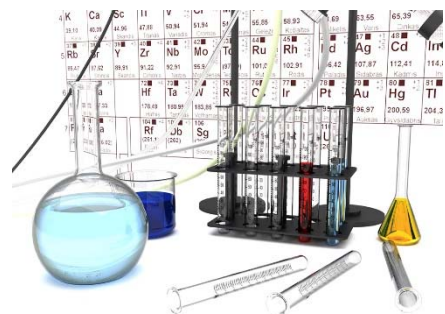


# Mr. Callender's CHEMISTRY 1

## Class Expectations

### 2014-2015



Warren Mott High School  
Room 229

Chemistry I Description from WCS High School Course Guide

Course ID: HS3121/HS3122

*This course provides students with an understanding of chemical principles and skills that are needed for college. The study of chemistry includes laboratory investigation, problem solving activities, textbook study, lecture, and class discussion. The structure and properties of matter, organic and inorganic chemistry, energy, consumer science, technology, history and societal issues make up the content of this class.*

**Recommendation: Satisfactory completion of Algebra 1**

**Warren Mott High School  
Mission Statement:**

At Warren Mott High School we are a teaching and learning community devoted to:

- Providing the tools to acquire knowledge,
- Mastering Skills for success in a changing world,
- Encouraging an appreciation for learning for a lifetime.

**We Believe:**

- We are all teachers & learners.
- Everyone is accountable.
- A nurturing setting is essential for learning.
- Learning is exciting.
- Self-discipline leads to success.
- Everyone is needed & important.

**We Value:**

- Respect for self & others.
- Diversity & unity.
- New ideas & strategies.
- A safe environment.
- Active & productive citizens.
- Honesty & Integrity.
- Pride in who we are and what we do.

**Welcome to Chemistry 1. It is my goal to give you a background in chemistry that is educational and challenging as chemistry is considered to be a college preparatory class.**

**Textbooks:** Chemistry: Matter and Change 2005 Edition from Glencoe  
Textbooks are the responsibility of the student. A student's failure to return the same textbook number they received at the beginning of the term will be charged a replacement fee of up to \$80

**Supplies:** Pencils, pens, paper, 3 subject notebook, scientific calculator, \$5.00 for goggles and other items students may keep.

**Computer with Internet:** Some components of this course may require the use of a computer with internet access for research, online assessments and homework. If computers are not available at home students may use the computers in the classroom before school, the school library on Wednesdays at study round up, the public library, or may make arrangements with the teacher for other options.

## Chemistry 1 Topic Outline

(Subject to change)

<i>Semester 1</i>	<i>Semester 2</i>
<ul style="list-style-type: none"><li><input type="checkbox"/> Intro Unit: Expectations, Safety, Skills</li><li><input type="checkbox"/> Energy Unit</li><li><input type="checkbox"/> Unit 1: Atomic Structure</li><li><input type="checkbox"/> Unit 2: Periodic Table</li><li><input type="checkbox"/> Unit 3: Quantum Mechanics</li><li><input type="checkbox"/> Unit 4: Bonding</li><li><input type="checkbox"/> Unit 5: Nomenclature and Formula Stoichiometry</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Unit 6: Equations and Stoichiometry</li><li><input type="checkbox"/> Unit 7: States of Matter</li><li><input type="checkbox"/> Unit 8: Advanced Bonding Concepts</li><li><input type="checkbox"/> Unit 9: Thermochemistry and Solutions</li><li><input type="checkbox"/> Unit 10: Acid Base</li><li><input type="checkbox"/> Unit 11: Redox Equilibrium</li><li><input type="checkbox"/> Unit 12: Thermodynamics</li></ul>

### Attendance and Chemistry

<ul style="list-style-type: none"><li><input type="checkbox"/> Students must be in class to learn chemistry. Missing out on instructional activities will adversely affect a student's grade in chemistry.</li><li><input type="checkbox"/> Students are expected to be in their seat ready to begin class when the bell rings, not in the hallway or doorway. Arriving tardy is a severe disruption to the educational process. Each additional Tardy beyond 4 will be issued a detention</li></ul>	<p>If absent it is the students responsibility to make up missed assignments in a timely manner.</p> <ul style="list-style-type: none"><li><input type="checkbox"/> One make-up day for each day of absence.</li><li><input type="checkbox"/> Write absent on your paper and the date of absence</li><li><input type="checkbox"/> If a student is absent the day of a test they will be expected to make up the test within a timely manner or an F will be given. (If tests have been passed back to class, student may not make up the test.)</li><li><input type="checkbox"/> Unverified absences on test or lab days will result in an F being issued. (With no make- up allowed)</li></ul>
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### Rules and Procedures

