (p. 111-112)
August 27 (one week before classes begin)	Chapter 3: Stoichiometry – Calculations with Chemical Formulas & Equations (p. 89-108) Empirical Formulas from Analyses (Section 3.5) Read: pages 95-98              Exercises: 45, 47, 49 (p. 112) Quantitative Information from Balanced Equations (Section 3.6) Read: pages 98-102              Exercises: 57, 64 (p. 113) Limiting Reactants (Section 3.7) Read: pages 102-107              Exercises: 8, 73, 79 (p. 109 and 114)
<b>Expectations for the First Week of School</b>	Completed Summer Homework Due (9/4 first day of school) <ul style="list-style-type: none"> <li>Students should submit their own original work (not a copy of another person's work). All calculations must be shown with units included on all answers and values used in a calculation.</li> </ul> Lab Assignment – applying concepts from Chapters 1-3 (within first 3-5 class days) Test – covering concepts from Chapters 1-3 (within first 5 class days)

## Tips for Using the Textbook:

- **Sample exercises** found throughout each chapter model how to work many of the assigned exercises.
- The **Chapter Review**, found at the end of each chapter, includes a paragraph summary of each section of the chapter and a list of “key skills” outlining what you should be able to do upon completion of the chapter.
- Problems with red numbers (usually odd problems) have answers in the tan colored pages in the back of the textbook (after Appendix E, before the glossary).