### Course Outline General Chemistry Citrus Valley High School

**Instructor:** Dr. Stover **Email**: michelle\_stover@redlands.k12.ca.us

Classroom: E144 Ext#: 35544

### **Letter to Parent(s)/Guardian:**

Welcome to Chemistry. My name is Dr. Stover and I will be your son's/daughter's Chemistry teacher this year. I am delighted to have your student in my class. I plan to help all my students acquire a deep and rich understanding of chemistry and of its real-life application around them. I want to teach them the knowledge and skills they need to gradually transition from school work to real world work in order to become responsible young adults. I am looking forward to working with you to make this school year an excellent learning experience for your student.

**About Chemistry:** Chemistry is a college preparatory science course. Because the study of chemistry is an abstract subject, students may feel a greater sense of anxiety than in previous high school course work. Many students feel overwhelmed and find it difficult to keep up. It is essential that students attend class every day and arrive on time and prepared. Students should be studying **every night** whether or not a specific assignment has been given.

**Course Textbook:** Modern Chemistry by Sarquis and Sarquis

**Additional Resources:** ChemQuest

**POGIL** 

**Online Resources: dosctover.org (class website)** 

sciencegeek.net (interactive review)

**Khan Academy** 

CK-12

**Ed: Your Friend in Learning** 

Required Materials: Five-Subject Spiral Bound Notebook

Dark blue or black pens, #2 pencils

Highlighter (any color)

Red Pens

Loose leaf paper Scientific Calculator Elmer's Glue Sticks **Class Rules:** Department, school, and district rules and procedures are strictly enforced in the classroom and campus at all times.

- 1. All students are expected to follow the school-wide classroom policies.
- 2. Be on time to class. You must be in the room and in your seat at the time the bell rings.
- 3. Bring required materials daily.
- 4. Respect other students, the teacher, aides, and the classroom environment as a whole.
- If any student persists in the inhibition of the learning of other students, he/she will be removed from the class.
- -Please keep all music devices, cellular phone and other electrical devise -There is no grooming in the classroom, items will be confiscated.
  - 5. Please follow teacher's directions and exhibit an on-task behavior
    - -Students must know and shall follow correct laboratory safety procedures.
  - 6. Absolutely no cheating.
    - -Any form of talking during a test is considered cheating.

Those who violate this rule will automatically get zero and will be held accountable to the fullest extent.

**Grading System**: Grades are calculated as an average of total points earned over points as follows:

Assessment (unit or chapter tests)	45%
Classwork (quizzes, labs, class participation, projects, )	20%
Interactive Notebook (INB)	25%
Final Exams =	10%

An overall grade from:

100%-98% is an A+; 97%-94% is an A; 93-90% is an A-; 89%-87% is a B+; 86%-84% is a B; 83%-80% is a B-; 79%-77% is a C+; 76%-74% is a C; 73%-70% is a C-; 69% and below is a non-proficient grade.

**Interactive Notebook (INB)**: All notes with accompanying videos are posted on the class website. Students will create their own notes on their spiral notebook. They will be graded on the posted due date with a stamp. **NO LATE NOTES.** <u>After a week that the INB is not turned in, a grade of zero will be given.</u>

#### **Absences**

Daily attendance is essential because each lesson is important in understanding succeeding lessons. For excused absences, students will be given **one day** to complete work missed. After that day, **late work gets half a credit**. **After the first week, late work will not be accepted and will get a grade of zero.** Weekly calendar will be

provided on the class website and in class so that students don't fall behind. Everyone is expected to come prepared for the class.

Assignments: All assignments must contain a title, name, date, and period in the heading. Homework will be due the following day unless otherwise specified and will be stamped. Late work automatically gets half a credit. After a week that a homework is not turned in, a grade of zero will be given.

Test and Quizzes: Quizzes will be given periodically and may be announced or unannounced to check for progress. Unannounced quizzes will be taken with open notes. It is the responsibility of the student to get the notes that were missed during an absence (they are posted on the class website.) Unit tests are given at the end of each unit/chapter. Quizzes may or may not be made up. After a week that a quiz/test is not made up, a grade of zero will be given.

**Lab:** Format for writing lab reports must be followed at all times. They are due at the end of each lab, or when specified. Due to the nature of labs, it is extremely important that you be here on lab days. Labs involve chemicals and equipment that may be available on lab days only.

**Project:** A major project (either per individual or as group) may be assigned at least once a semester if time permits.

Make-up Work: It is the responsibility of the student to obtain assignments missed due to excused absences. Unexcused absences or truancy will not be given the opportunity to make up unless cleared by attendance All assignments and class work are posted on the website. Make-up homework is due a day after the student returns to class following an absence. Late work automatically gets half a credit After a week that a work is not made up, a grade of zero will be given.

Lab Make-up: To make up missed lab, the students must find and read one chemistry related article related to the missed lab and write a one page summary of the article. This is due within the week of the missed lab. Late work automatically gets half a credit. After a week that a lab is not made up, a grade of zero will be given.

**Extra Credit Work:** Some extra credit work will be available throughout the year. Options will be discussed at a later date. **Students must have all required assignments completed before working on extra credit.** 

# Schedule

This is the planned schedule for the year. It may or may not work depending on school activities that day. Otherwise, the test dates are set for your planning purposes. Use the resources available to you.