*While in class and school students are expected to behave in an appropriate manner. Failure to obey these rules will result in calls home to parents, detentions, and possible removal from class.*

<ol style="list-style-type: none"><li>1. ALL SCHOOL RULES APPLY</li><li>2. IDs must be visible at all times (Except during labs)</li><li>3. Come to class prepared (Book, pen and pencil, paper, homework, notebook, calculator, etc.)</li><li>4. Students are expected to behave appropriately/respectfully so as not to interfere with the educational rights of all students.</li><li>5. Assignments will be due at the beginning of the class period unless told otherwise. Late assignments are not acceptable but often taken for a late penalty.</li><li>6. Passes will not be given unless there is an absolute necessity. NO ID = NO PASS</li></ol> <h1 style="text-align: center;">P.R.I.D.E.</h1>	<ol style="list-style-type: none"><li>7. <b>ABSOLUTELY NO:</b><ul style="list-style-type: none"><li>✓ Food, beverages, candy/gum (OSHA)</li><li>✓ Electronic Communication Devices</li><li>✓ Hats, coats, backpacks</li><li>✓ Open toed shoes in the lab (OSHA)</li><li>✓ Other distractions from learning.</li></ul></li><li>8. When the bell rings class is not dismissed until the teacher dismisses the class.</li><li>9. All Students must take and pass a safety test prior to working in the lab, as well as, sign a safety contract. <i>Additionally, students may be responsible for incurring some cost for lab breakage.</i></li><li>10. Violation may result in:<ul style="list-style-type: none"><li>✓ Calls home</li><li>✓ Detentions</li><li>✓ Referrals</li><li>✓ Suspensions</li></ul></li></ol>
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### Helpful Sites/Resources

<ul style="list-style-type: none"><li><a href="http://www.wcskids.net">www.wcskids.net</a></li><li><a href="http://www.wcskids.net/wmhs">www.wcskids.net/wmhs</a></li><li><a href="http://www.callenderchemistry.weebly.com">www.callenderchemistry.weebly.com</a></li><li><a href="http://www.chemistrymc.com">www.chemistrymc.com</a></li><li><a href="http://www.khanacademy.com">www.khanacademy.com</a></li></ul>	<ul style="list-style-type: none"><li><a href="http://www.Misd.net">www.Misd.net</a></li><li>Blackboard Website/Sign-in: <a href="http://www.bb91.misd.net">www.bb91.misd.net</a></li></ul>
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### WCS Grading Scale

*The following grading policy has been developed based on newly adopted Warren Consolidated Schools Grading Policy changes.*

#### Semester Grades

*40 % of Quarter 1 + 40% of Quarter 2 + 20 % of Final Exam = Final Semester Course Grade*

98-100% = A+	87-89% = B+	77-79% = C+	67-69% = D+	No credit earned:
93-97% = A	83-86% = B	73-76% = C	63-66% = D	50-59% = E
90-92% = A-	80-82% = B-	70-72% = C-	60-62% = D-	0- 49% = F

### Quarter Grade Calculations

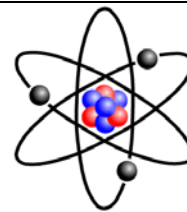
*Quarterly Grades will be calculated using the following weighted categories.*

*(Meets WCS Board Policy with over 75% of the students overall graded weighted as assessment)*

