Chemistry I Syllabus

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Room N-125

Course Description

Chemistry I is a laboratory science course in which students investigate the composition of matter and the physical and chemical changes it undergoes. Students use science process skills to study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy. Students explore chemistry concepts through an inquiry-based approach.

Syllabus

Topic	TechBook	Standard
Unit 1: The Atom Atomic Structure, Atomic Models, Isotopes, Electron Configuration, Nuclear Reactions, Periodic Table, Periodic Trends	2.1 2.6 2.2 10.3 2.3 3.1 2.4 3.2 2.5. 3.3	PS1.11 PS4.1 PS1.12 PS1.9 PS1.10
Unit 2: Bonding Ionic, Metallic and Covalent Bonds, Polarity, Naming, Formulas, Molecular Shapes, Acids and Bases, Molar Mass	4.1 5.1 4.2 5.2 4.3 7.2 4.4 5.4 4.5	PS1.13 PS1.14 PS2.1 PS1.8 PS1.1
Unit 3: Chemical Reactions Mole Conversions, Balancing Equations, Types of Reactions, Endothermic, Exothermic, Stoichiometry	1.2 5.3 5.4	PS1.2 PS1.3 PS1.4 PS3.3
Unit 4: Solutions Concentration and Molarity, Colligative Properties, Solubility Rate	1.1 7.1	PS1.7 PS1.1 PS1.15 PS2.2 PS2.3 PS2.4
Unit 5: Matter as Particles Classification of Matter, Physical and Chemical Properties, States of Matter, Phase Changes, Kinetic Molecular Theory, Intermolecular Forces, Heat, Kinetic Energy, Gas Laws	1.1 1.2 1.3 8.1 8.2 1.4	PS2.2 PS3.1 PS3.2 PS3.4 PS1.5 PS1.6

Required Materials

- ✓ Composition Notebook
- ✓ Chromebook
- ✓ Pencils/Pens & Notebook paper
- ✓ Scientific Calculator
- ✓ Colored pencils
- ✓ Glue stick or scotch tape (for science notebook)
- ✓ Lab fee of $20.00.

(The fee covers chemicals and materials needed for labs and activities. Students may apply for fee waiver to have the fee paid by the state if they are approved.)

Behavior Expectations

I have high expectations for all students. I expect students to achieve academically to their fullest potential. I also expect students to contribute in a ***positive*** manner to the classroom. The following is a list of classroom rules.

- Come to class prepared and with a positive attitude.
- Be respectful and polite.
- Participate – be responsible for your own learning.
- Follow directions quickly.
- Lab rules must be followed at all times.
- All school rules apply in this class.

Grading Policy

The student's overall grade is based on classwork, notebook pages, quizzes, labs, activities, projects, and unit tests. Grades are determined using the point system. Grades are given in fraction form with the points earned over the points possible. Tests count more points than individual activities but overall account for approximately 50% of the student's grade. The total number of points earned is divided by the total number of points possible to calculate a student's average.

Grades are posted to Skyward in a reasonable time after an assignment is due.

Absences and Makeup Work

In Chemistry, each new lesson builds on previously learned information. Therefore, regular attendance is essential. If you miss class, it is ***YOUR*** responsibility to get necessary make-up work. Complete all work that you missed ***within 3 days*** of your absence. If you were absent more than 5 days, see me in order to make acceptable arrangements for turning in the missed work. Any work not turned in within the acceptable time period will be recorded as a 'zero'.

Lab Assignments

Students must turn in a signed lab safety contract and pass a lab safety quiz in order to participate in the lab. They must adhere to all safety rules during labs. If they can not follow safety rules, they will be required to sit and complete the make-up lab. Students that are absent during a lab must complete the make-up lab.

Extra Help

There are a few options available if you believe you are falling behind and need extra help.

1. Come see me. I will be happy to tutor before school or after school.
2. Find a 'study buddy' from this or another class to work with after school.
3. There are numerous 'on-line' help sites including: ChemThink, ChemMatters, Khan Academy, ChemFiesta, and YouTube.