## **First Semester**

Unit	Topics	<b>Unit Test</b>	Resources to Use
1	<ul> <li>Combustion</li> <li>Introduction to Chemistry</li> <li>Matter and Its Properties</li> <li>Scientific Method</li> <li>Units of Measurement</li> <li>Using Scientific Measurements</li> </ul> Labs/Activities <ul> <li>Combustion Lab</li> <li>Measure, Measure, Measure</li> <li>Soda Density Lab</li> </ul>	TBA	Modern Chemistry: Chapter 1 (Section 1.1 and 1.2) Chapter 2 Chapter 8 (Section 8.1) Chapter 16 (Section 16.1) Worksheets: ChemQuest POGIL Online: Class website pHet simulations Ed: Your Friend in Learning
2	Atoms  Atomic Theories  The Structure of the Atom  Counting Atoms  The Development of New Atomic Model  The Quantum Model of the Atom  Electron Configurations  History of the Periodic Table  Electron Configuration in the Periodic Table  Electron Configuration and Periodic Properties  The Nucleus  Radioactive Decay  Nuclear Radiation  Lab/Activities:  M & M Model of the Atom	TBA	Modern Chemistry: Chapter 3 Chapter 4 Chapter 5 Chapter 21 Worksheets: Class website ChemQuest POGIL Online: pHet simulations Ed: Your Friend in Learning

3	<b>Chemical Reactions</b>	TBA	Modern Chemistry
	<ul> <li>Introduction to Chemical Bonding</li> <li>Covalent Bonding and Molecular Compounds</li> <li>Ionic Bonding and Ionic Compounds</li> <li>Metallic Bonding</li> <li>Molecular Geometry</li> <li>Chemical Names and Formulas</li> <li>Oxidation Numbers</li> <li>Using Chemical Formulas</li> <li>Determining Chemical Formulas</li> <li>Describing Chemical Reactions</li> <li>Types of Chemical Reactions</li> <li>Activity Series of the Elements</li> <li>Introduction to Stoichiometry</li> <li>Ideal Stoichiometric Calculations</li> <li>Limiting Reactants and Percent Yield</li> <li>Macromolecules</li> <li>Labs/Activities:         <ul> <li>Types of Chemical Reactions</li> <li>Mole Stations Lab Stoichiometry of S'mores</li> </ul> </li> </ul>		Chapter 6 Chapter 7 Chapter 8 Chapter 9 Chapter 22 Worksheets: ChemQuest POGIL Online: Class website pHet simulations Ed: Your Friend in Learning
	<ul> <li>Determining Chemical Formulas</li> <li>Describing Chemical Reactions</li> <li>Types of Chemical Reactions</li> <li>Activity Series of the Elements</li> <li>Introduction to Stoichiometry</li> <li>Ideal Stoichiometric Calculations</li> <li>Limiting Reactants and Percent Yield</li> <li>Macromolecules</li> </ul> Labs/Activities: <ul> <li>Types of Chemical Reactions</li> <li>Mole Stations Lab</li> </ul>		pHet simulations

## **Second Semester**

Unit	Topics	<b>Unit Test</b>	Resources to Use
4	Heat and Energy in the Earth's System	TBA	Modern Chemistry
	and Reaction Energy		Chapter 16
	<ul> <li>Thermochemistry</li> </ul>		Chapter 17
	<ul> <li>Driving Force of Reactions</li> </ul>		Worksheets:
	The Reaction Process		ChemQuest
	Reaction Rate		POGIL
			Online:
	Lab/Activities:		Class website
	Calorimetry Lab		pHet simulations
	Rate of Reaction		Ed: Your Friend in Learning
	1 10		
5	Atmosphere/Gas Laws	TBA	Modern Chemistry
	<ul> <li>Gases and Pressure</li> </ul>		Chapter 11
	<ul> <li>The Gas Laws</li> </ul>		Chapter 12
	<ul> <li>Gas Volumes and Ideal gas laws</li> </ul>		Worksheets:
	Diffusion and Effusion		ChemQuest

	Types of Mixtures		POGIL
	<ul> <li>The Solution Process</li> </ul>		Online:
	<ul> <li>Concentration of Solutions</li> </ul>		Class website
			pHet simulations
	Labs/Activities:		Ed: Your Friend in Learning
	Gas Law Station Lab		
	Molar Volume of Gas		
	Molarity Lab		
6	Equilibrium/Acids and Bases	TBA	Modern Chemistry
	<ul> <li>Properties of Acids and Bases</li> </ul>		Chapter 14
	<ul> <li>Acid-Base Theories</li> </ul>		Chapter 15
	<ul> <li>Acid-Base Reactions</li> </ul>		Chapter 18
	<ul> <li>Aqueous Solutions and the</li> </ul>		Chapter 19
	Concept of pH		Worksheets:
	<ul> <li>Determining pH and Titrations</li> </ul>		ChemQuest
	The Nature of Chemical		POGIL
	Equilibrium		Online:
	ShiftingEquilibrium		Class website
	<ul> <li>Equilibria of Acids, Bases and</li> </ul>		pHet simulations
	Salts		Ed: Your Friend in Learning
	Solubility Equilibria		
	Oxidation and Reduction		
	Balancing Redox Reactions		

## Sign Sheet Section to be turned in

Please fill in the following information and provide phone number(s) where I can contact you or leave a message concerning your student. Please include email if available because I find this a very useful tool of communication also.

Student's name:	
Father's name:  Contact Number:  Email:	
Mother's name: Contact Number: Email:	
Please list any information that I should be aware of that recertain class or laboratory activities. Thank you.	nay limit participation in
Chemistry	
"My son/daughter and I have read the student behavior co these rules, or as a parent, help my student to keep these re- for them to work, encouraging them to do their best, comp well, seeing that they get enough sleep at night, and get a morning."	ales by: providing a quiet place blimenting them when they do
Student Name:	_
Period:Student Signature:	
Parent/Guardian Signature:  Date:	