

**Teacher: Kristi Castro**

Class: Chemistry

**Semester: Fall****Date: 2004**

	<b>Unit I: (12 class days)</b> Date: 8/16 – 9/1	<b>Unit II: (21 days)</b> Date: 9/2 – 9/30	<b>Unit III: (16 days)</b> Date: 9/31 – 10/22	<b>Unit IV: (14 days)</b> Date: 10/25 – 11/12
Topics	<ul style="list-style-type: none"> <li>What is Chemistry?</li> <li>Safety</li> <li>Measurements</li> <li>Density and temperature</li> <li>Conversions</li> <li>Scientific Notation</li> <li>Graphing</li> </ul>	<ul style="list-style-type: none"> <li>Matter: mixtures and substances</li> <li>Physical/chemical changes and properties (phase changes)</li> <li>The atom: protons, neutrons, electrons, ions, isotopes</li> <li>Elements &amp; compounds</li> <li>Molecular and ionic compounds (balancing and naming)</li> </ul>	<ul style="list-style-type: none"> <li>The Mole (conversions)</li> <li>Molar Mass</li> <li>Empirical/Molecular formula</li> <li>% Composition</li> <li>Molarity</li> </ul>	<ul style="list-style-type: none"> <li>Chemical Reactions</li> <li>5 main types of chemical reactions</li> <li>Balancing Chemical Equations</li> </ul>
Standards	<ul style="list-style-type: none"> <li>Investigation and Experimentation 1: a,b,c,d,e</li> <li>Chemistry 4: e,f</li> </ul>	<ul style="list-style-type: none"> <li>Chemistry 1: a,b,c,d,e,f,</li> <li>Chemistry 6: f</li> </ul>	<ul style="list-style-type: none"> <li>Chemistry 3: b,c,d</li> </ul>	<ul style="list-style-type: none"> <li>Chemistry 3: a</li> </ul>
Lecture Notes	<ul style="list-style-type: none"> <li>Powerpoint notes on sections: 1.1-1.2 (What is chemistry?) 3.1 (Quant. Vs Qual.) 3.2 (Accuracy, Precision, Error) 3.3-3.5 (Metric System) 4.2-4.3 (Rate conversions)</li> <li>Overhead notes: Graphing Variables</li> </ul>	<ul style="list-style-type: none"> <li>Powerpoint notes on sections: 2.1-2.2 (Matter: mixtures vs. substances) 2.3-2.4 (Elements and Compounds + Conservation of Mass) 5.3-5.4 (Atomic Structure) 6.1-6.2 (Ions &amp; electrons) 6.3-6.5 (Naming Compounds: Ionic, Molecular, and Acids)</li> <li>Overhead notes: Separation techniques Families of the Periodic Table</li> </ul>	<ul style="list-style-type: none"> <li>Overhead Notes on: 7.1 (The mole) 7.2 (molar mass) 7.3 (% composition) + The "Mole Mall"</li> </ul>	<ul style="list-style-type: none"> <li>Overhead notes on: 8.1 (Writing and balancing equations) 8.2 (5 Types of chemical reactions)</li> </ul>
Readings	<ul style="list-style-type: none"> <li>Text: 2-14 51-62</li> </ul>	<ul style="list-style-type: none"> <li>Text: 28-34 36-43 161-162</li> <li>Article: "The Poisoned Needle" (about separation techniques)</li> </ul>	<ul style="list-style-type: none"> <li>Text: 171-180 182-186 188-194</li> </ul>	<ul style="list-style-type: none"> <li>Text: 203-209 212-223</li> </ul>