<p><b>55%</b> <b>Tests &amp; Quizzes</b></p> <p><i>Summative (Post and Unit Tests) Assessments</i></p>	<p>Tests and Quizzes are the primary method for determining the level of mastery within the chemistry course. This category is considered a type of summative assessment and is the most heavily weighted category in the students overall grade determination. Students must earn a passing average on tests in order to guarantee a passing grade in the chemistry course. Stay current with the material being covered. Do not wait until the last minute to study. (Students must earn at least a passing average on tests in order to pass the quarter.)</p> <ul style="list-style-type: none"> <li>• Test corrections <b>may</b> be offered on tests unless the assessment is available in <i>Blackboard</i>.</li> <li>• Test Corrections: This is an opportunity to correct wrong answers to test problems only. Students may not earn enough points as to achieve full credit for a problem and may not earn more than 10% additional score on their test.</li> <li>• Blackboard Assessment: Online assessments that offer students the opportunity for multiple attempts to improve their performance. Students will be presented with a random sampling of questions with each trial.</li> </ul>
<p><b>20 %</b> <b>Labs</b></p> <p><i>Formative &amp; Performance Assessments</i></p>	<p>Laboratory assignments are a type of formative or performance assessment that offers students the opportunity to apply and also form their own learning experiences. Attendance and participation is critical to success in the lab. Students must think critically and write detailed explanations for their observations. Putting extra effort into laboratory work can be a good way to boost your grade; however failure to turn in labs will harm your grade significantly.</p> <ul style="list-style-type: none"> <li>• Make every attempt to be in class on lab days. If absent, a student is responsible for the laboratory report/write-up/assignment.</li> <li>• Students should arrange to make-up missed labs before or after school, but not all lab experiences may be made up due to availability of materials.</li> </ul>
<p><b>10 %</b> <b>Skills &amp; Participation</b></p> <p><i>Observational Assessments</i></p>	<p>This category is considered a type of observational assessment. Students will be assessed based on completeness of class tasks, skills, and participation.</p> <ul style="list-style-type: none"> <li>• Participation will be further discussed in class</li> <li>• Skills include: Sustained Silent Reading Activity, Standardized Test Preparation Activities, Lab Skill Development, and more.</li> </ul>
<p><b>15%</b> <b>Assignments</b></p>	<p>Assignments include preparation and follow up tasks, online tasks for practice, exit tickets, bell work and more. This category of tasks is designed to help the student master new concepts in chemistry. These assignments are generally graded based on completeness, effort, neatness, and attention to detail. Grades on assignments do not necessarily reflect mastery of the concepts. Not doing assignments can lead to poor test scores and lack of mastery.</p>



# Warren Mott High School Chemistry Department *Student Safety Contract*



## PURPOSE

Science is a hands-on laboratory class. You will be doing many laboratory activities which require the use of hazardous chemicals. Safety in the science classroom is the #1 priority for students, teachers, and parents. To ensure a safe science classroom, a list of rules has been developed and provided to you in this student safety contract. These rules must be followed at all times. Two copies of the contract are provided. One copy must be signed by both you and a parent or guardian before you can participate in the laboratory. The second copy is to be kept in your science notebook as a constant reminder of the safety rules.

## GENERAL RULES

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the instructor before proceeding.
3. Never work alone. No student may work in the laboratory without an instructor present.
4. When first entering a science room, do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do so.
5. Do not eat food, drink beverages, or chew gum in the laboratory. Do not use laboratory glassware as containers for food or beverages.
6. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. Unauthorized experiments are prohibited.
7. Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory.
8. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
9. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times. Bring only your laboratory instructions, worksheets, and/or reports to the work area. Other materials (books, purses, backpacks, etc.) should be stored in the classroom area.
10. Keep aisles clear. Push your chair under the desk when not in use.

11. Know the locations and operating procedures of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.
12. Always work in a well-ventilated area. Use the fume hood when working with volatile substances or poisonous vapors. Never place your head into the fume hood.
13. Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.
14. Dispose of all chemical waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all other insoluble materials are to be disposed of in the proper waste containers, not in the sink. Check the label of all waste containers twice before adding your chemical waste to the container.
15. Labels and equipment instructions must be read carefully before use. Set up and use the prescribed apparatus as directed in the laboratory instructions or by your instructor.
16. Keep hands away from face, eyes, mouth and body while using chemicals or preserved specimens. Wash your hands with soap and water after performing all experiments. Clean all work surfaces and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.
17. Experiments must be personally monitored at all times. You will be assigned a laboratory station at which to work. Do not wander around the room, distract other students, or interfere with the laboratory experiments of others.
18. Students are never permitted in the science storage rooms or preparation areas unless given specific permission by their instructor.
19. Know what to do if there is a fire drill during a laboratory period; containers must be closed, gas valves turned off, fume hoods turned off, and any electrical equipment turned off.
20. When using knives and other sharp instruments, always carry with tips and points pointing down and away. Always cut away from your body. Never try to catch falling sharp instruments. Grasp sharp instruments only by the handles.

21. If you have a medical condition (e.g., allergies, etc.), check with your physician prior to working in lab.

## ACCIDENTS AND INJURIES

22. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately, no matter how trivial it may appear.
23. If you or your lab partner is hurt, immediately get the instructor's attention.
24. If a chemical splashes in your eye(s) or on your skin, immediately flush with running water from the eyewash station or safety shower for at least 20 minutes. Notify the instructor immediately.
25. When mercury thermometers are broken, mercury must not be touched. Notify the instructor immediately.

