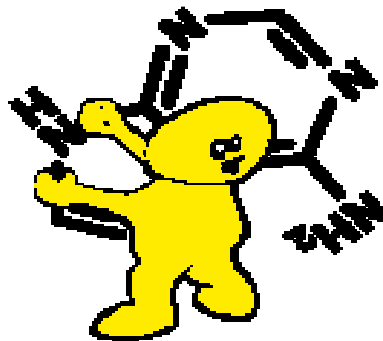


# CHEMISTRY I



**Instructor:** Ms. Conley

**Prerequisites:** Biology I and Algebra I

## Course Scope-

This first year course is designed for students who have successfully completed Algebra I and exhibit interest in science. Topics include: mathematics of chemistry, atomic theory and structure, laboratory procedures and safety, elements, compounds and mixtures, the structure and organization of the periodic table of elements, chemical bonding, nomenclature, the mole concept, acids-bases-salts, equilibrium, organic chemistry, radiation and nuclear chemistry, ecology and relationships of chemistry to the environment, biochemistry, electrochemistry, and forensic chemistry. The course will fulfill one of the science credits required for high school graduation, and will meet the college entrance requirements for laboratory science.

## Course Goals

- To develop the basic skill of using the scientific method of problem solving.
- To develop safe laboratory skills and procedures in using laboratory equipment.
- To develop skill in using symbols, terms, equations, and units of measurement.
- To develop an understanding of the changes elements, compounds, and mixtures undergo.
- To demonstrate an understanding that the periodic table is based upon atomic structures resulting in repeating patterns and properties.
- To practice skill in writing and naming chemical formulas using the periodic table.
- To develop an understanding of chemical bonding.
- To develop an understanding of chemical equations.
- To develop a quantitative understanding of chemical reactions (stoichiometry).
- To develop an understanding of the behavior of matter in terms of kinetic molecular theory.
- To explore the solution process.
- To develop an understanding of the behavior of acids, bases, and salts.
- To develop a basic understanding of factors that affect rates of reaction (collision theory).
- To explore the energy changes involved in chemical and physical processes.
- To develop a basic understanding of chemical equilibrium.
- To explore principles of nuclear chemistry.
- To explore basic polymer chemistry.
- To develop an awareness of the relationship of chemical principles to current societal issues and advancements including such topics as nuclear waste disposal, air, water and land pollution, energy resources, uses of nanotechnology and advancements in medicine.
- To develop an awareness of the vocational opportunities in areas related to chemistry.
- To develop an understanding of character, ethics, and manners as appropriate for this course.

## Course Structure-

- 1<sup>st</sup> Quarter:** math review, safety, laboratory procedures, elements, compounds, mixtures, atomic structure.
- 2<sup>nd</sup> Quarter:** periodicity, chemical bonding, nomenclature, chemical equations, stoichiometry.
- 3<sup>rd</sup> Quarter:** gases, liquids, solids, solutions, acids, bases, and salts, thermochemistry, kinetics.
- 4<sup>th</sup> Quarter:** equilibrium, electrochemistry, organic chemistry, nuclear chemistry, chemistry of the environment, careers.

## Materials required-

The following materials are REQUIRED to participate in the class: Pen/pencil, a three-ring binder with a section used only for Chemistry, a graph-ruled lab write-up book, a planner, a **scientific calculator**, and paper.

## Grading Policy/Evaluation-

Your average will be determined by dividing total points achieved by the total number of possible points. The following scale will be used. A = 89.5-100%, B = 79.5-89.4%, C = 69.5-79.4%, D = 59.5-69.4 %, F = < 59.4%. Your final semester grades will be based on the following criteria:

$$40\% \text{ 1}^{\text{st}} \text{ Quarter} + 40\% \text{ 2}^{\text{nd}} \text{ Quarter} + 20\% \text{ Semester Exam}$$

## Grade Distribution:

TESTS: Tests and quizzes will be administered throughout the course to determine the students' individual progress. Tests and quizzes will account for 40% of each quarter's grade. Tests will be given at the end of each unit of study. A final exam will be given at the end of each semester. The final will count for no more than 10% of your semester grade.

LABORATORIES: Lab activities will be completed throughout the course of the year to reinforce learning. Labs will emphasize hands on learning in a cooperative environment. Students who fail a lab for disciplinary reasons may not participate in the next lab. Any student not participating in a lab will be given an alternative assignment of equal point value. Lab activities will account for 20% of each quarter's grade. Students will be required to purchase a laboratory book for their write-ups. We will use graph paper books of at least 80 pages.

ASSIGNMENTS/HOMEWORK: Students are expected to complete all assignments to the best of their abilities. Assignments will be completed in class or at home as homework. You are expected to turn in all work on time. You are also expected to show all work on assignments.

Homework will be assigned 3 to 4 times per week.

Assignments and homework will account for 20% of each quarter's grade.

