

Chemistry 20: Stoichiometry MI Assignment

Name: _____ Partner's Name if it's a drama: _____

INTRODUCTION: An understanding of the relationships in a chemical reaction is an important. For this project, you will use 2 or more of your MI strengths and any available medium **except** a plain poster (music, drama, computer programs, writing, building and drawing) to accurately demonstrate the Chemistry concepts below to the level described in the notes and class discussions. The project must be created alone unless it is a drama or musical which may be done in groups of two.

LEARNING OUTCOME	Self Mark	Peer Mark
Using two or more of your MI strengths, demonstrate your understanding of :		
1) Gravimetric stoichiometry. Using a balanced chemical reaction and calculations demonstrate your understanding of: <ol style="list-style-type: none"> a. The following definitions: stoichiometry, mole ratio, coefficient, STP & SATP (5 marks) b. mole to mole stoichiometry (1 example for 2 marks) c. mole to quantity (mass, volume or particles) stoichiometry (1 example for 4 marks) d. quantity to mole stoichiometry (1 example for 4 marks) e. Quantity (mass, STP/SATP volume or particles) to Quantity (mass, STP/SATP volume, or particles) Stoichiometry (2 different examples for 10 marks) DUE DATE: MARCH 25 marks 25 marks
2) More Complex stoichiometry. <ol style="list-style-type: none"> a. how to determine and use limiting reagents (1 example for 5 marks) b. how to determine how much excess is left over (1 example for 5 marks) c. how to determine % yield (1 example for 5 marks) d. how to determine % error when an actual yield is given (1 example for 5 marks) e. 2 major categories of error; 1 or 2 examples of errors that would cause % yield to be over 100% and 1 or 2 examples that would cause % yield to be under 100 %. (5 marks) DUE DATE: March _____ 25 marks 25 marks

Creatively illustrate your chemical reactions and stoichiometry.

Some examples:

- **Use objects (clay) to illustrate the reactants and products**
- **Use a food recipe to illustrate the reaction**
- **Write a short story having the reactants & products as characters.**
- **Do a puppet show or drama illustrating reactions**
- **Create lyrics for a reaction or stoichiometry song**
- **Create a reaction stoichiometry game**
- **Create a cue card matching or/and placement exercise**
- **Create a worksheet with a variety of questions (MC, NR, Matching, Short Answer)**

Score	Scoring Description
25 (5)	Demonstrates a thorough & correct understanding of the concept, idea or skill. The project is well organized and addresses all the major learning outcomes using information provided to the student in the class notes/discussion. The project also addresses other worthwhile learning outcomes . More than one Multiple Intelligence Strengths is used to illustrate understanding of the whole concept, idea or skill.
20 (4)	Demonstrates a thorough & mostly correct understanding of the concept, idea or skill. The project is well organized and addresses a majority of the learning outcomes . One or more Multiple Intelligence Strengths may be used to illustrate understanding of the whole concept, idea or skill.
15 (3)	Demonstrates a somewhat correct understanding of the concept, idea or skill. The project is organized and addresses most of the major learning outcomes . At least one Multiple Intelligence Strength is used to illustrate understanding of part of the concept, idea or skill.
10 (2)	Demonstrates a poor but partly correct understanding of the concept, idea or skill. The project is disorganized and addresses some of the major learning outcomes . Partial use of one Multiple Intelligence Strength is evident to illustrate the understanding of part of the concept, idea or skill
5 (1)	Demonstrates a poor and incorrect understanding of the concept, idea or skill. The project is very disorganized, superficial and addresses few of the major learning outcomes . There is little or no Multiple Intelligence Strength being used.
0	The project does not address any of the major learning outcomes provided. There is little or no evidence of a Multiple Intelligence Strength be used.