**2024-2025 Weekly Lesson Planning Document**

Template for the following:

Science, Social Studies, CTE, World Languages,

HPELW, Fine Arts, JROTC

Week of Monday, April 7, through Friday, April 11

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **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. 302-308** | **Unit 7****Chapter 9:****Stoichiometry****p. 302-308** | **Unit 7****Chapter 9:****Stoichiometry****p. 289-308** | **Unit 7****Chapter 9:****Stoichiometry****p. 289-308** | **Unit 7****Chapter 9:****Stoichiometry****p. 289-308** |
| **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).  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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…**Explain the concept of limiting and excess reactants. | **I Can…**Explain the concept of percent yield.Calculate the percent yield for a chemical reaction. | **I Can…**Recall and apply all previous knowledge concerning stoichiometry concepts. | **I Can…**Recall and apply all previous knowledge concerning stoichiometry concepts. | **I Can…**Recall and apply all previous knowledge concerning stoichiometry concepts. |
| **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. | How many **complete** bottles of soda can you deliver from these items (assume you can fill them with soda)? [Picture included] |  | Determine the limiting and excess reactants using the following recipe to make a bacon & cheese sandwich:**2 slices + 3 slices + 1 slice** **bread bacon cheese****YOU HAVE**: 23 slices of bread, 26 slices of bacon, and 10 slices of cheese.**Explain your reasoning!** | What is the percent yield of a reaction in which 20.0 g of product was calculated from a mass-mass problem but only 13.5 g of product was collected? | Prepare for your Chapter 9 Test. |
| **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)*
* You Do *(37 minutes)*
* Exit Ticket *(5 minutes)*
 | * Do Now *(8 minutes)*
* Test *(42 minutes)*
 |
| **Beginning of Lesson****I Do****Science:** Engage & Explore | **I will explain the concepts of limiting and excess reactants as well as provide “real life” examples of these concepts.** | **I will explain the concepts of theoretical, actual, and percent yield. I will also provide practice problems to calculate percent yield.** | **I will provide students with review problems to prepare for the Chapter 9 Test.** | **I will lead the class through questions concerning all of Chapter 9 during a review game.**  | **I will distribute the Chapter 9 Test to the class.** |
| **Middle of the lesson**We Do**Science:** Explain and Elaborate | **Respond to CFUs embedded in the guided notes to indicate mastery of the concepts covered in class today.** | **Respond to CFUs embedded in the guided notes to indicate mastery of the concepts covered in class today.** | **Work in small groups to answer the review problems for Chapter 9.** |  |  |
| **End of the lesson**You Do  **Science:** Evaluate | **Respond to CFUs embedded in the guided notes to indicate mastery of the concepts covered in class today.** **Ask any questions I have concerning limiting & excess reactants.** | **Respond to CFUs embedded in the guided notes to indicate mastery of the concepts covered in class today.** **Ask any questions I have concerning theoretical, actual, and percent yield.** | **Complete the review problems for Chapter 9.** | **Answer review questions concerning Chapter 9 concepts to earn extra credit (while reviewing for the test).** | **Complete the Chapter 9 Test to demonstrate mastery of the concepts concerning Stoichiometry.** |
| **(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. | Complete literacy-based Exit Ticket question on paper or in Microsoft Forums. Will be based on what was discussed in lesson 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 problemsPlanned/preferential seatingAllow breaks during classExtended time for testing; reduced choices on multiple choice testsRepeating directions verbatim |
| **ESL Modification (s):**What modifications are being made to accommodate the students receiving special services? | Small group instructionRead aloud for assessmentsInteractive reader for computer assignmentsExtended time on assignments and testsOpportunity to redo assignments and correct tests based on teacher feedbackBilingual 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 review questions and Exit Ticket. | Formative assessment of the answers to the review questions. | Summative assessment of responses to the Chapter 9 Test questions. |
| **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.
 |

|  |
| --- |
| **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 Simulations2. Microsoft Forms3. Virtual Lab |