



Honors Chemistry

Course Syllabus

10th Grade

INSTRUCTOR: Mrs. Michele Walters
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TUTORING INFORMATION: Lyceum,
T, W, and F after school
LOCATION: Room 215

Contacting Instructor: The best way to contact me is via email; please be sure to CC your parent(s) on any emails you send to your instructors. I respond to emails within 24 hours, or by the end of the school day following a weekend or holiday.

Course Overview

This course covers the major principles of general chemistry. The primary goals of the course are to provide students with a solid conceptual and mathematical understanding of matter and chemical behavior while bridging concepts between math, physics, and biology. Furthermore, students should acquire small-scale laboratory skills to prepare them for future science courses or summer programs. The interactive nature of classroom discussions, demonstrations and laboratory experiments will develop problem solving and critical thinking skills. Student confidence and success with the subject material correlates to the student's completion of homework, checking answer keys, preparing for each class and participating in discussion. The ability to think critically and analyze information with an open mind will be key to comprehending and expanding on the concepts associated with this course.

Course Objectives

<i>Quarter 1</i>	<i>Quarter 2</i>	<i>Quarter 3</i>	<i>Quarter 4</i>
<ul style="list-style-type: none">▪ Lab safety▪ Properties of matter▪ Properties of atoms▪ States of Matter▪ Atomic theory▪ Relationship between matter and energy▪ Metric conversions▪ Dimensional analysis▪ Significant figures▪ Scientific notation▪ Periodic Table trends	<ul style="list-style-type: none">▪ Ionic compounds▪ Covalent compounds▪ Lewis Dot Structures▪ VSEPR Theory▪ Atomic mass, molar mass, conversions using moles, grams, and Avogadro's number▪ Chemical reactions▪ Balancing equations▪ Types of reactions	<ul style="list-style-type: none">▪ Stoichiometry▪ Combined Gas laws▪ Ideal Gas Law▪ Kinetic molecular theory▪ Lattice Energy▪ Intermolecular forces▪ Properties of liquids▪ Phase diagrams▪ Heating/Cooling curves	<ul style="list-style-type: none">▪ Thermodynamics▪ Enthalpy and Entropy▪ Solutions, colloids, suspensions▪ Vitamins▪ Molarity and molality▪ Colligative Properties▪ Arrhenius and Bronsted-Lowry Acids and Bases▪ pH/pOH calculations▪ Titrations

Course Grading

Course Work	Percentage
Participation	10%
Tests	35%
Quizzes	20%
Homework	15%
Labs/Projects	20%
TOTAL	100%
Semester 1 Final Exam	10%
Semester 2 Final Exam	10%

Course Materials

Textbook: Holt Chemistry - Students are expected to keep track of their textbook as well as keeping their textbook in good condition. Textbooks must be returned at the end of the school year. Parents/Guardians are responsible for replacing lost or damaged books.

Online Textbook: PDF available on Google Sites, OpenStax – Chemistry: Atoms First OER textbook is also a good resource.

Supplementary handouts: Provided throughout the year. All lecture slides will be posted on google sites.

Required Class Materials

- Scientific calculator (TI-30X is recommended) ***Graphing calculators will not be allowed on assessments.** A classroom set is available for quizzes and tests.
- Goggles - Classroom goggles are provided and sanitized regularly; however, students may purchase their own set of goggles to keep in their locker. Quick link for ordering: <https://tinyurl.com/3xk28ah8> If a different set is chosen, it must not have any air holes in them and they must be ANSI Z-87 certified.
- Pencils and erasers
- Binder *dedicated to only chemistry* with tab binder dividers. (The organization of binder and notes will be a graded assignment throughout the year.) Minimum of 1 ½”
- College ruled notebook paper for notes in the binder or a notebook that will be inserted into the binder. Again, binders with notes will be checked as part of the participation grade.
- Colored pencils for note taking.

Optional, but requesting donations of useful items frequently needed in the classroom.

