

## GRADE 6 - Unit 04: Compounds

2010 TEKS		1998 TEKS		Curriculum and Instruction Considerations
6.5	The student knows the differences between elements and compounds.	6.7	The student knows that substances have physical and chemical properties.	
6.5C	<p><b>Differentiate between elements and compounds on the most basic level.</b></p> <p>Differentiate</p> <p>BETWEEN ELEMENTS AND COMPOUND</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> <li>elements</li> <li>compounds               <ul style="list-style-type: none"> <li>CO<sub>2</sub> – carbon dioxide</li> <li>H<sub>2</sub>O – water</li> <li>NaCl – sodium chloride</li> <li>C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> – glucose</li> <li>CaCO<sub>3</sub> – calcium carbonate</li> <li>SiO<sub>2</sub> – silicon dioxide</li> </ul> </li> </ul>	7.7C	<p><b>Recognize that compounds are composed of elements.</b></p> <p>Recognize</p> <p>COMPOUND COMPOSITION</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> <li>elements</li> <li>compounds</li> <li>mixtures               <ul style="list-style-type: none"> <li>homogeneous</li> <li>heterogeneous</li> </ul> </li> <li>recognize compounds in everyday life               <ul style="list-style-type: none"> <li>H<sub>2</sub>O</li> <li>CO<sub>2</sub></li> <li>C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> - Glucose</li> </ul> </li> </ul>	<p><b>New content for this grade.</b></p> <p><b>Key Understandings</b></p> <ul style="list-style-type: none"> <li>A compound is a substance, made by chemically combining two or more elements so that the bond cannot be broken by physical means.</li> </ul> <p><b>Performance Indicator(s)</b></p> <ul style="list-style-type: none"> <li>Create a tabbed book to identify the indicators of a chemical change during a reaction. Identify the compounds and elements that were involved in the reaction from the formulas provided for each. (6.1A, 6.2A, 6.2E, 6.5C,D)</li> </ul> <p><b>Lesson Cycle –</b> For this TEKS, reference 7<sup>th</sup> grade, Unit 10, Lesson 02 Elements, Compounds, and Mixtures</p> <p><b>Engage</b></p> <ul style="list-style-type: none"> <li>Use pg 3 What's the Difference?</li> </ul> <p><b>Explore/Explain</b></p> <ul style="list-style-type: none"> <li>Use pgs 3-4 through step #20 Compounds and Elements</li> </ul> <p><b>Elaborate</b></p> <ul style="list-style-type: none"> <li>Students build simple models of the specified compounds.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Develop a quiz that will list elements and compounds. Students will differentiate between elements and compounds.</li> </ul>
6.5D	Identify the formation of a new substance (compounds) by using the evidence of a	6.7A	Demonstrate that new substances can be made when two or more substances are	<b>Similar concept found in Grade 8</b>

<p><b>possible chemical change such as production of a gas, change in temperature, production of a precipitate, or color change.</b></p> <p>Identify</p> <p>THE FORMATION OF COMPOUNDS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> <li>• using the evidence of a possible chemical change             <ul style="list-style-type: none"> <li>• production of a gas</li> <li>• change in temperature</li> <li>• production of a precipitate</li> <li>• color change</li> </ul> </li> </ul> <p>CCRS Note: VII. Chemistry – A2 – Recognize and classify pure substances (elements, compounds) and mixtures.</p> <p>CCRS Note: VII. Chemistry – E1 – Classify chemical reactions by type. Describe the evidence that a chemical reaction has occurred.</p> <p>VII. Chemistry – H2 – Understand energy changes and chemical reactions.</p>	<p><b>chemically combined and compare the properties of the new substances to the original substances.</b></p> <p>Demonstrate</p> <p>HOW NEW SUBSTANCES WITH DIFFERENT PROPERTIES EMERGE FROM A CHEMICAL REACTIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> <li>• evidence of a chemical reaction</li> <li>• color change</li> <li>• release of gas</li> <li>• release of light/heat</li> <li>• temperature change</li> <li>• compare differences between products and reactants</li> </ul>	<p><b>Key Understandings</b></p> <ul style="list-style-type: none"> <li>• The formation of a new substance may be identified by the evidence of a chemical change.</li> </ul> <p><b>Performance Indicator(s)</b></p> <ul style="list-style-type: none"> <li>• Create a tabbed book to identify the indicators of a chemical change during a reaction. Identify the compounds and elements that were involved in the reaction from the formulas provided for each. (6.1A, 6.2A, 6.2E, 6.5C,D)</li> </ul> <p><b>Lesson Cycle</b> *For this TEKS, reference 6<sup>th</sup> grade, Unit 01, Lesson 02 Chemical Changes Create Change in Matter</p> <p><b>Engage</b></p> <ul style="list-style-type: none"> <li>• Use pg 3 Chemical Reaction</li> </ul> <p><b>Explore</b></p> <ul style="list-style-type: none"> <li>• Use pg 4-5 Yucky Ooey Goopy Gunk</li> </ul> <p><b>Explain 1</b></p> <ul style="list-style-type: none"> <li>• Use pgs 5-6 through step #20 Elements and Compounds</li> </ul> <p><b>Explore/Explain</b></p> <ul style="list-style-type: none"> <li>• Use pg 6 Match Watch</li> </ul> <p><b>Explore</b></p> <ul style="list-style-type: none"> <li>• Use pg 7 Writing with Invisible Ink</li> </ul> <p><b>Elaborate</b></p> <ul style="list-style-type: none"> <li>• Use pg 8 Observing Change.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>• Use pg 9 Chemical and Physical</li> </ul> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• For this unit, the performance indicator from the 2009-10 lesson is used as an Evaluate piece for the lesson. The Performance Indicator for the new standard will be addressed in Unit 04.</li> </ul>
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