

Stage 1 Desired Results

ESTABLISHED GOALS (CCSS) RST.11-12.1-3 RST.11-12.4-6 RST.11-12.7-9 WHST.11-12.2a-e RL.11-12.1,2,3,4,7	<i>Transfer</i>	
	<i>Students will be able to independently use their learning to...</i> Predict products of reaction. Complete stoichiometry calculations. Calculate empirical formulas.	
	<i>Meaning</i>	
	UNDERSTANDINGS <i>Students will understand that...</i> When given reactants a person can predict products of a chemical reaction. A balanced equation allows a person to convert between reactants and products. A person can determine empirical formulas in the laboratory.	ESSENTIAL QUESTIONS: What does a chemical reaction tell you? What does a chemical formula tell you? How can a balanced reaction be used to predict products both qualitatively and quantitatively?
<i>Acquisition</i>		
<i>Students will know...</i> 5 types of reactions Empirical formulas Stoichiometry	<i>Students will be skilled at...</i> Identifying products in the five types of chemical reactions. Calculating empirical formulas or compounds. Completing stoichiometric calculations	

Stage 2 - Evidence

Evaluative Criteria	Assessment Evidence
PERFORMANCE TASKS	CURRICULUM EMBEDDED PERFORMANCE ASSESSMENT (PERFORMANCE TASKS): End of Unit exam that allows students to complete stoichiometric calculations, predict products based on reactions, balance equations, use separate charts to predict products. Lab reports that involve construction of graphs, data charts, and data analysis. Additionally, the labs in this unit require students to predict empirical formulas of compounds and compare them to actual empirical formulas.

		OTHER EVIDENCE: Daily assignments. Two lab write ups Exam Review Exam			
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>
Stage 3 – Learning Plan					
Summary of Key Learning Events and Instruction		<ul style="list-style-type: none"> - Take notes on Chemical Reactions <ul style="list-style-type: none"> o Balancing chemical reactions o Define 5 types of reactions o Use activity series o Use balanced reactions to complete stoichiometric calculations - Complete labs <ul style="list-style-type: none"> o Identifying 5 types of reactions using copper solutions o Using metals to construct an activity series o Using the decomposition of baking soda to predict the products - Complete homework <ul style="list-style-type: none"> o Practice on balancing, predicting reaction products o Stoichiometry using moles to moles, grams to moles and grams to grams - Use White Boards to check understanding - Review and final practice before exam - Exam on Chemical reactions 			