Deer Valley Unified School District No. 97

BOULDER CREEK HIGH SCHOOL
40404 N. Gavilan Peak Parkway ❖ (623) 445-8600 ❖ Fax: (623) 445-8680
❖ bchs.dvusd.org

Course: Chemistry
Teacher: Mr. Barker
Room: 506

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Canvas: https://dvusd.instructure.com/
Office Hours: appointment and FLEX Time

Textbook- Chemistry – Matter and Change (author Glencoe/McGaw Hill) text/cd is available for checkout at the Bookstore, not required and you may keep at home.
AND the Online connectED Chemistry textbook is posted in Canvas under the connectED tab. You must turn OFF pop up blocker in order to open the book, then MOVE IT TO YOUR iBOOKS for the future (its quicker)

Science Materials: *Be prepared* for class everyday by having a writing utensils (including several highlighters), Spiral Paper Notebook (Bellwork, Notes, Labs), loose leaf notebook paper, white board markers

Course Description- This course will cover in-depth topics such as the periodic table, dimensional analysis, stoichiometry, thermodynamics, and how chemistry pertains to our everyday lives.

Course Standards:

BCHS Essential Standards Chart: What Is It We Expect BCHS Students To Learn?

Grade:	10, 11, 12	**Subject/Department**:	Chemistry	**Semester**:		**Team Members**:	

Description of Standard What is the essential standard to be learned? Describe in student friendly vocabulary.	**Example of Rigor** What does proficient student work look like? Provide an example/ description.	**Prerequisite Skills** What prior knowledge, skills, and/or vocabulary is needed for a student to master the standard?	**When Taught?** When will this be taught?	**Common Formative & Summative Assessments** What assessment(s) will be used to measure student progress and mastery?	**Extension Standards** What will we do when students have already learned this standard?
Structure of Atoms	• Explain how to determine the number of electrons, protons, and neutrons. • Explain the difference between ions and atoms and isotopes. • Explain Dalton's Atomic Theory.	Algebra skills Little pre-course knowledge is expected	1st	Chapter Test created from common question banks per standard	Practice and revisit periodically

Elements/Compounds Atoms/Molecules	• Know the difference between elements, compounds, atoms, and molecules. • Identify molecular compounds vs. ionic compounds. • Be able to identify elements on the periodic table.	Algebra skills Little pre-course knowledge is expected	1st	Chapter Test created from common question banks per standard	Practice and revisit periodically
Formulas and Naming Compounds	• Describe how to name ionic and molecular compounds. • Describe how to write chemical formulas • Describe how to name covalent compounds. • Define the term acid and how it is named. • Demonstrate how oxidation numbers help when writing formulas and naming compounds.	Algebra skills Little pre-course knowledge is expected	1st	Chapter Test created from common question banks per standard	Practice and revisit periodically
Changes in Matter	• Compare and contrast heterogeneous and homogeneous mixtures. Identify and describe techniques used to separate mixtures. • Give examples of physical properties, physical changes, chemical properties, and chemical changes.	Algebra skills Little pre-course knowledge is expected	1st	Chapter Test created from common question banks per standard	Practice and revisit periodically
Concentration	• List the properties of solutions and describe the various types. • Explain the concentration in terms of molarity, molality, and mole fraction. • Explain the difference between saturated,unsaturated, and supersaturated solutions.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically
Balancing Equations	• Distinguish between reactants and products. • Complete and balance chemical equations.	Algebra skills Little pre-course knowledge is	1st	Chapter Test created from common question banks per standard	Practice and revisit periodically

	• Explain how a balanced equation demonstrates the Law of Conservation of Matter.	expected			
Equilibrium	• Describe a reversible reaction. • Explain chemical equilibrium and how equilibrium position is achieved. • Determine the equilibrium constant for a reaction. • Analyze how changes in pressure, concentration, and temperature affect a reaction at equilibrium.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically
Math of Equations	• Identify and use Avogadro's number. • Explain how to convert the number of particles, moles, the mass of a given substance, and the molar volume of gas. • Explain how to find the percent composition from a given formula and use it to find the empirical formula. • Identify and solve different types of stoichiometry problems.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically
Acids, Bases	• Define acids and bases. • Describe the similarities and differences in physical and chemical properties of acids and bases. • Define PH and understand the PH scale. • Explain buffers • Explain acid-base titration. • Define Arrhenius, Bronsted-Lowry, and Lewis acids and bases.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically

Thermodynamics/ Thermochemistry	• Explain what is meant by a spontaneous process. • Define entropy and enthalpy. • Explain Gibbs free energy. • Describe the difference between exothermic and endothermic. • Explain how heat is defined by the kinetic theory. • Explain heat capacity and specific heat of a substance. • Apply Hess's Law.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically
Oxidation and Reduction	• Explain what oxidation and reduction numbers are and describe how they're assigned. • Solve a redox equation.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically
Gases	• Describe the nature of gases and recognize their properties. • Explain what gas pressure means. • Describe the kinetic molecular theory and how it accounts for gas behavior. • Explain the relationships described by Boyle's Law, Charles' Law, Avogadro's Law, and Dalton's Law.	Algebra skills Little pre-course knowledge is expected	2nd	Chapter Test created from common question banks per standard	Practice and revisit periodically

Grading Policy

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = below 60%

SEMESTER GRADE POINTS

10% Homework
20% Labs
20% Quizzes
50% Exams

The semester grade is a cumulative grade. A student's grade will be a direct reflection of only what they know and will not take into account chosen behaviors. Students will still be held accountable for behaviors such as turning work in late and cheating, but it will not be reflected in their grades.

