

CHEMISTRY

Lakeside High School

Teacher: Mr. Olson: (509) 340-4236 solson@9mile.org

Prerequisite: "C" or better Algebra and passing grade in previous science course

Course Description: Chemistry is the science of asking and answering questions about the particle interactions that make up all matter. Students will discover and learn chemistry through laboratory experiments, demonstrations, videos, presentations, problems solving, and other interactive lessons.

Textbook: Chemistry: Matter and Change © 2008 Glencoe McGraw-Hill

Materials: Scientific Calculator (must have log function and scientific notation), notebook, and pencil.

Units Explored:

1. Fundamentals

- Chemistry: The Science of Matter
- Analyzing Data
- Properties of Matter
- Atomic Structure
- Electrons in Atoms
- The Periodic Table and Periodic Law
- Formation of Compounds
- Chemical Bonding
- Chemical Formulas and Names

2. In-Depth Explorations

- Chemical Reactions and Equations
- The Mole
- Stoichiometry
- The Kinetic Theory of Matter
- Behavior of Gases
- Water and its Solutions
- Reaction Rates
- Chemical Equilibrium
- Acids, Bases, and pH

3. Extensions and Special Topics (with time permitting)

- Oxidation-Reduction Reactions
- Electrochemistry
- Organic/Biochemistry
- Nuclear Chemistry

<u>Evaluation:</u>	Exams and Quizzes	70 %
	Laboratories and Assignments	20 %
	Participation/Behavior	10 %

The letter grades are determined by applying the documented Lakeside H.S. grading scale.

Homework: Homework is an important part of this course. This work will consist of reading, answering questions, problem solving, lab reports, and preparing for presentations. It is important to keep up and get the assignments done on time. Assignments that are one day late will be accepted at 75% of the credit.

Makeup/Attendance: A student is allowed to make up work for excused absences only. For everyday absent a student has 2 days make-up time. Check the Assignment Board and/ or ask Mr. Olson after absence. For exams and quizzes a different version of the test will be administered.

(Students are required to maintain regular attendance to earn high school credit. As per Board Policy 3122 and 2420/2420P, students will be issued a NG (no grade) on the 13th absence. Also note that tardies in excess of 15 minutes are considered an absence.)

ASD will be required after 3 tardies. Three bathroom breaks are allowed per student per semester. If more bathroom breaks are required that student must make up the 15 min of time before or after school.

Electronic Devices: Lakeside High School policy states that cell phones are to be turned off and out of sight at all times during class time. This includes in the hallways and bathrooms during class time. Using MP3s, iPods, and other entertaining electronic devices are also prohibited during this class time.

Classroom Polices:

1. We will come to class on time and prepared. Coming to class prepared with assignments completed, eliminates stress and make the class much more enjoyable.
2. We will stay on task and focused throughout the entire class period. Time is precious – we only have one semester to learn the valuable material.
3. We will not talk or interrupt with behavior, while the teacher is speaking or someone else has the floor. Everyone at all times has the right to learn.
4. We will abide by all the safety rules of the laboratory. This will keep everything and everyone, including us, safe.
5. At the end of class we will stay seated until dismissed. We will not line up at the door or run out at the bell because the teacher may have some last minute reminders. The teacher dismisses the class not the bell.
6. We will always treat others with respect, even though we may disagree with their opinion. *“Great spirits have always encountered violent opposition from mediocre minds.”* Albert Einstein.
7. We will not be afraid to ask for help from, or to give help to, other classmates when needed. Cooperative learning is the most effective and fun way to learn.
8. **We will remember that Mr. Olson is a very approachable teacher and so willing to help out at anytime.**

STUDENT NAME _____

Date _____

LABORATORY SAFETY AGREEMENT FORM

Rules of Laboratory Conduct

1. Perform laboratory work only when your teacher is present. Unauthorized or unsupervised laboratory experimenting is not allowed.
2. Your concern for safety should begin even before the first activity. Before starting any laboratory activity, always read and think about the details of the laboratory assignment.
3. Know the location and use of all safety equipment in your laboratory. These should include the safety shower, eye wash, first-aid kit, fire extinguisher, fire blanket, exits, emergency warning system, and evacuation routes.
4. Wear a laboratory coat or apron and impact/splash-proof goggles for all laboratory work. Wear closed shoes (rather than sandals or open-toed shoes), preferably constructed of leather or similar water-impervious material, and tie back loose hair. Shorts or short skirts must not be worn.
5. Clear your benchtop of all unnecessary material such as books and clothing before starting your work.
6. Check chemical labels twice to make sure you have the correct substance and the correct concentration of a solution. Some chemical formulas and names may differ by only a letter or a number.
7. You may be asked to transfer some laboratory chemicals from a common bottle or jar to your own container. Do not return any excess material to its original container unless authorized by your teacher, as you may contaminate the common bottle.
8. Avoid unnecessary movement and talk in the laboratory.
9. Never taste laboratory materials. Do not bring gum, food, or drinks into the laboratory. Do not put fingers, pens, or pencils in your mouth while in the laboratory.
10. If you are instructed to smell something, do so by fanning some of the vapor toward your nose. Do not place your nose near the opening of the container. Your teacher will show the correct technique.
11. Never look directly down into a test tube; do view the contents from the side. Never point the open end of a test tube toward yourself or your neighbor. Never heat a test tube directly in a Bunsen burner flame.
12. Any laboratory accident, however small, should be reported immediately to your teacher.
13. In case of a chemical spill on your skin or clothing, rinse the affected area with plenty of water. If the eyes are affected, rinsing with water must begin immediately and continue for at least 10 to 15 minutes. Professional assistance must be obtained.
14. Minor skin burns should be placed under cold, running water.
15. When discarding or disposing of used materials, carefully follow the instructions provided.
16. Return equipment, chemicals, aprons, and protective goggles to their designated locations.
17. Before leaving the laboratory, make sure that gas lines and water faucets are shut off.
18. Wash your hands before leaving the laboratory.
19. If you are unclear or confused about the proper safety procedures, ask your teacher for clarification. If in doubt, ask!

Students exhibiting misconduct or disregard for safety during a laboratory period will be asked to leave the lab or will be subject to other disciplinary action.

By signing below, the student and parent or guardian indicate that they have read and have agreed to follow these "Rules of Laboratory Conduct." The student is expected to follow these rules as well as any additional printed or verbal safety instructions given by the teacher. This slip is to be returned by _____ . If a parent or guardian has any questions, please feel free to telephone _____ at _____ .

STUDENT SIGNATURE _____ DATE _____

PARENT/GUARDIAN SIGNATURE _____ DATE _____

I have read the course syllabus (the previous page).