

## Stage 1 Desired Results

<b>ESTABLISHED GOALS (CCSS)</b>  <b>RST 11-12.1-3</b>  <b>RST 11-12.4-6</b>  <b>RST 11-12.&amp;-9</b>  <b>WHST 11-12.2.a-e</b>  <b>R1 11-12.1-4</b>  <b>R1 11-12.7</b>	<i>Transfer</i>	
	<i>Students will be able to independently use their learning to...</i>  <i>Identify the properties of and calculate the concentration of solutions</i>	
	<i>Meaning</i>	
	<b>UNDERSTANDINGS</b> <i>Students will understand that...</i> <ul style="list-style-type: none"> <li>- Solutions consist of solutes dissolved in solvents</li> <li>- Molarity is used to measure concentration</li> <li>- Solutions have different properties than the pure solvent</li> </ul>	<b>ESSENTIAL QUESTIONS:</b> <ul style="list-style-type: none"> <li>- What is a solution?</li> <li>- What happens to solute when it dissolves in a solvent?</li> <li>- How is molarity used to calculate concentration?</li> <li>- How are the freezing point and boiling point of a solution different from that of a pure solvent?</li> </ul>
<i>Acquisition</i>		
<i>Students will know...</i> <ul style="list-style-type: none"> <li>- Solute and solvent</li> <li>- Dissociation of ionic compounds</li> <li>- Net ionic equations</li> <li>- Molarity</li> <li>- Freezing point depression and boiling point elevation</li> </ul>	<i>Students will be skilled at...</i> <ul style="list-style-type: none"> <li>- Writing net ionic equations</li> <li>- Calculating molarity</li> <li>- Calculating freezing point depression of a solution</li> </ul>	

## Stage 2 - Evidence

<b>Evaluative Criteria</b>	<b>Assessment Evidence</b>
<b>PERFORMANCE TASKS</b>	<b>CURRICULUM EMBEDDED PERFORMANCE ASSESSMENT (PERFORMANCE TASKS):</b> <ul style="list-style-type: none"> <li>- Exam that allows students to write net ionic equations, calculate molarity, and calculate freezing point depression.</li> <li>- Lab reports that involve construction of graphs, data charts, and data analysis.</li> </ul>
	<b>OTHER EVIDENCE:</b> <ul style="list-style-type: none"> <li>- Test on Solutions               <ul style="list-style-type: none"> <li>○ Balancing equations</li> <li>○ Solutions</li> <li>○ Naming inorganic compounds</li> </ul> </li> <li>- Daily assignments.</li> <li>- Two lab write ups</li> <li>- Exam Review</li> <li>- Exam</li> </ul>

CLAIMS	L A M	<u>CLAIM 1</u> <u>CLAIM 1</u>	<u>CLAIM 2</u> <u>CLAIM 2</u>	<u>CLAIM 3</u> <u>CLAIM 3</u>	<u>CLAIM 4</u> <u>CLAIM 4</u>
DEPTH OF KNOWLEDGE LEVELS		<u>DOK 1</u>	<u>DOK2</u>	<u>DOK 3</u>	<u>DOK4</u>
ACHIEVEMENT LEVEL DESCRIPTORS		<u>ALD 1</u>	<u>ALD 2</u>	<u>ALD 3</u>	<u>ALD 4</u>
<b>Stage 3 – Learning Plan</b>					
<b>Summary of Key Learning Events and Instruction</b>		<ul style="list-style-type: none"> <li>- Take notes on Solutions <ul style="list-style-type: none"> <li>o Define solution, suspension, and colloid</li> <li>o Demonstrate net ionic equations</li> <li>o Demonstrate molarity calculations</li> <li>o Demonstrate colligative properties (freezing point depression and boiling point elevation)</li> </ul> </li> <li>- Complete labs <ul style="list-style-type: none"> <li>o Seven solution lab</li> <li>o Colligative properties of aqueous solutions</li> </ul> </li> <li>- Complete homework <ul style="list-style-type: none"> <li>o Practice net ionic equations</li> <li>o Practice molarity</li> <li>o Practice freezing point depression and boiling point elevation</li> </ul> </li> <li>- White board practice to check understanding</li> <li>- Review and final practice</li> <li>- Exam on solutions</li> </ul>			