The PowerSchools site allows parents/guardians and students to access the student's grades, attendance, and other information. If you need your access information, please stop by the front desk during business hours. You will need a photo I.D. The web address is: http://ps.dvusd.org/public

Communication- Please contact the teacher with any student/material/personal concerns. It is crucial that teachers, parents, and students maintain open lines of communication. Contact information listed above.

One to One iPad Initiative

This year every student will be issued an iPad. It is an instructional tool, and not a gaming device. The iPads are locked down and access to many apps is restricted. They will be managed as an instructional tool, and will only be a portion of the in class instruction. There will be videos to watch, and exercises and homework to complete. Students are expected to plug it in every night so they show up to school with it fully charged. If they do not have a functioning iPad in class, there will be accommodations made, but it will not function as smoothly.

** Apps to download- Notability, Google apps (Drive, Docs, Sheets, Slides, Chrome), Apple apps (Pages, Keynote, Numbers, iMovie), ScanPro.

Canvas Access

During this course students will need to access, upload and download content from our class website which can be accessed at dvusd.instructure.com In the event a student does not have personal access to the internet, the Maricopa County Library offers free after school and lunch time access. Please be sure to plan ahead as necessary. You will need to have a library card.

Adherence to the Boulder Creek Academic Integrity Code

All students enrolled in Honors Chemistry will adhere to the framework and guidelines set forth in the Boulder Creek High School Academic Integrity Code. Cheating and Plagiarism will not be tolerated. The purpose of this code is to promote a positive learning environment for all involved. As humans, we will make mistakes as we grow. It is understood that we can learn from those mistakes and become better individuals in the future. Any student who violates this code will be referred to the Students Rights and Responsibilities handbook and assignment of appropriate consequences. *Please refer to the Academic Integrity Code in your student handbook for more details.*

MAKE-UP WORK POLICY: Upon return to class after an absence, a student has one school day for each day missed to make up work/test assigned during his/her absence regardless of the number of days absent. For example, if a student is absent on Thursday and Friday, he/she will have Monday and Tuesday of the following week to make up work and must turn in the work that was assigned during the days absent on Wednesday. It is the student's responsibility to check with Canvas and teacher as soon as possible for work missed and possible adjustment of due dates. All work is due by the end of the Unit, prior to the Unit exam. Work not turned in on the due date will be marked with a zero. Once work has been turned in due to absence or lateness, the assignment will be scored as normal and the zero will be removed. Once the unit test has been given, the assignments will close and will not be reopened.

Retakes: Retakes must be scheduled with your teacher. Second attempts at a test are allowed with the following guidelines: test retakes must be before the end of the quarter, during flex time and a completed study guide or notes of unit exam content completed. Check Canvas or contact the teacher for office hours.

CLASSROOM BEHAVIOR EXPECTATIONS AND CONSEQUENCES: The policies from the Student Rights and Responsibility handbook are identical to those when you are under my supervision.

1. All other classroom "norms" will be discussed with the following in mind…
    - Boulder Creek and its inhabitants deserve RESPECT! (other students/teachers/lab materials/building)
    - Come to class prepared (materials, brains engaged in science, positive attitude, do your best)
    - No visible or in-use electronics beyond your issued iPad.
    - Positive attitudes are welcome ☺. Do not swear or use unprofessional "s" words" (shut up, stupid).

- No food or drink.
- Late work will be turned in prior to end of unit exam.
- Retakes for formative and summative exams are available, by appointment.

Classroom Behavior Expectations and Consequences- PBIS

	Learning Environment
Prepared	• Bring materials • Come prepared to learn
Respectful	• Respect others, their property, equipment, and the facility
Integrity	• Complete your own work • All electronic devices are off and out of sight
Discipline	• Arrive on time & be in your seat • Behave appropriately and use courteous language • Keep food and drink outside
Everyone United	• Encourage confidence • Cooperate and collaborate

Science Laboratory Breakage Policy: According to BOULDER CREEK HIGH SCHOOL and the DEER VALLEY UNIFIED SCHOOL DISTRICT the following policy on laboratory breakage will be as follows.

Breakage Policy: Laboratory investigations are a crucial part of science investigations. Without science equipment, labs and projects are very difficult to perform. Due to costs, students will check- out equipment and tools to use in lab. If a student breaks something, he or she will be held responsible for paying a replacement fee. This is designed to reinforce that the students follow instructions and use care when using equipment. Many of the process are included; however the list is not limited to only these items. Students are responsible for paying the breakage fee at the bookstore.

Beakers			
10ml	$ 5.00	250ml	$ 4.50
50ml	$ 4.50	400ml	$ 5.50
100ml	$ 4.50	600ml	$ 6.50
150ml	$ 4.50	1000ml	$ 12.50
Buret			$ 19.75
Buret Tip Replacement			$ 1.78
Crucibles			$ 3.21
Crucible Covers			$ 5.80
Dropping Bottles			$ 9.00
Eudiometer Tube 50ml			$ 30.60
Evaporating Dishes			$ 10.76
Glass Rod			$ 0.50
Medicine droppers			$ 0.50
Meter Stick			$ 4.50
Metric Ruler			$ 4.50

Mortars (glass)		$ 14.40
Mortars (porcelain)		$ 10.00
Pestles		$ 5.00
Prepared Slide		$ 5.00
Spot Plate		$ 14.95
Test Tube		
	10mm	$ 0.50
	13mm	$ 0.50
	15mm	$ 0.80
	20mm	$ 1.00
	25mm	$ 2.00
Thermometer (20-110 c)		$ 4.70
Triple Beam Balance		$ 120.00
Watch glasses		$ 2.15
Vernier interfaces/ Probes		$325.00 $65-$165