

## 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>	<b>Transfer</b>	
	<i>Students will be able to independently use their learning to...</i>	
	<i>Identify &amp; classify acids, bases, and buffers</i>	
	<b>Meaning</b>	
	<b>UNDERSTANDINGS</b> <i>Students will understand that...</i> <ul style="list-style-type: none"> <li>- Acids &amp; bases neutralize each other</li> <li>- Identify acids &amp; bases in everyday products</li> <li>- How to complete a titration</li> </ul>	<b>ESSENTIAL QUESTIONS:</b> <ul style="list-style-type: none"> <li>- What is an acid?</li> <li>- What is a base?</li> <li>- In what everyday products can acids/bases be found?</li> <li>- What is a titration?</li> <li>- What is the purpose of titration?</li> </ul>
	<b>Acquisition</b>	
<i>Students will know...</i> <ul style="list-style-type: none"> <li>- Key terms; acid, base, neutralization, buffers, &amp; titration</li> <li>- How to complete a titration</li> <li>- How to determine pH, pOH, <math>[H_3O]^+</math>, and <math>[OH]^-</math></li> </ul>	<i>Students will be skilled at...</i> <ul style="list-style-type: none"> <li>- Configuring the products and reactants in acid/base equations</li> <li>- Identifying acids/bases/buffers</li> <li>- Calculating pH's of solutions using molarity, mass, or concentration of <math>H_3O^+</math>.</li> <li>- Use a titration to determine concentrations of acids and bases.</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> Lab write up that requires students to construct a data chart, perform calculations, and draw conclusions based on data.  Exam with a built in lab portion that requires students to complete a titration of an unknown solution of acid.

		<b>OTHER EVIDENCE:</b>			
		<ul style="list-style-type: none"> <li>- Students will complete a lab that requires students to design data charts and graphs using proper scientific units, and draw conclusions based on their data.</li> <li>- Test on Acids &amp; Bases <ul style="list-style-type: none"> <li>o Balancing equations</li> <li>o Identifying acids, bases, and buffers</li> <li>o Naming inorganic compounds</li> </ul> </li> <li>- Homework</li> </ul>			
CLAIMS	L A M	<u>CLAIM 1</u>	<u>CLAIM 2</u>	<u>CLAIM 3</u>	<u>CLAIM 4</u>
		<u>CLAIM 1</u>	<u>CLAIM 2</u>	<u>CLAIM 3</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 Acids &amp; Bases <ul style="list-style-type: none"> <li>o Define acids, bases, titrations, buffers and neutralizations</li> <li>o Show chemical equations involving acids/bases/buffers</li> <li>o Identify acids/bases in everyday products</li> <li>o Explain the importance of buffers</li> <li>o Explain the pH scale</li> </ul> </li> <li>- Complete labs <ul style="list-style-type: none"> <li>o Titrations</li> <li>o Acids/Bases</li> </ul> </li> <li>- Complete homework <ul style="list-style-type: none"> <li>o Acid/Base equations</li> <li>o Configuring pH, pOH, [H<sub>3</sub>O]<sup>+</sup>, and [OH]<sup>-</sup></li> </ul> </li> <li>- Complete Question of the Day <ul style="list-style-type: none"> <li>o Students are responsible for completing the Question of the Day on their own whiteboard</li> <li>o Teacher then has the students show them their white boards to check for clarity</li> <li>o Students copy down correct method for configuring on separate sheet of paper and turn in at the end of the week.</li> </ul> </li> <li>- Review and Final practice</li> <li>- Take test on Acids &amp; Bases</li> </ul>			