Binder: You are required to have a binder with paper, pencils, and a **calculator** (one that will perform exponential functions). You will be expected to maintain one section in your notebook for this class only.

## Notebook Guidelines:

1. You must show work on all assignments in your notebooks for any credit.
2. There will be notebook checks administered periodically so keep your notebook neat, orderly, and compliant with notebook procedures outlined in class.
3. Notes taken in class will be fill- in the blank format.
4. Notebooks will count for 10% of each quarter's grade.

**PARTICIPATION:** Participation in class and at home on homework is essential for success in chemistry. Participation will account for 10% of each quarter's grade and will be awarded on: vocabulary checks and quizzes, In Questions, homework checks, classwork checks, and various student responses to questions during the quarters.

**Make-up Work:** It is your responsibility to find out what assignments were missed in your absence.

### Make-up work procedure:

1. Get In Question Vocabulary from a classmate.
2. Handouts and assignment sheets will be in a numbered folder in the crate by the front door. Obtain those that you are missing.
3. See me to schedule a time (before or after school) to make up any tests. Tests must be made up within three days of an absence.  
See a friend or come in before or after school to obtain the notes missed.

Make-up work must be labeled as such and placed in the labeled box. You will have 3 days from the time you return to complete tests and assignments.

**Help Session Hours:** Chemistry Advanced Placement will have free chemistry tutoring sessions weekly. Days and times will be announced. Please come and see me if you need any help with this course!

**Attendance:** As a student it is your responsibility to be in class every day. You are expected to be on time every day. Students who exceed 10 unapproved absences in a semester will automatically lose credit for the class.

**Tardy Policy:** All students must adhere to the school-wide tardy policy.

### **Student Code of Behavior:**

If you act sensibly, responsibly, respectfully, and maturely, you will do fine. The following are guidelines to insure a safe and productive year. Failure to adhere to the code of behavior will result in disciplinary action.

\*Enter the room quietly and take your seat. Begin working on the Q.O.D.

1. Have all required materials ready at the beginning of class.  
(notebooks, requested materials, homework turned in)
2. Treat everyone in the class in a respectful manner.  
-practice patience and compassion.  
-use no offensive language.  
-allow others the opportunity to speak.  
-think before you speak.
3. Respect the property of others.  
-school and personal

**Respect for people and property is very important and will be stressed in this class!**

4. Remain seated in your designated seat until dismissed by me.

5. Listen and follow directions for all activities.
6. Mandatory compliance of all school rules.

**Disciplinary Actions Taken by Teacher:**

1. Verbal warning
2. Loss of participation points and privileges.
3. 30 minute detention after school.
4. Phone call to parent or guardian.
5. Habitual problems will be referred to the Dean.

**Citizenship:**

Citizenship grades will be earned by the student for their actions during each of the four nine week grading periods.

O = A student that demonstrates exemplary behavior or citizenship. This would include a student that assists other students in being successful. As a student you promote a positive learning environment.

S = A student that demonstrates the proper motivation to be successful. Does not hinder the success of other students in the class.

N = A student that creates an environment that makes learning difficult for themselves as well as others.

You can receive a U for the following reasons.

1. Dishonesty (cheating on tests or assignments, includes copying)
2. Disrespectful of students, teachers, or substitutes.
3. Four or more tardies.

Citizenship will be awarded based on absences, number of tardies, and quantity of participation points.

The guidelines for this class will be used for the entire year. The expectations established in this outline are designed to make this a productive, enjoyable, and safe year. As a student you agree to meet, to the best of your abilities, all of the expectations established in this outline. As a parent or guardian you agree to support the expectations in this outline, with the understanding that they are meant to enhance the learning environment of the classroom. These expectations will be kept in the science section of your notebook at all times throughout the year, and should be used as a reference when questions arise. By signing below, you agree to support everything stated in this course outline, and you now know what to expect from this course. I promise this will be a great year!

## Signature Form: Chemistry I - Ms. Conley

**Students:** I have read and understand the course expectations packet given to me by Ms. Conley

Name (print): \_\_\_\_\_ Grade: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Parents/Guardians:** My child and I have gone over the classroom expectations packet and understand the rules, regulations, and procedures that are to be followed. I also understand the grading policy and classroom routines. I understand these items and support them.

Name (print): \_\_\_\_\_ Name (print): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please fill out the following information below. Thank you.

Home phone: \_\_\_\_\_

Cell Phone (optional): \_\_\_\_\_

Email: \_\_\_\_\_

**Videos: Throughout the year, students may learn through the use of a video related to the topic they are currently studying. If you do not wish for your child to watch selected educational videos (National Geographic, NOVA, Discovery, etc.....) which are Not Rated, G or PG rated they will be provided with assignments during these occasions and sent elsewhere.**

Please check one:

( ) My son/daughter **may** watch selected videos.

( ) My son/daughter **may not** watch PG selected videos, but may watch Not Rated and G videos

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_