A blue and grey logo with claws

Description automatically generated**2024-2025 Weekly Lesson Planning Document**

Template for the following:

Science, Social Studies, CTE, World Languages,

HPELW, Fine Arts, JROTC

Week of Monday, March 31, through Friday, April 4

**EDUCATOR’S NAME:** \_\_\_ Ms. Burton, Ms. Daughrity, Ms. Mitchell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **SUBJECT:** \_\_\_\_\_\_Chemistry I\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| **Lesson Title:**  **Unit:**  **Chapter:**  **Page Number(s):**  (It is suggested that you use your curriculum map.) | **Unit 7**  **Chapter 9:**  **Stoichiometry**  **p. 300-301** | **Unit 7**  **Chapter 9:**  **Stoichiometry**  **p. 300-301** | **Unit 7**  **Chapter 9:**  **Stoichiometry**  **p. 300-301** | **Unit 7**  **Chapter 9:**  **Stoichiometry**  **p. 300-301** | **Unit 7**  **Chapter 9:**  **Stoichiometry**  **p. 300-301** |
| **TN Standard(s):**  Grade level standard (include standard notation and language).  Which State Standard is your lesson addressing? This should also be on your Whiteboard Protocol. | **CHEM1.PS1.3** Perform stoichiometric calculations involving the following relationships: mole-mole; mass- mass; mole-mass; mole-particle; and mass- particle. Show a qualitative understanding of the phenomenon of percent yield, limiting, and excess reagents in a chemical reaction through pictorial and conceptual examples. (states of matter liquid and solid; excluding volume of gases). | | | | |

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| **Objective (s):**  What specifically should students be able to do at the end of the lesson? The objective is standards-based.  Write the objective in student friendly terms. For example, I can multiply binomials.  This is should also be on your Whiteboard Protocol.  What do you want students to know, understand and be able to do as a result of this lesson?  The objective should be written using the stem…  **I CAN….** | **I Can…**  Perform the sequence of steps used in solving mass-to-mass stoichiometric problems. | | **I Can…**  Perform a mass-to-mass stoichiometry calculation to predict the amount of baking soda needed to produce a target amount of sodium carbonate. | **I Can…**  Use the correct amount of baking soda to produce a target amount of sodium carbonate when it decomposes. | **I Can…**  Collect data from the Decomposition of Baking Soda lab activity. | | **I Can…**  Complete the calculations for the Decomposition of Baking Soda lab activity. |
| **Possible Misconception (s):**  What misconception(s) are you anticipating during this lesson? | Some students use their calculators inefficiently when they have numbers that are multiplied in the denominator of fractions. For example, a student might calculate the problem \_62 × 70 15 × 35 by dividing the product of the numerator by the product of the denominator. This requires that the products be written down. Show students that a number in the numerator is multiplied and a number in the denominator is divided. The problem then becomes a single process of pressing the keys: 62 × 70 divided by 15 divided by 35 = 8.3.  Students often think all reactions go to completion. They will learn in a future chapter that reversible reactions and equilibrium systems limit the masses of products in chemical reactions. Reintroduce the concept of percentage yield at that time. | | | | | | |
| **Literacy-Based DO NOW:**  This literacy-based activity should be ready for students to begin working on upon entering class. Students should have an opportunity to read, write, and/or speak. | Read over the Mass-Mass Problems assignment and begin solving the mass-to-mass stoichiometry problems. |  | | Get out your pre-lab calculations and prepare to collect data for the Decomposition of Baking Soda lab activity. |  | Get out your lab activity data and prepare to finish your calculations. | |
| **Agenda for the Day**  Simple outline of lesson segments or activities that is time stamped.  Teacher/class should take 2 minutes or less to review. | * Do Now *(8 minutes)* * Review Learning Objective *(2 minutes)* * I Do *(12 minutes)* * We Do *(12 minutes)* * You Do *(13 minutes)* * Exit Ticket *(5 minutes)* | * Do Now *(8 minutes)* * Review Learning Objective *(2 minutes)* * I Do *(12 minutes)* * We Do *(12 minutes)* * You Do *(13 minutes)*   Exit Ticket *(5 minutes)* | | * Do Now *(8 minutes)* * Review Learning Objective *(2 minutes)* * I Do *(12 minutes)* * We Do *(12 minutes)* * You Do *(13 minutes)* * Exit Ticket *(5 minutes)* | * Do Now *(8 minutes)* * Review Learning Objective *(2 minutes)* * I Do *(12 minutes)* * We Do *(12 minutes)* * You Do *(13 minutes)* * Exit Ticket *(5 minutes)* | * Do Now *(8 minutes)* * Review Learning Objective *(2 minutes)* * I Do *(12 minutes)* * We Do *(12 minutes)* * You Do *(13 minutes)* * Exit Ticket *(5 minutes)* | |
| **Beginning of Lesson**  **I Do**  **Science:** Engage & Explore | **I will provide students with the Mass-Mass Problems stoichiometry assignment.** | **I will provide students with a pre-lab assignment in which they predict the amount of baking soda they require to produce a target amount of sodium carbonate.** | | **I will provide students with the materials to perform a stoichiometric lab activity.** | **I will provide students with the materials to perform a stoichiometric lab activity.** | **I will provide students with an opportunity to finish their stoichiometry lab report.** | |
| **Middle of the lesson**  We Do  **Science:** Explain and Elaborate | **Work in small groups to solve the mass-to-mass stoichiometry**  **problems.** | **Work in small groups to make calculations in preparation for the stoichiometry lab activity.** | | **Work in small groups to collect data for the stoichiometry lab activity.** | **Work in small groups to collect data for the stoichiometry lab activity.** | **Work in small groups to finish the stoichiometry lab calculations.** | |
| **End of the lesson**  You Do  **Science:** Evaluate | **Complete the Mass-Mass Problems assignment.** | **Complete calculations in preparation for the stoichiometry lab activity.** | | **Begin analysis of data collected for the stoichiometry lab activity.** | **Continue analysis of data collected for the stoichiometry lab activity.** | **Complete the stoichiometry lab report.** | |
| **(05 MINUTES MAX)**  **Literacy Based closing activity:**  Engage students in reading and writing tasks that assess their understanding of the lesson. Students are drawn back to the objective for the day. | Complete literacy-based Exit Ticket question on paper or in Microsoft Forums. Will be based on what was discussed in lesson for the day. |  | |  |  |  | |
| **SPED Modification (s):**  What modifications are being made to accommodate the students receiving special services? | Extended time on assignments; ability to correct assignments; reduced number of problems  Planned/preferential seating  Allow breaks during class  Extended time for testing; reduced choices on multiple choice tests  Repeating directions verbatim | | | | | | |
| **ESL Modification (s):**  What modifications are being made to accommodate the students receiving special services? | Small group instruction  Read aloud for assessments  Interactive reader for computer assignments  Extended time on assignments and tests  Opportunity to redo assignments and correct tests based on teacher feedback  Bilingual support provided by translated copies, peers, and dictionaries | | | | | | |
| Formative assessment of responses to the CFUs and Exit Ticket. | Formative assessment of responses to the Mass-Mass Problems assignment. | | Formative assessment of responses to the CFUs and Exit Ticket. | Formative assessment of responses to the CFUs and Exit Ticket. | Formative assessment of responses to the CFUs and Exit Ticket. | | Formative assessment of responses to the stoichiometry lab activity. |
| **Corrective Activity (s):**  What will I do if the student doesn’t understand the lesson? | -Weekly tutoring sessions  -Peer tutoring partners.  -Opportunity for corrections. | | -Weekly tutoring sessions  -Peer tutoring partners.  -Opportunity for corrections. | -Weekly tutoring sessions  -Peer tutoring partners.  -Opportunity for corrections. | -Weekly tutoring sessions  -Peer tutoring partners.  -Opportunity for corrections. | | -Weekly tutoring sessions  -Peer tutoring partners.  -Opportunity for test corrections. |
| **Extension/Enrichment Activity (s):**  What will I do with students who understand quicker than others? | * Have students research how chemists increase the yield of a chemical reaction. One example involves the Haber process used to make ammonia, which is then used to make fertilizers. Point out the importance of fertilizers in growing food crops. To increase the percent yield, the Haber process involves very high temperature and pressure. | | | | | | |
| **Technology Integration:**  How will the students use technology to help them master the objective. | * Use district-issued electronic device to complete online assignments, formative assessments (exit tickets), and summative assessments. | | | | | | |

