

LINCOLN HIGH SCHOOL

ACCELERATED CHEMISTRY SYLLABUS

“The object of teaching a child is to enable him to get along without his teacher”

Welcome to accelerated chemistry! Accelerated chemistry is a first year chemistry course that moves at a fast pace. Congratulations on choosing to push yourself academically. More focus, preparation, and effort are required in accelerated chemistry as opposed to regular chemistry. A brief description of this course and other pertinent information is included on this sheet. Please read both the front and back of these sheets with your parents or guardian.

TEACHER: Mr. Jarovski (Jaws), e-mail: james.jarovski@k12.sd.us cell: 940-2835

TEXT: McGraw-Hill Education, Chemistry Matter and Change, 2013

- Offered online at <http://connected.mcgraw-hill.com>

LABORATORY MANUAL: (Additional materials will also be used)

Volz, D. and Smola, R. Investigating chemistry through inquiry: Experiments using open and guided Inquiry Approaches. First edition, 2009.

Waterman, E. L. and Thompson, S., Small-Scale Chemistry Laboratory Manual, Second edition, 1993.

University of Northern Iowa, Price Laboratory School, Cristal, 1993.

MATERIALS:

Three-ring binder
Scientific calculator

Assignment notebook
Pencil/Pens

PHILOSOPHY AND APPROACH: The LAB is the heart of the course whenever appropriate. The design of most Laboratory activities is to require the students to develop a problem solving approach on their own and to come to a group conclusion. In order to achieve this many Lab activities are done before the topic has been discussed. After completing the activity the students are encouraged to develop explanations to explain the regularities. The student tries this first in group discussion and then with the help of reading assignments and class discussion. In this first year chemistry course we try to make the material as relevant as possible and to make the learning environment fun. Another goal of accelerated chemistry is to provide a solid foundation for a first year college chemistry course/AP Chemistry. In order to maintain a student centered classroom the amount of direct instruction is kept at a minimum. This course uses the principles of chemistry to develop students' problem solving, group interaction, and critical thinking skills.

COURSE TOPICS/UNITS: (Estimated Time)

First Quarter

Atomic Structure/Nuclear Chemistry
Electron Configuration
Periodic Table/Periodicity
Ionic/Covalent/Metallic Bonding

Second Quarter

Intermolecular Forces/Forces of Attraction
Chemical Reactions
Measurements, Significant Figures
Mole
Dimensional Analysis
Chemical Formulas/Stoichiometry

Third Quarter

Thermochemistry/Energy
Earth Systems/Climate Change
Properties of Gases/States of Matter
Reaction Rates

Fourth Quarter

Solutions/Properties of Water
Chemical Equilibrium
Acids and Bases

ATTENDANCE/ MAKE-UP WORK: Students who are absent from class are responsible for obtaining class announcements/assignments from the board when they get back or if possible before they leave. A computer version of the Book along with some worksheets is available at <http://connected.mcgraw-hill.com>, students will be given their username and password during the first week of school. The following is a list of procedures for other missing/makeup work:

-Homework – Homework will be self-evaluated based on completion on time. If a student receives below a 75% on the test – homework will need to be shown to the instructor

-Labs – 10% per day for late labs up to 5 days than half credit will be given. If you are missing for a lab, you have until two days before the scheduled chapter test to make it up. All lab reports due because of excused absences will be accepted no later than one day before the chapter test.

-Tests/Quizzes – If you are missing for a quiz or a test it must be made up within 5 class days in which you are present of the originally scheduled test.

All make up labs and tests will start no later than 7:45 in the morning. During the Football and Track season I will be available only before school (7:00am). Appointments may be made with the other Chemistry Teachers to make up work after school. During the other times of the year I will be available before and after school.

LAB SAFETY: Please read the safety section at the front of your lab manual. **Note:** SAFETY GLASSES MUST BE WORN IN THE LABORATORY AT ALL TIMES. Regard every chemical as poisonous and flammable. Long hair must be pulled back to avoid catching fire and producing severe head burns. Become familiar with the safety equipment in the laboratory such as location of the fire extinguisher, eye wash fountain, safety shower, sodium bicarbonate, safety glasses, first aid kit, and fire blanket. Report any accidents to your instructor immediately. Do not bring food into the lab. At the end of each lab period, clean your equipment and lab tops. Dispose of loose paper towels in the wastebasket. Do not throw solids, acids, or bases into the sink. All substances that may be harmful to the environment must be deposited in the appropriate container!

Problems: Problem solving is extremely important if one is to master chemistry. Problems will be assigned and quizzes will be given over the problems and class discussions. In order to receive full credit for the assignment, answers to the problems must be accompanied by all of the work and units.

METHOD OF GRADING: Your grade will be weighted based on the labs, projects, tests, daily work, class participation and quizzes. The district grading scale and percent distribution is as follows:

A	100-93	Test	60%
B	92-85	Quiz	10%
C	84-76	Lab	20%
D	75-65	Homework	10% (Self - Evaluation)
F	below 65		

FINAL GRADE: Your Semester Grade will be based on the average of the two quarter grades and the semester final with the final being worth 15% of the grade. Your Second Semester Grade will be based on the average of the last two quarter grades and the final cumulative test.

Summary: Accelerated Chemistry is a fun, challenging and rewarding class. If you have any questions or concerns please feel free to address them with me at any time. I am here to do anything possible to make your experience a successful one. At anytime you need extra help you are more than welcome to come in at any time. I look forward to this year and hope that you learn to love and appreciate chemistry