## HANDLING CHEMICALS

26. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so. The proper technique for smelling chemical fumes will be demonstrated to you.
27. Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
28. Never return unused chemicals to their original containers.
29. Never use mouth suction to fill a pipet. Use a rubber bulb or pipet pump.
30. When transferring reagents from one container to another, hold the containers away from your body.
31. Acids must be handled with extreme care. You will be shown the proper method for diluting strong acids. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid.
32. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
33. Never remove chemicals or other materials from the laboratory area. Take great care when transporting acids and other chemicals from one part of the laboratory to another. Hold them securely and walk carefully.



**Warren Mott High School  
Chemistry Department  
Student Safety Contract - continued**



**HANDLING GLASSWARE AND EQUIPMENT**

34. Carry glass tubing, especially long pieces, in a vertical position to minimize the likelihood of breakage and injury.
35. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Place broken or waste glassware in the designated glass disposal container.
36. Inserting and removing glass tubing from rubber stoppers can be dangerous. Always lubricate glassware (tubing, thistle tubes, thermometers, etc.) before attempting to insert it in a stopper. Always protect your hands with towels or cotton gloves when inserting glass tubing into, or removing it from, a rubber stopper. If a piece of glassware becomes "frozen" in a stopper, take it to your instructor for removal.
37. Fill wash bottles only with distilled water and use only as intended, e.g., rinsing glassware and equipment, or adding water to a container.
38. When removing an electrical plug from its socket, grasp the plug, not the electrical cord. Hands must be completely dry before touching an electrical switch, plug, or outlet.
39. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware.
40. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
41. If you do not understand how to use a piece of equipment, ask the instructor for help.
42. Do not immerse hot glassware in cold water; it may shatter.

**HEATING SUBSTANCES**

43. Exercise extreme caution when using a gas burner. Take care that hair, clothing and hands are a safe distance from the flame at all times. Do not put any substance into the flame unless specifically instructed to do so. Never reach over an exposed flame. Light gas (or alcohol) burners only as instructed by the teacher.
44. Never leave a lit burner unattended. Never leave anything that is being heated or is visibly reacting unattended. Always turn the burner or hot plate off when not in use.
45. You will be instructed in the proper method of heating and boiling liquids in test tubes. Do not point the open end of a test tube being heated at yourself or anyone else.

46. Heated metals and glass remain very hot for a long time. They should be set aside to cool and picked up with caution. Use tongs or heat-protective gloves if necessary.
47. Never look into a container that is being heated.
48. Do not place hot apparatus directly on the laboratory desk. Always use an insulating pad. Allow plenty of time for hot apparatus to cool before touching it.
49. When bending glass, allow time for the glass to cool before further handling. Hot and cold glass has the same visual appearance. Determine if an object is hot by bringing the back of your hand close to it prior to grasping it.

**QUESTIONS**

50. Do you wear contact lenses?  
\_\_\_\_\_ YES \_\_\_\_\_ NO
51. Are you color blind?  
\_\_\_\_\_ YES \_\_\_\_\_ NO
52. Do you have allergies?  
\_\_\_\_\_ YES \_\_\_\_\_ NO
53. If so, list specific allergies \_\_\_\_\_

**SAFETY SYMBOLS**

Use your textbook or internet to identify the purpose of the following symbols:



54. \_\_\_\_\_



55. \_\_\_\_\_



56. \_\_\_\_\_



57. \_\_\_\_\_



58. \_\_\_\_\_

**AGREEMENT**

I, \_\_\_\_\_, (student's name) have read and agree to follow all of the safety rules set forth in this contract. I realize that I must obey these rules to ensure my own safety, and that of my fellow students and instructors. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe lab environment. I will also closely follow the oral and written instructions provided by the instructor. I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehavior on my part, may result in being removed from the laboratory, detention, receiving a failing grade, and/or dismissal from the course.

Student Signature: \_\_\_\_\_

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

*Dear Parent or Guardian:*

We feel that you should be informed regarding the school's effort to create and maintain a safe science classroom/ laboratory environment. With the cooperation of the instructors, parents, and students, a safety instruction program can eliminate, prevent, and correct possible hazards.

You should be aware of the safety instructions your son/daughter will receive before engaging in any laboratory work. Please read the list of safety rules above. No student will be permitted to perform laboratory activities unless this contract is signed by both the student and parent/guardian and is on file with the teacher.

Your signature on this contract indicates that you have read this Student Safety Contract, are aware of the measures taken to ensure the safety of your son/daughter in the science laboratory, and will instruct your son/daughter to uphold his/her agreement to follow these rules and procedures in the laboratory.