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| **IN THE FOLLOWING PAGES:**  **ONLY COMPLETE SECTION(S) BELOW IF YOUR SUBJECT IS IDENTIFIED/LISTED** | |
| **ALL SCIENCE (S):**  What is your **resource plan for each of the 5 Es** of inquiry-based science instruction?   1. Engage 2. Explore 3. Explain 4. Elaborate 5. Evaluate | **Engage**   1. Classroom Catalyst, TE p. 289 2. Demonstration: Mass Relationships in Chemical 3. Reactions, TE p. 290 4. Classroom Catalyst, TE p. 294 5. Demonstration: Limiting Reactant, TE p. 302   **Explore**   1. Quick Lab: Limiting Reactants in a Recipe, p. 306 2. Lab: Stoichiometric and Gravimetric Analysis 3. (Forensics) 4. Lab: Stoichiometry (Open Inquiry) 5. Lab: Gravimetric Analysis-Hard-Water Testing   **Explain**   1. Classroom Practice: Stoichiometric Calculations Using Mole Ratios, pp. 295, 297, 299, 301 2. Classroom Practice: Limiting Reactant, pp. 303, 305 3. Classroom Practice: Percentage Yield, p. 308   **Elaborate**   1. Alternative Assessment, TE p. 300   **Evaluate**   1. 9.1 Section Formative Assessment, p. 291 2. 9.2 Section Formative Assessment, p. 301   3. 9.3 Section Formative Assessment, p. 308 |
| **ALL SCIENCE (S):**  ***(Multiple opportunities to engage in science, Makes since of science content)***  What is yourplan to incorporate technology while incorporating the 5E instructional model? | **SUGGESTED OPPORTUNITIES FOR TECHNOLOGY**  1. PhET Simulations  2. Microsoft Forms  3. Virtual Lab |