**Chemical Reactions Unit Plan**

| Day | Curricular Reference | Expectations of the Day | Text  Reference | Suggested Homework | Success Criteria  By the end of the lesson, students will be able to… | Yes!  I Can… |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | C 2.2 | Law of Conservation of Mass  Balancing Chemical Reaction Equations  Practice with Word and Chemical Equations | Section 4.1 | Pg. 112 # 1  Pg. 113 # 3  Pg. 116 # 6  Pg .117 # 7  Pg. 118 # 4  Worksheet | * Define the law of conservation of mass, and it’s relation to reactions * Balance a chemical reaction with the use of coefficients * Use nomenclature to write word equations for a balanced chemical reaction |  | |
| 2 | C 2.2  C 2.3  C 2.4  C 3.1 | Types of Chemical Reactions   * Classifying Reactions using patterns | Section 4.2 | Pg. 122 # 10, 12  Pg. 123 # 15, 16  Pg. 125 # 1, 2  Worksheet | * Define a synthesis reaction, and predict the product formed from a synthesis reaction * Define a decomposition reaction, and predict the products formed from a decomposition reaction |  | |
| 3 | C 2.2  C 2.3  C 2.5  C 3.1 | Types of Chemical Reactions   * Predicting Products of the Reactions * Activity Series of Metals | Section 4.2 and 4.3 | Pg. 127 # 21  Pg. 131 # 22 | * Using the activity series, predict whether or not a displacement reaction can occur * Predict the outcome of the reaction, and represent it with a balanced chemical equation |  | |
| 4 | C 2.4  C 2.5  C 2.6 | Double Displacement Reactions   * Solubility Guidelines   More Practice for Predicting Products | Section 4.3 | Page 135 # 27, 28 | * Understand the basics for a double displacement reaction, in relation to ions * Using solubility rules, predict the formation of precipitates, where applicable * Predict the outcome of the reaction, and represent it with a balanced chemical equation |  | |
| 5 | C .3 | LAB ACTIVITY  Distinguishing Between Types of Reactions   * Predict type of reaction * Observe and record evidence of Chemical Change | Lab Handout  Use Page 140 Concept Organizer as well as | Chapter 4 Review for Quiz! | * Observe chemical reactions and determine qualitative properties providing evidence of a chemical change * Determine the reaction type demonstrated, and create a balanced chemical equation for the scenario |  | |
| 6 | C 2.2  C 2.3  C 2.5  C 3.1 | QUIZ – Types of Chemical Reactions  LAB ACTIVITY continued …   * Write Balanced Chem Rxn Eqns | Lab Handout | Lab Handout completed for evaluation | * Observe chemical reactions and determine qualitative properties providing evidence of a chemical change * Determine the reaction type demonstrated, and create a balanced chemical equation for the scenario |  | |
| 7 | C 1.2 | APPLICATIONS  Research Topics for Industrial Rxns   * Production of NH3, H2SO4 etc. | See Nelson Chemistry 11 textbook pages | Answer Q from Nelson Textbook | * Research and discuss different gases produced through industrial reactions that are harmful to society * Analyze the effects these products have directly to our lives |  | |
| 8 | C 2.8  C 3.3 | LAB ACTIVITY  Synthesis of Acids and Bases  (May need to do virtual or via video if there is no way to generate sufficient oxygen gas) | Lab Handout | Answer Lab Analysis Q on Worksheet | * Use knowledge of types of reactions with elements on the periodic table and water to synthesize an acid and a base * Use virtual lab techniques to see ideal conditions for the creation of an acid and a base |  | |
| 9 | C 3.1 | Complete and Incomplete Combustion Rxns LAB ACTIVITY  Complete and Incomplete Combustion   * Discuss answers to Analysis Q | Section 14.1  Lab Handout | Page 584 #2-4 | * Define a combustion reaction, and predict the products formed from a combustion reaction * Differentiate between a complete and incomplete combustion reaction, and the conditions that define each |  | |
| 10 | C 1.1 | APPLICATIONS  “Green Chemistry” assignment from pages in the Nelson textbook | See Nelson Chemistry 11 textbook pages | Study for Unit Test |  |  | |
| 11 |  | UNIT REVIEW | Use Pages from New McGraw-Hill Textbook as Handout | Lab Questions |  |  | |
| 12 |  | **Unit Test** |  |  |  |  | |