- Disinfecting wipes
- Paper towels - we use a lot of paper towels. This will be the first year that students have lab experiences for every unit in the curriculum.

Course Expectations

Absent Work & Late Assignment Policies

School-Wide Absent/Missing Work Policy: Regardless of an excused or unexcused absence, students have the same amount of days missed to turn in missed assignments for full credit.

When a student is absent: Students are responsible for checking google sites, getting notes from a peer, and picking up the missed assignment from the bin provided. The lecture slides are posted on google sites as well. If there are questions over the missed material, come see me after the notes have been obtained and the slides reviewed. It is not necessary to ask what was missed. Everything is posted on google sites and it is the students responsibility to check it daily. If a student has missing work due to incompleteness, they can turn it in the following day for 50% credit. A grade of zero is always assigned when absent to let the student know what they need to make up. The zero will be substituted with an appropriate grade once the assignment is turned in. Two days post assignment if the work is still not turned in, a zero will be permanent in the gradebook.

If a student is absent on a testing day, they must be prepared to take the test when they return to class or on the make-up day available. If there were review days missed, an extra day will be made available to prepare but must be taken on the make-up day scheduled. The make-up test may be a different test and may contain more written theory questions. All make-up tests will be scheduled for after school on Monday, Thursday, or by appointment as tests will not be made available during instructional time. Once any test has been started, it must be completed during the scheduled time.

Participation

Participation is a very important aspect of student achievement at SPA. Each student is expected to consistently contribute to class discussions in a conscientious and meaningful manner and participate appropriately during labs and other group work. The participation grade in chemistry will include being prepared for class with all material required, the completion of bell work, and other various assignments as well as complete and thorough notes. Notebooks will be checked periodically for proper organization and note-taking. Each student is expected to cultivate a positive, proactive attitude toward their learning. Student behavior, preparedness, and following lab safety rules will also be factored in grading.

Tests and Quizzes

Quizzes will cover material presented in the class and/or material assigned as homework. Quizzes are given to measure both understanding of the material as well as to help students develop strong study habits. Quizzes will always be announced.

Tests will be administered periodically throughout each quarter to assess students' understanding and comprehension of key concepts. These assessments will cover material presented in notes, lecture slides, lab activities, and homework assignments. This course emphasizes conceptual understanding rather than rote memorization. To succeed on tests, students must demonstrate a true grasp of the material—not just the ability to recall facts. No outerwear may be worn during testing periods.

Midterm and Final: A midterm and final exam will be administered at the end of each semester and will be comprehensive in scope regarding the information covered during the semester. Any topics covered during the semester (in lab, lecture, bell work or homework) may be included on a test or an exam.

Test corrections: Test corrections will not be offered for this course. Students must come prepared for tests on test day!

Midterm/Final Exams

A cumulative midterm exam will be given at the end of first semester. This exam will cover all information learned in the first semester. *The midterm exam will be worth 10% of the total Semester 1 grade.* A final exam will be given at the end of second semester. This exam will cover all information learned in the second semester, as well as key concepts learned in the first semester (many first semester concepts are the foundation for learning second semester concepts). *The final exam will be worth 10% of the total Semester 2 grade.*

Projects/Labs

Throughout the year there will be numerous lab activities and projects. All labs will incorporate a written component (such as pre-lab questions, post-lab questions, procedure development, data collection, and/or lab report writing). Labs will be performed often, with differing levels of at-home completion requirements. Writing assignments and some project items will largely be done outside of school. Requirements and timelines for

writing assignments and projects will be provided before these projects begin to allow ample planning and completion time. The lab write ups will require a composition book. Students must adhere to the lab safety rules outlined in class. If a student misses a lab, it will be at the teacher's discretion whether the lab can be made up in person or a writing assignment will be required to accompany the data provided.