Homework	<ul style="list-style-type: none"> <li>Define 5 branches of chem</li> <li>scientific notation wkst</li> <li>sig figs wkst</li> <li>metric system conv. Wkst</li> <li>conversions wkst.</li> <li>Unit I review sheet</li> </ul>	<ul style="list-style-type: none"> <li>2.1-2.2 wkst</li> <li>Book review questions pg 35,40, &amp;43 (#7-23)</li> <li>Phys/Chem Properties wkst</li> <li>Element symbols &amp; atomic structure wkst</li> <li>Ch5-6 packet</li> <li>Naming wksts #1,2,3</li> </ul>	<ul style="list-style-type: none"> <li>Molar mass wkst</li> <li>Moles-grams wkst</li> <li>Moles-volume wkst</li> <li>Mixed mole problems wkst</li> <li>Empirical formulas wkst</li> <li>Molecular formulas wkst</li> <li>% Composition wkst</li> <li>molarity wkst</li> </ul>	<ul style="list-style-type: none"> <li>balancing chemical reactions wkst</li> <li>decomposition wkst</li> <li>synthesis wkst</li> <li>single/double replacement wkst</li> <li>mixed rxns wkst</li> </ul>
Labs & Projects	<ul style="list-style-type: none"> <li>Metric Measurement Lab</li> <li>Aluminum foil Lab (measuring the thickness)</li> </ul>	<ul style="list-style-type: none"> <li>PDB Lab</li> <li>Separation Lab</li> <li>Model Kit Lab</li> </ul>	<ul style="list-style-type: none"> <li>Hydrate Lab</li> </ul>	<ul style="list-style-type: none"> <li>Double Replacement Lab</li> <li>Activity Series Lab</li> </ul>
AV, Internet	<ul style="list-style-type: none"> <li>Computer Lab: How to make Excel Graphs</li> </ul>	<ul style="list-style-type: none"> <li>Excel graph with PDB lab</li> </ul>		
Demos		<ul style="list-style-type: none"> <li>Growing Balloon: Chemical reaction of Zn with HCl</li> </ul>	<ul style="list-style-type: none"> <li>CD Rom Demo</li> </ul>	<ul style="list-style-type: none"> <li>Decomposition of Sucrose</li> </ul>
Special	<ul style="list-style-type: none"> <li>Labor Day (9/6)</li> <li>Bill Nye on Measurement</li> <li>Review Bingo</li> </ul>	<ul style="list-style-type: none"> <li>Review Bingo</li> </ul>	<ul style="list-style-type: none"> <li>Whiteboard Game</li> <li>Mole Day Celebration!!!</li> </ul>	<ul style="list-style-type: none"> <li>Veteran's Day (11/11)</li> <li>Whiteboard game</li> </ul>
Quizzes	<ul style="list-style-type: none"> <li>Sig Figs and Scientific Notation</li> </ul>	<ul style="list-style-type: none"> <li>Phys, chem., and phase changes</li> <li>Naming ionic compounds</li> </ul>	<ul style="list-style-type: none"> <li>Hydrate Lab Quiz</li> <li>Moles and Empirical Formulas</li> </ul>	<ul style="list-style-type: none"> <li>Balancing equations</li> <li>Synthesis/decomposition</li> </ul>

