

Crook County School District

where students dream, learn, & succeed



<u>School</u> : Crook County High School		<u>Instructor</u> : Jeff Lowenbach
<u>Course</u> : Honors Chemistry A & B		<u>Email</u> : jeff.lowenbach@crookcountyschools.org
☐	Trimester #1	<u>Phone</u> : 541-416-6900 x3146
☒	Trimester #2	<u>Methods for Communicating with Families:</u> • Email • Phone Call • Google Classroom • Parent Square
☒	Trimester #3	
<u>Course Description</u>: The purpose of this first year honors chemistry course is to allow students to study the mechanisms of matter and chemical reactions. Upon completion of the course, the student should have a clear understanding of the chemistry content required to be successful on the NGSS science test that is administered to all students at the end of their junior year. Topics include matter and energy, atomic structure, the periodic table, chemical bonding, reactions, stoichiometry, the behavior of gasses, solutions, and acids/bases . In addition, students will explore the uses of chemistry in various careers, gain an ability to cope with chemical questions and problems related to personal needs and social issues, and have an understanding of laboratory safety. To achieve these goals, a significant amount of time will be spent in the laboratory.		
<u>Learning Standards/Targets:</u> Chemistry A • Unit 1: Scientific Measurement ○ <i>Students will be able to accurately use and convert between different units of measurement, including SI units, to quantify physical properties in scientific experiments.</i> ○ <i>Students will demonstrate the ability to apply significant figures and proper measurement techniques to report data with precision and accuracy in laboratory settings.</i> • Unit 2: Matter and Energy ○ Understand energy, its transformations, and interactions with matter. Understand the structure and properties of matter. ○ Describe how the structure and motion of particles in solids, liquids and gases affect their properties. • Unit 3: Periodic Table and Atomic Theory ○ Identify the structures of the atom and the electron configuration. ○ Explain how the properties of the elements are related to their atomic structure. ○ Explain how the properties of the elements can be predicted from their location on		

the periodic table.

- Unit 4: Chemical Bonding and Nomenclature
 - Describe how atoms combine to produce compounds with new properties through the transfer or sharing of electrons.
 - Understand how the structure and the shape of a molecule or compound influences their physical and chemical properties.

Chemistry B

- Unit 5: Chemical Reactions
 - Investigate factors that influence chemical reaction rates, such as concentration, temperature, pressure and the presence of a catalyst.
- Unit 6: Stoichiometry
 - Write balanced chemical equations and utilize stoichiometric calculations.
 - Utilize the concept of the mole in chemical calculations.
- Unit 7: Properties of Gases
 - Demonstrate an understanding of the qualitative and quantitative properties of gases using both the ideal and combined gas laws.
- Unit 8: Solution Chemistry
 - Demonstrate an understanding of the qualitative and quantitative properties of solutions using molarity, molality, percent by mass, and colligative properties.
 - Students will be able to differentiate between solutes and solvents and describe the process of dissolving at the molecular level
- Unit 9: Acids & Bases
 - Demonstrate an understanding of the qualitative and quantitative properties of acids and bases.
 - Students will explain the concept of pH and pOH, and be able to calculate the pH of a solution given the concentration of hydrogen ions or hydroxide ions

Instructional Materials:

- Inspire Chemistry
- Films, Videos/Other Electronic Media:

Bozeman Science Chemistry

<http://www.bozemanscience.com/chemistry>

Crash Course Chemistry

<https://thecrashcourse.com/topic/chemistry/>

American Association of Chemistry Teachers (AACT)

<https://teachchemistry.org/classroom-resources>

Making Stuff - NOVA

<https://www.pbs.org/wgbh/nova/series/making-stuff/>

All Instructional Materials must comply with CCSD School Board [Policy IIA](#) & [Policy IIA-AR](#). A copy of core and supplemental curriculum will be available in the curriculum office for review.

A classroom teacher receiving a complaint regarding instructional materials shall try to resolve the issue informally through the discussion of the original assignment or the opportunity for an alternative assignment.

Notification of the Right to Object to the Use of Material:

[CCSD School Board Policy IIA-AR](#): Any resident of the district may raise objection to instructional materials used in the district's educational program despite the fact that the individuals selecting such materials were duly qualified to make the selection and followed the proper procedure and observed the criteria for selecting such material.