Lyceum

Lyceum is a time that students can meet with their instructors to discuss missed assignments, grades, and get help with course material. When students attend lyceum, they are expected to bring questions with them as well as the notes they took to reinforce material. They must stay in the classroom with that instructor for the entirety of lyceum. If students need to meet with another instructor, they must obtain a pass from the instructor whose classroom they are in. I am typically available during any lyceum. I can also be available at other times; please ask to schedule a time.

How to be Successful in Chemistry

Chemistry is a course that builds on foundational material introduced at the beginning of the year. Concepts learned early will be used throughout the course, so it is essential to understand and keep up with the material as the class progresses. Falling behind can make it difficult to grasp more advanced topics later. Chemistry is math heavy, and it is important to practice the material to be prepared for assessments.

Punctuality is especially important—particularly for students in first period—as important information is often shared at the beginning of class. Arriving late means missing valuable instruction and graded bell work that contributes to student success.

Each chapter will include homework assignments designed to prepare students for assessments.

Homework is graded for completion and may not fully reflect a student's understanding of the material. It is the student's responsibility to review the posted answer keys after each due date and compare them to their own work. If students do not understand the material or find discrepancies in their answers, they should attend tutoring to seek clarification. Regularly checking answer keys and addressing misunderstandings is crucial for performing well on tests.

Behavioral Expectations

“The philosophy of the Academy is that students are young adults in the making who will learn civil, polite, and respectful conduct by the example of their teachers...Several very obvious signs of such respect are a student's willingness to refrain from talking in class when others have the floor; a respect for the property of the school and of other students; [and] a willingness to refrain from sarcastic or critical comments towards others. In conjunction with parents/guardians, the Academy has the goal of developing not only habits of good scholarship and critical inquiry, but the character traits of courtesy, promptness, forgiveness, self-control, responsibility, diligence, courage, generosity, and magnanimity.” (*Family Handbook*, p. 41)

Academic Dishonesty

Academic dishonesty is a very serious offense and will be treated as such. Any form of academic dishonesty may result in an academic consequence of a zero on the affected assignment as well as disciplinary consequence assigned by the Deans of Students (for more information on what constitutes academic dishonesty, please see the Family Handbook p. 40-41).



Google sites: Check daily for announcements, homework and answer keys.

Class: Honors Chemistry
Teacher: Mrs. Walters

Parent / Guardian Commitment:

Learning is not a school-only endeavor. It is important that the activities we do in the classroom are consistently reinforced at home. I would appreciate your commitment to directly support the following items from home throughout the year:

- Students should be at school on time to avoid missing important material.
- Reinforce and remind your student about their ownership of their choices and consequences, and about taking responsibility for their actions and education
- Reinforce the importance of respecting others' time, property, space, and learning environment
- Review and discuss nightly homework & corrected work or tests. Check google sites as a habit and review answer keys posted.
- Encourage students to discover which type of note taking works and develop the skill. Also, learn how to use resources available: homework, answer keys, test preparation activities, & lab activities.
- Reinforce class material organization strategies (e.g., binder organization and study aids) This is part of their participation grade.
- Reinforce and support all lab safety policies.
- Support review of vocabulary terms and key concepts. Vocabulary will be assessed as quiz grades and will help students better understand the concepts.
- Ensure that your child promptly obtains supplies
- Replenish school supplies as needed
- Provide computer resources available as needed
- Oversee computer assignments and internet usage outside of school
- Avoid replacement fees for lost or damaged school materials by reinforcing respect and responsibility for others' property (e.g., textbooks, etc.)
- Ensure that any incomplete/missing homework and/or behavior issues are addressed at home
- Realize that items contained in this packet may change slightly as needed

Please review the below items and sign:

- I've reviewed the syllabus and support the "Parent/Guardian Commitment" items.
- I will ensure that any behavior issues that I am made aware of will be addressed at home.

STUDENT PRINT NAME: _____ **PERIOD #:** _____

PARENT/GUARDIAN PRINT NAME: _____

PARENT/GUARDIAN SIGNATURE: _____

DATE: _____