		<ul style="list-style-type: none"> <li>Predicting chemical formulas</li> <li>Naming acids</li> <li>Mixed naming quiz</li> </ul>	<ul style="list-style-type: none"> <li>Molarity Quiz</li> </ul>	<ul style="list-style-type: none"> <li>Single/double replacement</li> </ul>
Tests	<ul style="list-style-type: none"> <li>Unit I Test</li> </ul>	<ul style="list-style-type: none"> <li>Unit II Test</li> </ul>	<ul style="list-style-type: none"> <li>Unit III test</li> </ul>	<ul style="list-style-type: none"> <li>Unit IV Test</li> </ul>
Points	<ul style="list-style-type: none"> <li>200 points</li> </ul>	<ul style="list-style-type: none"> <li>300 points</li> </ul>	<ul style="list-style-type: none"> <li>200 points</li> </ul>	<ul style="list-style-type: none"> <li>200 points</li> </ul>

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	<b>Unit V: 12 days</b> Date: 11/15 – 12/2	<b>Mini Unit VI: 4 days</b> Date: 12/3 – 12/8	<b>Finals Review!!!</b> Date: 12/9- 12/13
Topics	<ul style="list-style-type: none"> <li>Stoichiometry</li> <li>Mole-mole</li> <li>Grams-moles</li> <li>Grams-grams</li> <li>Excess/limiting reagents</li> <li>Theoretical yield</li> <li>Percent yield</li> </ul>	<ul style="list-style-type: none"> <li>Solutions</li> <li>Molarity</li> <li>Molality</li> <li>Colligative properties</li> </ul>	<ul style="list-style-type: none"> <li>Everything covered previously</li> </ul>
Standards	<ul style="list-style-type: none"> <li>Chemistry 3: e,f</li> </ul>	<ul style="list-style-type: none"> <li>Chemistry 6: a,c,d,e</li> </ul>	<ul style="list-style-type: none"> <li>Investigation and Experimentation 1: a,b,c,d,e</li> <li>Chemistry 1: a,b,c,d,e,f,</li> <li>Chemistry 3: a,b,c,d,e,f</li> <li>Chemistry 4: e,f</li> <li>Chemistry 6: a,c,d,e,f</li> </ul>
Lecture Notes	<ul style="list-style-type: none"> <li>Overhead Notes on 9.1 (the arithmetic of equations)</li> <li>9.2 (chemical calculations)</li> <li>9.3 (limiting reagent and % yield)</li> </ul>	<ul style="list-style-type: none"> <li>Powerpoint notes on: 18.1 (Properties of solutions)</li> <li>18.2 (concentrations of solutions)</li> <li>18.3 (colligative properties of solutions)</li> </ul>	
Readings	<ul style="list-style-type: none"> <li>Text: 237-240</li> <li>242-249</li> <li>252-257</li> </ul>	<ul style="list-style-type: none"> <li>Ice cream article</li> <li>Text: 501-507</li> <li>509-514</li> <li>517-519</li> </ul>	
Homework	<ul style="list-style-type: none"> <li>Gram-mole wkst</li> <li>Mole-mole wkst</li> <li>Gram-gram wkst</li> <li>Limiting reagent wkst</li> <li>Theoretical yield wkst</li> <li>% yield wkst</li> </ul>	<ul style="list-style-type: none"> <li>molarity/molality/mole fraction wkst</li> <li>colligative properties wkst</li> </ul>	<ul style="list-style-type: none"> <li>Review Problems</li> </ul>
Labs & Projects	<ul style="list-style-type: none"> <li>S'more Lab (Stoichiometry)</li> <li>Excess/Limiting Lab (2 days)</li> </ul>	<ul style="list-style-type: none"> <li>Colligative Properties Lab: Making Ice Cream!</li> </ul>	
AV, Internet			<ul style="list-style-type: none"> <li>Review Jeopardy!</li> </ul>
Demos	<ul style="list-style-type: none"> <li>Balloon Demo (Limiting/Excess)</li> </ul>		
Special	<ul style="list-style-type: none"> <li>Thanksgiving Holiday (11/25-11/26)</li> </ul>		<ul style="list-style-type: none"> <li>Winter break!!!</li> </ul>
Quizzes	<ul style="list-style-type: none"> <li>Stoichiometry</li> <li>Limiting/excess reagents</li> </ul>	<ul style="list-style-type: none"> <li>Solutions Quiz</li> </ul>	
Tests	<ul style="list-style-type: none"> <li>Unit V Test</li> </ul>		<ul style="list-style-type: none"> <li>Final Exams (12/14 - 12/16)</li> </ul>
Points	<ul style="list-style-type: none"> <li>200 points</li> </ul>	<ul style="list-style-type: none"> <li>100 points</li> </ul>	<ul style="list-style-type: none"> <li>200 points</li> </ul>