

Conceptual Chemistry– Curriculum Pacing Guide – 2011-2012

Content Areas	Unit 1 - Scientific Inquiry	Unit 2 - Atomic Structure and Nuclear Processes	First Nine Weeks Test	Unit 3 - Chemical Compounds
Pacing	Daily-19 days A/B- 9 days	Daily-24 days A/B- 12 days		Daily-24 days A/B-12 days
SC Standards/ Indicators	Standard C-1 The student will demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions. Indicators C-1.1 thru C-1.8	Standard C-2 Students will demonstrate an understanding of atomic structure and nuclear processes. Indicators C-2.1 thru C-2.6		Standard C-3 The student will demonstrate an understanding of the structures and classifications of chemical compounds. Indicators C-3.1 thru C-3.5
Content Focus	<ul style="list-style-type: none"> • Science of Matter • Laboratory Safety • Significant Digits • Safety Guidelines • Scientific Investigation 	<ul style="list-style-type: none"> • Electron Configuration • Atomic Properties • Periodic Table's Properties and Trends • Nuclear Reactions of Fusion and Fission • Alpha, Beta, and Gamma Radiation • Half-Life 		<ul style="list-style-type: none"> • Ionic and Covalent Bonding • Names and Formulas of Ionic and Covalent Compounds • Intermolecular Forces in Compounds • Bonding Characteristics of Carbon • Hydrocarbons
Suggested Activities	<ul style="list-style-type: none"> • Metric Madness Lab • Corn Starch Lab (text, p. 6) • Bubble Lab (salt) (text p. 23) • Mystery Powder (text, p. 38) • Paper Chromatography (text, p. 45) • Percent Composition M&M Lab (Graphing) • Measurement Lab • Significant Figures Lab (text, p. 72) • Candy Bar Density • Density Lab • Unit Conversions Lab (text, p. 87) 	<ul style="list-style-type: none"> • Half-Life Lab, (text, p. 122) • Wintergreen Mints Lab (<i>not on disk</i>) • Flame Tests, (text, p. 142) • Getting to Know the Periodic Table (Periodic Table Coloring) • Group 2: The Alkaline Earth Metals <p><u>Chemistry IF8766</u> book, Instructional Fair, Inc.</p> <ul style="list-style-type: none"> • Element Symbols, p. 26 • Atomic Structure, p. 27 		<ul style="list-style-type: none"> • Building Hydrocarbons with Models • Making Ionic Compounds (text, p. 279) • Molecular Models PowerPoint <p><u>Chemistry IF8766</u> book, Instructional Fair, Inc.</p> <ul style="list-style-type: none"> • Ionic Bonding, p. 38 • Covalent Bonding, p. 39 • Types of Chemical Bonds, p. 40 • Shapes of Molecules, p. 41 • Polarity of Molecules, p.42