Chemistry 2017-18

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Course Description

High school chemistry is an introduction to general chemistry, touching a bit on organic chemistry and biochemistry. The Next Generation Science Standards for California Public Schools will be followed. For a comprehensive listing of the standards please visit http://www.cde.ca.gov. This course meets the UC/CSU A-G admissions requirements. Specific areas of study include atomic and molecular structure, chemical bonds, conservation of matter and stoichiometry, acids and bases, solutions, chemical reactions, as well as nuclear processes. Guiding all this will be an emphasis on the importance of investigation and experimentation.

Course Objectives

This course offers students a way to look at the world with fresh eyes. Chemistry is all around us, on both a microscopic and macroscopic level. Critical thinking and problem solving skills will be utilized. A practical use of algebra and a new vocabulary empower students to understand matter and its many permutations. With this, the art of science, its elegance and beauty, can be appreciated. Students will:

- become comfortable users of the periodic table.
- understand the form and function of atoms and molecules.
- represent, mathematically, the concepts that nothing is truly gained or lost and, for practical purposes, that all matter can be quantified.
- comprehend that all matter is in motion.
- experience the wonder of water and ions: the role they play for us here on Earth.
- speak of temperature in terms of motion and energy.
- show chemical reactions as two-way equations, where reactants and products ebb and flow until reaching equilibrium.
- see the uniqueness of the element carbon and its function in living organisms and their by-products.
- form a basic understanding of nuclear reactions and decay.
- experiment, discuss, explore, invent, ask questions, create answers.

Classroom Procedures

- Respectfully enter, be a part of, and exit the class.
- Before entering class, turn off and stow all electronics; stow all food and drink items…water is okay to have out.
- Be in your seat with all materials out at the bell.
- Remember to properly title, date, and organize all of your work.
- Clean up around your seating area.
- Overall, honor everyone's 50 minute periods (35 minute periods on Mondays) of quality class time.

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Classroom Policies

- As in all locations on campus, the policies outlined in the OSA Student Handbook are in effect.
- General day-to-day homework is not accepted late. Late labs and projects receive 10% deductions per day late.
- Please remember, as stated in the OSA Student Handbook, cheating is not tolerated. This act will result in a zero for that assignment in addition to any disciplinary action taken by the administration.
- Please only make use of the restroom in situations of urgency and not habitually. Choose an opportune time in the flow of the class and a time when no one else is out of the room.

Materials

- Scientific calculator (separate from the one on your phone or music device)
- OSA-issued textbook (McDougall-Littell's *World of Chemistry*) to be kept at home for homework
- Lined paper or chemistry-only notebook for notes
- Chemistry-only folder, accordion file, or binder
- Assorted supplies useful for all classes: pencils (with extra lead or a sharpener), eraser, pens, set of colored markers or pencils, glue stick, ruler, safety scissors, dry erase marker and rag, index cards for study notes
- All handouts, quizzes, notes, and assignments. When we start the 2nd semester, please keep reference material from the 1st semester.
- **LAB DONATION: The science department is also requesting $20 per student. This will allow us to purchase materials that support inquiry and hands-on science. Please contact me if you are not able to provide the lab fee at this time. Receipts are available if you'd like one. I thank you in advance!**

WISH LIST FOR CLASSROOM: TISSUE, PAPER TOWELS, LIQUID HAND SOAP, LIQUID DISH SOAP, NITRILE DISPOSABLE GLOVES. THANK YOU!

Student Assessment

Separate categories and their weightings for report card grades:

INFORMAL ASSESSMENT—30%

- College and Career Readiness—10%

  Students will receive 10 points for a unit (checked periodically) for their academic "presence" in class. Students lose points for not "owning" their education and professionalism by slipping into behaviors such as being off task or refusing to do work, not starting work at the bell, being tardy to class (reminder…on time means in your seat with your materials out ready to go at the bell), not taking notes/zoning out, not being prepared/having supplies, not being a productive group/class member, etc. There are only 10 points for a reason—a 6 out of 10 is already a 60% (NC), so don't count on being able to lose a point here or there. The items in this category are bare minimum expectations of being a student.

