Chemistry Curriculum Bundle #4

Title	Suggested Dates
Chemical Nomenclature	10/26 – 11/13 (12 days)

Big Idea/Enduring Understanding	Guiding Questions
Atoms combine and recombine to form different compounds. These combinations and recombinations are made possible through the exchange of energy. Atoms form bonds to acquire a stable arrangement of electrons.	What does the name of a compound tell us about its composition? How can so many compounds be formed from just a few elements?

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above)
11 The student knows that balanced chemical equations are used to interpret and describe the interactions of matter. **11A** Identify common elements and compounds using scientific nomenclature.	Including • Use the periodic table to determine oxidation numbers • Name and write formulas for ionic compounds and polyatomic ions • Name and write formulas for molecular compounds • Name and write formulas for binary and oxyacids	**Fun and Games in Chemistry** Claudia Wallace and Jane Smith Writing Chemical Names and Formulas http://cast2007.smithwallace.googlepages.com/home **Dice Game-Cation Cards** See chemistry resource folder **Dice Game-Anions Cards** See chemistry resource folder **Dice Game-Blank Cards** See chemistry resource folder **Chemistry Around the House Project** See chemistry resource folder **Chemistry Around the House Rubric** See chemistry resource folder

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8 The student knows how atoms form bonds to acquire a stable arrangement of electrons. **8B** Investigate and compare the physical and chemical properties of ionic and covalent compounds.	Including • Describe ionic bonding and properties • Describe metallic bonding and properties *name ionic compounds containing main group or transition metals, covalent compounds, acids, and bases, using International Union of Pure and Applied Chemistry (IUPAC) nomenclature rules* *write the chemical formulas of common polyatomic ions, ionic compounds containing main group or transition metals, covalent compounds, acids, and bases* *describe the nature of metallic bonding and apply the theory to explain metallic properties such as thermal and electrical conductivity, malleability, and ductility*	**To share or not share-Ionic and Covalent Lab** See chemistry resource folder **Ionic vs. Covalent Lab** See chemistry resource folder **Chemical Bonding by Vision learning** **http://www.visionlearning.com/library/module_viewer.php?mid=55** **Ionic vs Covalent Bonding flash animation** **http://www.emu.dk/gsk/fag/fys/ckf/fase1/1fokv/kemisk_binding/ion_kovalent_polaer_kovalent_binding.swf**