The first step in expressing objection to materials is consultation with the classroom teacher or library staff and providing a written complaint. The district official or staff member initially receiving a complaint shall explain to the complainant the district's selection procedure, criteria and qualifications of those persons selecting the material. A classroom teacher receiving a complaint regarding instructional materials shall try to resolve the issue informally through the discussion of the original assignment or the opportunity for an alternative assignment. The materials shall remain in use unless removed through the procedure in section 4. F. (2) of this regulation.

The teacher or library staff receiving the initial complaint shall advise the principal of the initial contact within 24 hours, whether or not the complainant has apparently been satisfied by the initial contact. A written record of the contact shall be maintained by the principal and sent to the superintendent's office.

In the event that the person making an objection to material is not satisfied with the initial explanation or an alternative assignment, the person raising the questions will meet with a building administrator who will provide a Request for Reconsideration form.

Citizenship, Classroom Rules, Behavior Expectations:

- The Board expects student conduct to contribute to a productive learning climate. Students shall comply with the district's policies, administrative regulations, school and classroom written rules, pursue the prescribed course of study, submit to the lawful authority of teachers and school officials and conduct themselves in an orderly manner during the school day and during district-sponsored activities.

Careful attention shall be given to procedures and methods whereby fairness and consistency without bias in discipline shall be assured to each student. The objectives of disciplining any student must be to help the student develop a positive attitude toward self-discipline, realize the responsibility of one's actions and maintain a productive learning environment.

- See [CCSD Board Policy JFC](#) for more details.
- **Attendance:** This class will follow Crook County High School attendance and tardy policies. **You must be present to be successful in Honors Chemistry A & B.** If you are planning on missing class often (hunting, family vacations, illness) honors chemistry A & B will be much more difficult.
- **Participation:** Chemistry is a lab-based class. NO FOOD OR DRINK WILL BE PERMITTED IN THE CLASSROOM. Bottled Water is the exception. No cell phones or other electronic devices are to be used during class time without instructor permission.

Grading System:

- *The district's grading system shall be based on Board-adopted course content and is designed to enable the student and parent to clearly know how well the student is achieving course requirements at the student's current grade level or course content level, and be based on the student's progress toward mastery of a continuum of knowledge and skills outlined in Oregon State Standards. Absenteeism or misconduct shall not be the sole criterion for the reduction of students' grades. Behavioral performance shall be reported separately. The district will use letter grades (A,B,C,D,F) that can be converted into a 4 to 0 reporting system in grades 6-12. All AP courses are graded on a 5.0 grading scale.*
- *Grades will be based on many factors, such as: basic instructional assignments, both oral and written; results from various assessment instruments, including critical content short cycle assessments as well as quizzes and exams; class participation; special assignments; research; activities of various types of kinds and special contributions.*
- *See CCSD School Board [Policy IKA](#), [Policy IK](#), & [Policy IK-AR](#) for more details.*

Grading Scale:

- A+: 100-98 A: 97-93 A-: 92-90
- B+: 89-88 B: 87-83 B-: 82-80
- C+: 79-78 C: 77-73 C-: 72-70
- D+: 69-68 D: 67-63 D-: 60-62
- F: 59-0

Course Grading Criteria/Weighting: To earn credit this trimester, the student must have a minimum class average of 60%. The grade will be calculated based on the proficiency model below:

- **Content Assessments (65% of grade):** Assessments will be given at least one time throughout each unit of study. Assessments will include exams, quizzes, and projects that ultimately demonstrate each student's level of proficiency.
- **Lab Assessments (25% of grade):** Lab assessments will be given throughout each unit of study and will include formal lab write-ups and projects to show a student's level of proficiency in a given topic.
- **Online/Classwork/Homework (10% of grade):** Classwork will be assessed using your interactive notebook. All classwork, homework, and notes will be organized in your INB and is intended to increase the level of proficiency and prepare each student for upcoming assessments.

**[Policy IK-AR](#): Achievement of learning standards will be assessed separately from behavior.*

Make Up Policy:

- 1) **Assessment Retakes:** [Policy IK-AR](#) Teachers will provide students with multiple opportunities to demonstrate mastery of each standard. Students will be provided with at least two opportunities to retake assessments. A student who retakes an assessment will not be penalized. Teachers can modify assessments (more rigorous to account for greater time allowed for preparation.) Teachers will determine student requirements for assessment retakes that align with Policy IK-AR.
- 2) **Homework/Daily Work:** Achievement of learning standards will be assessed separately from behavior (i.e. attendance, disruption, late work, tardiness, preparation, effort, attitude, etc.). Teachers may set guidelines around submission timelines, as this category is tied to learning progress, please refer to policy IK-AR.

