Grade 9
Distance Learning Module 5: Week of 4/27- 5/1

Conceptual Chemistry - *Modified from Unit #1 - Nature of Matter*

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

1. A chemical reaction (chemical change) is a transformation that alters the composition of one or more substances such that one or more new substances with new properties are produced.
2. A combination reaction is a reaction in which two or more reactants combine to form a single product.
3. A decomposition reaction is a chemical change in which a single substance is broken down into two or more simpler substances.
4. A single displacement reaction is a chemical change in which an element is displaced from a compound by a more reactive element.
5. A double displacement reaction is a chemical change in which both reactants break apart and then recombine to form two new products.
6. Combustion reactions involve the reaction between a hydrocarbons and oxygen to produce carbon dioxide and water.

Vocabulary: replacement, combustion, synthesis, decomposition, product, reactant, chemical reaction

Skills:

1. Balance chemical equations.
2. Classify types of chemical reactions.
3. Solve simple stoichiometry problems using mole ratios and molar mass.
4. Calculate the molar mass of common chemical substances.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Students will explore synthesis and decomposition reactions. Students will be	**Synthesis and Decomposition Reactions** Edpuzzle - Predicting Products of Synthesis and Decomposition Reactions	Associated Worksheet Link to worksheet posted in Google classroom

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able to predict the the products of each of these types of reactions. Students will watch an edpuzzle video, then students will complete an associated worksheet and a google form that allows students to check their progress.		
Tuesday: Students will observe three videos discussing replacement reactions and combustion reactions. Students will not need to use solubility charts and activity series, but understanding them will help. After, students will work on an introductory worksheet that goes over these types of reactions **Online Q&A/ Office Hours: 9:25 a.m.-10 a.m.**	**Single Replacement Reactions** Edpuzzle - Single Replacement Reactions **Double Replacement Reactions** Edpuzzle - Double Replacement Reactions **Combustion Reactions** Edpuzzle - Combustion Reactions	Associated Worksheet Link to worksheet posted in Google classroom
Wednesday: Students will work on identifying different types of chemical reactions. Students will watch a video that guides them through a practice of identifying types of reactions. Then student will work on two worksheets to continue practicing identifying types of reactions. These worksheets will slowly remove the scaffolding in preparation fo the putting it all together activity tomorrow.	**Practice Identifying types of reactions video:** Edpuzzle - Reaction Types Practice **Determine types of rxns worksheet** Link to worksheet posted in Google classroom **Predict the products worksheet** Link to worksheet posted in Google classroom	**Determine types of rxns worksheet** Link to worksheet posted in Google classroom **Predict the products worksheet** Link to worksheet posted in Google classroom
Thursday: Students will work on a worksheet where they will need to determine the type of reaction based on the reactants, determine the products of the reaction, balance the completed reaction, and finally complete a stoichiometry problem based on each	**Worksheet Answer Key:** Link to worksheet answer key posted in Google classroom	**Predict products, balance, and stoichiometry problems worksheet** Link to worksheet posted in Google classroom

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reaction. **Online Q&A/ Office Hours: 9:25 a.m.-10 a.m.**		
Friday: Review from the week Check answer keys for worksheets, retry if needed Office hours 9:25 a.m. to 10:00 a.m. Google Form quiz of the week's topics	**Unit Practice Test Key** Link to answer key posted in Google classroom	**Unit Practice Test** Link to practice test posted in Google classroom

Week criteria for success (attach student checklists or rubrics):

- ❑ watched all of the recorded videos and taken notes
- ❑ completed all google forms and checked for accuracy. Each incorrect answer on the google form will provide feedback as to why the correct answer is preferred. Students will incorporate this feedback into future attempts.
- ❑ Students will complete an end of the week assessment that checks on content understanding for the topics of the week.
- ❑ incorporated feedback, submitted second attempt, if needed on google classroom

Supportive resources and tutorials for the week (plans for re-teaching):

- online virtual Q and A help sessions (see Google Classroom for times and invite codes)