

Chemistry I - Mrs. Bauck, PHUHS
Unit 5 Title: Compounds - Chapters 7, 8

State Standard: SC.912.P.8.7 (AA) Interpret formula representations of molecules and compounds in terms of composition and structure.

4.0	Extensions/Applications	Students will be able to: <ul style="list-style-type: none"><input type="checkbox"/> Name and write the formulas for compounds using polyatomic ions not assigned in class.<input type="checkbox"/> Name and write the formula for acids.<input type="checkbox"/> Create Lewis structures for polyatomic ions.<input type="checkbox"/> Design a lab to identify an ionic or covalent compound.<input type="checkbox"/> Identify specific lab chemicals as ionic or covalent compounds.
3.0	Learning Goal (Derived from State Standard)	Students will be able to: <ul style="list-style-type: none"><input type="checkbox"/> Determine the formula for binary and tertiary/ternary ionic compounds ("BI," "TI").<input type="checkbox"/> Name ionic compounds when given the chemical formula.<input type="checkbox"/> Name and write the chemical formulas for binary molecular compounds ("BM").<input type="checkbox"/> Explain the properties and differences between ionic and covalent bonding.<input type="checkbox"/> Predict the type of bond in a binary compound based on the position of its elements on the periodic table<input type="checkbox"/> Predict bonding polarity based on electronegativity differences.<input type="checkbox"/> Determine Lewis structures containing single or multiple bonds using VSEPR theory (four electron pairs).<input type="checkbox"/> Discuss the arrangements of ions in crystals.<input type="checkbox"/> Explain the electron sea-model of metallic bonding and relate it to the properties of metals.<input type="checkbox"/> Name and write formulas for hydrates.
2.0	Required Skills or Background Knowledge to accomplish Learning Goal	Students will be able to: <ul style="list-style-type: none"><input type="checkbox"/> Use the periodic table to identify metals and nonmetals<input type="checkbox"/> Define valence electrons and can determine the number of valence electrons from an element's placement in the periodic table.<input type="checkbox"/> Determine the charge of an ion based on its placement in periodic table.<input type="checkbox"/> Identify selected polyatomic ions and name them, and vice versa.<input type="checkbox"/> Explain the trend in electronegativity on the periodic table.<input type="checkbox"/> Explain electron configurations and how they relate to valence electrons.

1.0	With help from the teacher, student has partial success with the goal	With help from a teacher, students will be able to: <input type="checkbox"/> Achieve partial success with 2.0 and/or 3.0.
0.0	Even with help, the student has no success with the goal	<input type="checkbox"/> Even with help, student is unable to understand or complete any of the skills in scales 1.0 through 4.0.