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|  | **ROCORI Schools**  General Chemistry  Grade(s): 10-12  **Mr. Kron Mrs. Lamp**  685-8683 ext 4133 685-8683 ext 4132  [krond@rocori.k12.mn.us](mailto:krond@rocori.k12.mn.us) lampa[@rocori.k12.mn.us](mailto:olsonj@rocori.k12.mn.us)  <http://www.rocori.k12.mn.us/dean-kron>  http://www.rocori.k12.mn.us/amber-lamp |
| **Course Description:**  To enable all chemistry students to acquire the knowledge, learn the skills, and develop the attitudes necessary to be successful in chemistry at Rocori High School. | |
| **Power Standards:**  **Chemistry Standards**  **STEM Interactions with Society**  1. Developments in chemistry affect society and societal concerns affect the field of chemistry 2. Physical and mathematical models are used to describe physical systems  **Matter**  1. The periodic table indicates how patterns in the physical and chemical properties of elements  are related to atomic structure  2. Chemical and physical properties of matter result from the ability of atoms to form bonds  3. Chemical reactions describe a chemical change in which one or more reactants are  transformed into one or more products. 4. States of matter can be described in terms of motion of molecules. The properties and  behavior of gases can be explained using the kinetic molecular theory | |
| **Course Outline:**  **Semester One**  Lab safety, identify lab equipment  Intro to chemistry (Scientific method, branches of chemistry)  Measurement and measurement applications (Accuracy, precision, significant figures)  Chemical and Physical Properties of Matter  Classification of Matter (Elements, compounds, mixtures)  Law of Definite Composition, Law of Definite Proportions  Atomic Structure  Quantum Mechanics (Meaning of 4 quantum numbers, electron configuration)  Periodic Law and Trends on the Periodic Table (Ionization energy, electron affinity)  Ionic compounds (Naming and writing formulas)  Covalent bonding (Lewis structures, electronegativity, naming and writing formulas)  **Semester Two**  Molecular geometry (VSEPR model)  Chemical reactions (types of reactions, balancing chemical equations, net ionic reactions)  The Mole (Avogadro's number, mole conversions, empirical and molecular formulas, %  Composition)  Stoichiometry (Limiters, % yield)  States of Matter (Kinetic theory, effusion, diffusion, phase changes)  Gases (Gas laws, boyle's, charles's, ideal gas law)  Solutions (ways to express concentration, parts of a solution)  Acids and Bases (pH scale, titration lab) | |
| **Textbook / Resources:**  **Textbook:** CHEMISTRY: MATTER AND CHANGE | |
| **Materials Required:**  **A scientific Calculator is needed every day, a cell will not be allowed as a calculator** | |
| **Grading Procedures:**  1. Your grade for the trimester (2 terms) will be based on an average of your test grades,  quiz grades, homework assignments, and lab grades.  2. Each test is worth 100 points.  3. Test grades count 50 % of your grade, quizzes count 25 % , and homework and labs  count 25%.  4. Quizzes will be announced. They will cover information presented in class, reading  assignments, and labs.  5. No credit will be given for late work.  6. Grades are usually posted after each test or available on Skyward.  7. Your grade is determined using these percentages:  100 – 94 A 76 – 73 C  93 – 90 A – 72 – 70 C-  89 – 87 B+ 69 – 67 D+  86 – 83 B 66 – 63 D  82 – 80 B- 62 – 60 D-  79 – 77 C+ 59 or below F | |
| **Attendance Procedures:**  If you are absent from class getting assignments is your responsibility. Assignments  should be completed as soon as possible, usually 2 days for each day absent. Missed  labs must be made up within 2 days. | |
| **Student Expectations / Discipline Procedures:**  **Class Rules:**  1. No food or drink in class. This includes pop, chips, cookies, candy, suckers, etc.  2. No backpacks, hats, cell phones, or headsets. Leave these in your locker.  3. Be on time to class.  4. Cheating and stealing are automatic failures for the term.  5. Bring a notebook, pen or pencil, your book, and a calculator with you to class each  day. **If you forget any of these items and must leave class to get it, you will be**  **counted tardy.**  6. Be respectful of others and the equipment used in lab. | |