

AP CHEMISTRY: 2022-2023
SUMMER ASSIGNMENT

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Welcome to AP Chemistry! I am looking forward to working with you in preparation for the AP Chemistry exam scheduled on **May 1, 2023, at 12pm**. To save time, areas of study have been selected for you to review so September can feature more in-depth material. Since the test is in early May, it will be necessary for you to do a good deal of independent study during vacations, weekends, and other breaks from school. With all the content complete, past AP exams can be thoroughly practiced beginning in mid-April.

Like many colleges, we will use the tenth (10th) edition of the Zumdahl Chemistry textbook. Homework will be assigned for each chapter online in a platform called OWLv2. The summer assignment will also be accessible on this platform. There are two (2) parts with questions: the first originating from the textbook, and the second created from various other sources. The questions have a "hint" tab if you have trouble. You will be able to work on the assignment until you get it 100% correct, with a limitation of ten (10) attempts per question. If you have difficulty with any of the material, you can access the textbook online. At the end of each chapter there is additional practice in a section called "Exercises". Answers are provided to the odd numbered questions. The topics covered include:

- Nomenclature
- Stoichiometry (mass only, limiting and excess reactants)
- Mole Conversions
- Empirical and Molecular Formula problems
- Dimensional Analysis
- Solubility Rules
- Significant Figures
- Chemical Reactions (single & double replacement, combustion)
- Isotopic Notation
- Particle Diagrams

SUMMER ASSIGNMENT: Due by 11:55pm on Monday August 29, 2022

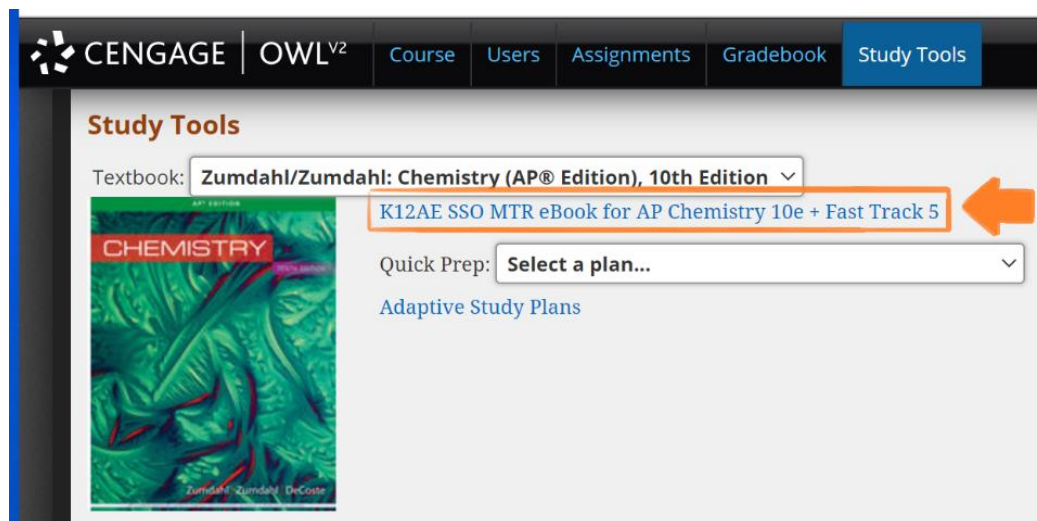
1. **Login to:** <https://nglsync.cengage.com/register> with Course Key: **E-XT9WPDYZ8FGQX**
2. **Register** as a new user: student ID, username, first and last name, and a password.
3. **Do this before Friday July 1, 2022.** If you sign up for the class late due to a schedule change or to fulfill prerequisites for the course, email me so I am aware of your situation.

Once you log in, three (3) tasks will be visible:

1. Introduce yourself by email: "CLICK HERE TO BEGIN" opens a webpage advising how to write an introductory email. Your email *to me* should briefly introduce yourself by explaining why you chose to take AP Chemistry and share something about yourself you think I should know. An appropriate email message received before the deadline is worth five (5) points.
2. Summer Assignment 2022: You get ten (10) tries for each of the sixteen (16) questions. There is only one (1) version of the question. This task is worth sixteen (16) points, graded by accuracy.
3. QuickPrep v2 2022: You can click directly on "Quiz" and then "Start Quiz" or, if you wish, you can review first by clicking "Study Plan". This task is worth twenty-nine (29) points, graded by accuracy.

Online Textbook:

At the top of the OWLv2 screen is a link labeled "Study Tools". This is where you can access the online textbook. Click on **K12AE SSO MTR eBook for AP Chemistry 10e + Fast Track 5**.



Below are additional problems if you need extra practice. You can view exercises of the desired chapter by navigating the Table of Contents.

- Chapter 1: Chemical Foundations
 - Significant Figures #33-41
 - Dimensional Analysis #43-59
 - Matter #83-87
 - Physical & Chemical Changes #91
- Chapter 2: Atoms, Molecules, Ions
 - Isotopic Notation #61-71
 - Nomenclature #75-91
- Chapter 3: Stoichiometry
 - Moles #47-73
 - Percent Composition #75-79
 - Empirical & Molecular Formula #81-91
 - Stoichiometry #109-133
- Chapter 4: Types of Chemical Reactions and Solution Stoichiometry
 - Solubility Rules #49-51

Sometime in mid-August, I will email you an additional review sheet. The first day of school will be Wednesday, September 1.

The test on this REVIEW material is tentatively scheduled for the third (3rd) day your class meets.

Come to class prepared with questions to ask during the first two (2) days!

I hope you are looking forward to September but don't forget to enjoy the summer. If you have any questions, please feel free to email me at mcoleman@livingston.org.