Grade 9
Distance Learning Module 3: Week of: 4/13-4/17

Content Area: 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.

Vocabulary: dimensional analysis, metric, conversions, molar mass, mole, stoichiometry, proportion

Skills:

1. Balance chemical equations.
2. Solve simple metric conversions
3. Solve simple dimensional analysis conversions
4. Solve simple stoichiometry problems using mole ratios and molar mass.
5. 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 complete a phet simulation based around balancing chemical equations. This will help refresh the skill from the previous module. Students will complete the associated worksheet the pairs well with the lab.	PHET colorado.edu balancing-chemical-equations	Associated Worksheet: POSTED IN Google classroom
Tuesday: Students will start by watching a video that introduces them to the process of dimensional analysis. After, they will look at metric conversions, focusing on the range	Introduction to Dimensional Analysis: Edpuzzle-Dimensional Analysis Metric Conversions: Edpuzzle Metric conversions	Associated Worksheets: **Metric Conversions** POSTED IN Google classroom **Dimensional Analysis** POSTED IN Google classroom

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between milli- and kilo-. Students will then complete two worksheets related to the topics. The first will be a practice to convert metric units between each other, the second will focus on converting between the empirical system and the metric system through dimensional analysis..	Conversion Sheet Reference: Posted in Google classroom	
Wednesday: Students will start by investigating how to calculate molar mass and how to convert from the moles of a substance to the mass of a substance and vice versa. After, students will practice with more challenging dimensional analysis in preparation for stoichiometry.	Edpuzzle- EP6 - Molar Mass	Associated Worksheets: **Molar Mass Worksheet** POSTED IN Google classroom **Additional Dimensional Analysis Practice** POSTED IN Google classroom
Thursday: Students will watch two videos related to stoichiometry. The first explains the idea behind the mole and avogadro's number. It presents one method of stoichiometry that uses proportions. The second video gives a thorough walkthrough of stoichiometry for better understanding of its purpose. After, students will work on an introduction to stoichiometry worksheet.	**Introduction to Stoichiometry** Edpuzzle Stoichiometry **Combining Stoichiometry with Dimensional Analysis:** Edpuzzle video	Associated worksheet: POSTED IN Google classroom
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		

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):

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