

Chemistry Syllabus

2024-2025 School Year

Roxanne Hoover, Instructor

I. Course Description and Requirements

This course is designed to strengthen students' critical thinking and problem-solving skills and to give students a foundational understanding of chemistry. Course content to be covered includes lab skills, measurement, atomic theory and structure, the periodic table, electrons, chemical bonds, chemical reactions, stoichiometry, states of matter, gas laws, solutions, acids and bases, and thermochemistry.

Instructional activities place a heavy emphasis on student autonomy, inquiry-based learning, and hands on experiences. Students should be expected to think critically, conduct laboratory investigations, and demonstrate their understanding through a variety of methods, including, but not limited to, quizzes, tests, research projects, models, and labs. Learning activities include teacher-lead instruction, group work, student seatwork, project-based learning, and lab experiences with both student-choice and teacher-choice grouping.

Students can expect to start each day with a bell ringer assignment followed by learning activities and/or lecture. Students will work independently from the teacher in order to achieve the student autonomy expected of upper school students. Classes are structured to utilize every minute for learning and assessing understanding. Real world application is a daily objective. Higher-level thinking will be incorporated into each lesson as well as use of technology, when applicable, to increase student achievement. Students are expected to participate in all activities and actively engage and ask questions during teacher-led lecture. Students are also expected to review and study the content covered in class outside of school daily.

II. Class Expectations

- Students are expected to be **present** and active members of the classroom each and every day.
- Students are expected to come to class **prepared** with all necessary materials and completed assignments to learn and participate in all lectures and activities.
- Students are expected to be **respectful** of the teacher, the classroom, and their peers.

III. Class Discipline

Students who are not acting present, coming prepared, and being respectful will earn one of the following consequences:

- Warning in class
- Removal from class activity AND parent contact
- Teacher/Student conference during or after class AND parent contact
- After school detention AND parent contact
- Written referral and removal from class AND parent contact

Any student caught cheating on an assignment will receive a zero and be referred to the Principal.

IV. Required Materials

All students must come to class each day with the following materials:

- A 1.5-2-inch three-ringed binder with dividers, paper and unit materials
- Pencil
- Calculator

V. Assessment and Grading Plan

We will cover ten units over the course of the year. Each unit consists of 1-4 major topics. Students will have a daily bellringer that will be treated as a weekly grade in Lumens. Unit tests include both multiple choice and open response questions. **Note: Assignments checked for completion will not be accepted late. Assignments collected and graded for accuracy will be accepted late with a penalty of 10% off every day late. **Under absolutely NO circumstances will late work be accepted after the completion of the unit the work is from, unless the student has an excused absence.**

Course work may include:

- *Classwork/Informal labs:* Each unit has engaging activities, labs, and practice to help master the content.

These assignments range from 15-100 points, depending on the length and depth of the material.

- *Bell Ringers*: At the start of each day the students will complete a bellringer over content covered during the previous class period. Students who were absent the previous class period will not be expected to complete the bellringer the day they return if it is over content they missed. Their grade on each day's bellringer will be added up for one weekly Bell Ringer grade of 25 points at the end of each week.
- *Study guides*: Students will be required to make study guides for each test to help them review the material each day and prepare for the unit tests. Study guides will be made off of the first sheet of each packet by answering the objectives and defining the vocabulary for each concept. Every concept study guide is worth 10 points. Students who make A's on two tests in a row are exempt from completing study guides if they continue to maintain A's on the unit tests.

Course Plan (This may be altered at the discretion of the instructor.)

<u>1st Semester</u>	<u>2nd Semester</u>
Unit 1: Introduction to Chemistry <ul style="list-style-type: none"> - Dimensional Analysis and Scientific Notation Quiz (25 pts) - Unit 1 Test: Concepts 1-3 (100 pts) Unit 2: The Atom <ul style="list-style-type: none"> - Children's Book Project (100 pts) - Unit 2 Test: Concepts 1-2 (100 pts) - Nuclear Chemistry Quiz (25 pts) Unit 3: Electrons <ul style="list-style-type: none"> - Unit 3 Test: Concepts 1-3 (100 pts) Unit 4: Chemical Bonds <ul style="list-style-type: none"> - Ionic Naming Quiz (25 pts) - Unit 4 Test #1: Concepts 1-3 (100 pts) - Covalent Naming Quiz (25 pts) - Unit 4 Test #2: Concepts 4-6 (100 pts) Unit 5: Chemical Reactions <ul style="list-style-type: none"> - Balancing and Classifying Quiz (25 pts) - Unit 5 Test: Concepts 1-3 (100 pts) - Inquiry Lab Activity Formal Lab Report (100 pts) 	Unit 6: Stoichiometry <ul style="list-style-type: none"> - Stoichiometry Quiz (25 pts) - Unit 6 Test: Concepts 1-3 (100 pts) Unit 7: States of Matter <ul style="list-style-type: none"> - Gas Laws Quiz (25 pts) - Gas Laws Project (100 pts) - Unit 7 Test: Concepts 1-3 (100 pts) Unit 8: Solutions <ul style="list-style-type: none"> - Concentration Quiz (25 pts) - Unit 8 Test: Concepts 1-3 (100 pts) Unit 9: Acids and Bases <ul style="list-style-type: none"> - Unit 9 Test: Concepts 1-3 (100 pts) Unit 10: Thermochemistry <ul style="list-style-type: none"> - Unit 10 Test: Concepts 1-3 (100 pts) - End of Year Project (100 pts)

**This is the plan, but it is subject to change! Additional projects may be added, and some may be removed, pending time.*

VI. Communication

I will regularly post on updates, announcements, lecture notes, and assignments for students to access on google classroom. If you ever want to know something, check the website first! Students and parents are also encouraged to contact me via email. I do not respond to email after I leave for the day or on weekends. I will respond to all emails within 24 hours **during the school week**, and can respond in much more detail and speed than if you attempt to call. Students are also strongly encouraged to attend after school tutoring from if they ever need help!

Email: rhover@stanberryschools.org

Google Classroom Code: _____

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Please sign and return the bottom portion by _____.

Parent Signature: _____ Preferred Contact Information: _____

Student Signature: _____

Date _____