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

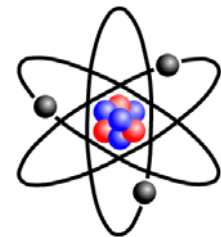
Date: \_\_\_\_\_





**Warren Mott High School**  
**3131 Twelve Mile Road**  
**Warren, Michigan 48092**

Robert L. Callender, Chemistry Teacher  
586.574.3250 ext 13229  
callendb@wcskids.net  
www.callenderchemistry.weebly.com



**Chemistry**

Dear parent/ guardian,

I would like to introduce myself as your son/daughter's Chemistry 1 teacher for the 2014-2015 school year. Should you have any questions or concerns throughout the semester please feel free to contact me by email [callendb@wcskids.net](mailto:callendb@wcskids.net) or phone 586-574-3250 ext 13229.

Chemistry 1 is a challenging course that requires a strong work ethic from students. It is imperative that students continuously review and study material, and avoid cramming for tests. Please take a few moments to review the chemistry classroom guidelines and you will see the demand students must put into class assignments and especially preparing for tests.

Please take advantage of the Parent Portal online program, available at [www.wcskids.net](http://www.wcskids.net), to monitor your student's progress throughout the semester. Also, be sure to check out the Warren Mott Website for teacher lesson plans and school information. My class page may be found directly at: [www.callenderchemistry.weebly.com](http://www.callenderchemistry.weebly.com). In addition to the class webpage, I utilize remind101. Remind 101 is a site that allows me to send texts (and/or emails) to students and parents. Please sign up for this free service that allows me to communicate important reminders (lab days, bring permission slips, etc.)

Blackboard is a virtual classroom which allows students to complete learning modules and tests outside the classroom. Please be aware that students are expected to have access to the internet. Students that do not have access at home have a wide range of options available (classroom computers, Warren Mott's study round up, school or public libraries, smart phones, or a family/friends/neighbor's computer). If you have any questions or comments about Blackboard or the internet access, please feel free to contact me. I will be glad to assist you. (Blackboard Link: [www.bb91.misd.net](http://www.bb91.misd.net))

Throughout this course students will be performing labs that require the use of hazardous materials. Students will be made aware of numerous safety guidelines, must sign a safety contract, and must pass a safety test prior to working in the lab. Before each lab the proper use of safety equipment and the handling of hazardous materials associated with the lab will be reviewed. Please be aware that accidents can and do occur and that I suggest students not wear their best or most expensive clothing on lab days.

Students that have struggled academically, especially in mathematics or Algebra I, will need to work even harder in order to be successful in chemistry. If students need additional assistance, the use of study round up and tutoring is strongly encouraged.

Sincerely,

Mr. Callender

# Mr. Callender's Chemistry 1

## 2014-2015 Class Contract

Please fill out and return this Check List along with your signed safety contract.

Have You:

### Students (initial each)

### Parents (initial each)

\_\_\_\_\_ Read the Course Expectations

\_\_\_\_\_ Read the Course Expectations

\_\_\_\_\_ Read the Safety Contract

\_\_\_\_\_ Read the Safety Contract

\_\_\_\_\_ Signed the Safety Contract

\_\_\_\_\_ Signed the Safety Contract

\_\_\_\_\_ Read the letter from the instructor

\_\_\_\_\_ Read the letter from the instructor

I \_\_\_\_\_ (Print student name) understand that in order to do well in **Chemistry 1** it will take a commitment on my part to be successful. This includes coming to class prepared, completing all tasks, participating in class, and reviewing and studying for all assessments.

Signed: \_\_\_\_\_ (Student signature) Date: \_\_\_\_\_

I \_\_\_\_\_ (Parents please print your name) have received and read the entire packet of course expectations for **Chemistry 1** and will commit to continuous monitoring of my son's/daughter's progress via Parent Portal and communicating with the teacher regarding any questions or concerns. *(Please realize that concerns should be brought to the attention of the teacher as soon as possible so they may be addressed, do not wait until the end of a term or after a term when grades have been finalized.)*

Signed: \_\_\_\_\_ (Parent signature) Date: \_\_\_\_\_

Parent email address: (Please write clearly)

\_\_\_\_\_ @ \_\_\_\_\_

Does your son/daughter have access to a computer with internet at home?

YES

NO

**If NO**, are there extenuating circumstances that would prevent the student from being able to use a computer with internet for class use?

\_\_\_\_\_

Anything else that Mr. Callender should know?