

Big Idea(s)/ Unifying Q(s):	Atoms move around in predictable ways during chemical reactions
DCI-NGSS	•
SEP-NGSS	
CCC-NGSS	

8.	8.	9.	9.
<ul style="list-style-type: none"> • Precipitate • Precipitate • Word equations • Coefficients • Subscripts 	<ul style="list-style-type: none"> • Symbols (Table 2 pg 266) • Types/Classifications of reactions • Synthesis, decomposition, electrolysis, single displacement, double displacement, combustion • Activity Series of Element 	<ul style="list-style-type: none"> • Stoichiometry • Mole Ratios • Limiting reactant • Excess reactant • Theoretical yield • Actual yield • Percentage yield 	•

DCI, EOB and OPObjectives	Student Learning Targets (coded to DCI, EO or OPRF Objectives)
1.	<ul style="list-style-type: none"> • List the three indicators of a chemical reaction • Explain how the law of conservation of mass is evident when chemical reactions take place • Use correct phase notation when writing formulas in a chemical equation • Use correct notation above the arrow in a chemical reaction to show the addition of heat, catalyst etc. • Identify the seven diatomic elements on the periodic table and write their formulas correctly when balancing chemical equations • Balance chemical equations • Write balanced chemical equations starting from word equations/descriptions of chemical reactions • Predict the products of chemical reactions based on the reactants and identifying the classification of chemical reaction • Classify chemical reactions • Use a reactivity series to predict products and determine if single replacement reactions will occur • Use a solubility chart to predict products and determine if double replacement reactions will occur • Use stoichiometry to convert between mass, volume, particles, and moles of products and reactants • Calculate % Yield

Classroom Instructional Activity Bank	Resource Bank
<p>Labs/Lab Activities/Videos/Demonstrations</p> <ul style="list-style-type: none">Finding the molar mass of butaneDemo: Potassium Iodide + lead nitrateDemo: Aluminium + Copper ChlorideDemo: Alcohol woosh bottleSilver Nitrate: Producing silver	<p>Worksheets/Reading Guides/Formative Assessments/On-line Homework</p> <ul style="list-style-type: none">Balancing Chemical Ractions pHETBozeman: Synthesis and Decomposition ReactionsKhan: Balancing Chemical ReactionsGeek: Classifying chemical reactionsGeek: Stoich video liters to gramsGeek: Stoich Review problems 1-16Geek: Does this reaction happen?Bozeman: Limiting Reactants and % YieldGeek: Predicting PorductsKhan: Limiting ReactantsChapter 8-9 Study GuidePractice Test Chapter 8-9
<p>Investigations/Engineering Projects:</p> <ul style="list-style-type: none">Scrubbing Carbon Dioxide	<p>Summative Common Unit Assessment:</p> <ul style="list-style-type: none">Chapter 8-9