



Course Syllabus

Chemistry I

Instructor: Mrs. Laura Phillips

Course Description:

This is an advanced science class, designed to foster independent learning, good study habits, and critical thinking. This course involves a great deal of mathematical thinking and problem solving. Students are expected to work with a group, study independently, and come to class prepared to discuss, practice and ask questions.

Course Objectives:

Students will:

- Differentiate among pure substances, mixtures, elements, and compounds.
- Describe the structure of carbon chains, branched chains, and rings.
- Use the periodic table to identify periodic trends, including atomic radii, ionization energy, electronegativity, and energy levels.
- Describe solubility in terms of energy changes associated with the solution process.
- Use the kinetic theory to explain states of matter, phase changes, solubility, and chemical reactions.
- Solve stoichiometric problems involving relationships among number of particles, moles, and masses of reactants and products in a chemical reaction.
- Explain the behavior of ideal gasses in terms of pressure, volume, temperature, and number of particles.
- Distinguish among endothermic and exothermic physical and chemical changes.
- Distinguish between chemical and nuclear reactions.

Classroom Rules and Expectations:

General: Students are expected to come to class fully prepared to participate in and contribute to the scheduled activities and to adhere to the following:

1. **Be ready** for class each day.
2. **Be respectful** of yourself, others, the teacher, and the classroom.
3. **Be responsible** for your own attitude, actions, and assignments

Accommodations: Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning Laptop Utilization: Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

James Clemens High School

11306 County Line Road
Madison, AL 35756



Phone: 256-216-5313

Ext: 95202

Email: lphillips@madisoncity.k12.al.us

Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

Missed Assignments: If you are present in class but do not turn in an assignment by the due date, I will put a 0 in the gradebook. You are allowed to turn in assignments late; however, 20% of the grade will be deducted for being late. You must complete the late work google form found on Schoology for any late work turned in. **Excused** absences will be granted 3 days to complete and turn in any missed assignments. After 3 days, the assignment will be counted as late unless extenuating circumstances are discussed with me. Assignments missed due to an **unexcused** absence will be given a 0 in accordance to Madison City Schools policy. Please make sure to turn in an excuse for every absence within 3 days!

Make-Up Work Policy:

Make-up tests are only allowed for excused absences. Students with excused absences should make arrangements with Mrs. Phillips to take any missed assessments. Makeup tests should be complete within one week upon the student returning to school, unless extenuating circumstances are discussed with me. All makeup work can be found on Schoology.

Mandatory Jet-Lag

Mandatory tutoring will be required for any student whose average drops below a 70. Students will be required to see Mrs. Phillips for 30 minutes during refuel on the day administration designates Science Office Hours. I will have a schedule outside my door for additional refuel days that I am available as well.

Course Materials:

Each student will need the following individual supplies:

1. Composition notebook (at least 100 pages)
2. Writing utensil (Pencils are preferred but pens are allowed)
3. Scientific calculator (This is extremely important. A graphing calculator can also be used if you already have one.)
4. Madison City Laptop. Several assignments require the use digital simulations. If your MCS device is not in working order, please submit a ticket to Incident IQ (found on Madison City Schools Website).

If you are interested in **donating supplies** to the classroom, we are always in need of hand soap, dish soap, dry erase markers, colored copy paper and facial tissue. Any supplies brought in can earn tickets for classroom rewards.

Texts/Required Readings:

World of Chemistry, CENGAGE Learning, Zumdahl and DeCoste, 2013

James Clemens High School

11306 County Line Road
Madison, AL 35756



Phone: 256-216-5313

Ext: 95202

Email: lphillips@madisoncity.k12.al.us

Course Syllabus Chemistry I

| 18 - WEEK PLAN* | |
|-----------------|--|
| WEEK 1 | Lab Safety and States of Matter |
| WEEK 2 | Precision, Accuracy, and Confidence in Measurement |
| WEEK 3 | Relating Mass and Volume |
| WEEK 4 | Heat Transfer and Temperature |
| WEEK 5 | Heating Curves and Phase Diagrams |
| WEEK 6 | Gas Laws |
| WEEK 7 | Atoms and Molecular Structure |
| WEEK 8 | Intermolecular Forces |
| WEEK 9 | Isotopes and Electron Configuration |
| WEEK 10 | Periodic Trends and Bonding |
| WEEK 11 | Empirical and Molecular Formulas |
| WEEK 12 | Stoichiometry and Chemical Quantities |
| WEEK 13 | Chemical Quantities |
| WEEK 14 | Molarity and Solutions |
| WEEK 15 | Types of Chemical Reactions and Titrations |
| WEEK 16 | Endothermic and Exothermic Reactions |
| WEEK 17 | Equilibrium Reactions |
| WEEK 18 | Review |

* This syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions or substitutions.