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- Homework—10%

  The best way to practice skills and test yourself on how much you remember and understand later, after school.

  Homework is graded for effort, not correctness. I need to see VISIBLE evidence of time spent on every problem. ("I don't know," "help!", "?", or writing out the problem and simply leaving the answer blank will NOT score points.) Copying another student's homework or letting another student copy your work is not acceptable and is an example of cheating. When we go over homework as a class, it is the student's responsibility to identify areas that need review.

- Class work—10%

  This category includes short-term day-to-day individual and group work.

FORMAL ASSESSMENT—70%

- Quizzes/Tests—40%

  You should expect frequent quizzes or unit tests. These are intended to be regular check-ins of student mastery. When applicable, partial credit can be awarded for quality work that is on the right track, so never just give the answer. SHOW YOUR THOUGHTS…SHOW YOUR WORK!

- Labs/projects—20%

  Investigations both brief and more comprehensive involving lab write-ups, research, and presentations.

- Final exams—10%

  A cumulative written examination will be administered at the end of each semester which will assess a facility for understanding the material.

Make-up work for absences:

- If a student is absent on the day an assignment is due, that assignment is due immediately upon their return to school.
- If a student is absent on the day a quiz/test is given, they should make up that assessment on the scheduled make-up day upon returning to school. We move on to new material, so it is in the best interest of all that students not let assessments pile up. (NOTE: If a student is absent for a review day before a quiz/test, they will be expected to take the exam on the scheduled day as no new material will have been covered.) Students absent for a quiz/test should bring a lunch the day of the make-up so that no time is lost during the make-up lunch period.
- It is always great to contact teachers about absences. In general, students will have the same number of days to complete assignments as the number of days they were absent.
- Frequent absences can make this course more difficult than it needs to be. Please come to school!

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Extra credit: Extra credit may be given at the sole discretion of the teacher. This will not be given for the purpose of offsetting a poor work ethic earlier in the semester.

Extra help: Please arrange to see me if you have questions. I am available during office hours by appointment. Just let me know that you'd like to meet!

Course Outline for Chemistry

This is a general overview of the topics covered during the year. This outline is subject to change.

Scientific thinking (the language and math of it all)
Lab equipment, safety, write-ups
Matter
Atoms, Elements, Compounds
Periodic table
Bonds
Organic chemistry and biochemistry
Reactions
Equilibrium
Stoichiometry
Solutions
Acids and Bases
Nuclear chemistry

For your convenience, some dates to keep in mind:

Holidays and other no-school days for students (see OSA calendar for possible changes/updates):

Quarter 1

9/4, 10/13

Quarter 2

11/10, 11/20-11/24, 12/22, 12/25-12/29, 1/1-1/5, 1/15

Jan. 22-25: Finals week

Quarter 3

1/26, 2/19

Quarter 4

3/30, 4/2-4/6, 5/28

May 29-June 1: Senior finals week
June 4-8: Finals week

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"We have reviewed the entirety of this Chemistry syllabus (4 pages) together and we both understand it and will contact you with any questions."

_____ _____

PRINT Parent/Guardian name Parent Signature

_____ _____

PRINT Student name Student Signature

PLEASE ALSO SUPPLY ME WITH THE FOLLOWING CONTACT INFORMATION BY PRINTING CLEARLY:

Parent/guardian e-mail address:

_____

Parent/guardian phone number:

_____

Dear parents and guardians: E-mail is the best way for us to keep in contact about your student's progress. The internet will also allow you to track your student's grades through PowerSchool: http://powerschool.oakarts.org.

Please note: When visiting OSA's website, www.oakarts.org, you can find links to the sites listed in this syllabus and access documents, such as the OSA Student Handbook, as well as many more sites and documents. Check it out!

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