Unit 3 Exam Review

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| ***Teacher:*** | Ms. Athwal | ***Date:*** | November 4 - November 8 | ***Course:*** | Chemistry | ***Grade:*** | 11 |
| ***CA Standard(s):***  3a *Students know* how to describe chemical reactions by writing balanced equations.  Math Remediation – Dimensional Analysis  3b *Students know* the quantity *one mole* is set by defining one mole of carbon 12 atoms to have a mass of exactly 12 grams.  3c *Students know* one mole equals 6.02 × 1023 particles (atoms or molecules).  3d *Students know* how to determine the molar mass of a molecule from its chemical formula and a table of atomic masses and how to convert the mass of a molecular substance to moles, or number of particles,~~or volume of gas at standard temperature and pressure.~~  6a *Students know* the definitions of *solute* and *solvent.*  6d *Students know* how to calculate the concentration of a solute in terms of grams per liter, molarity, parts per million, and percent composition. | | | | | | | |
| ***Learning Objective (s):***  LT 3.1 – I can discuss the law of conservation of mass and how it relates to chemical reactions.  LT 3.2 – I can explain how to balance a chemical reaction.  LT 3.3 – I can discuss how to convert between two related units and explain how to complete a multi – step conversion problem involving unrelated units.  LT 3.4 – I can discuss the concept of a mole, the number that it represents, and how the overall size of it can vary between substances  LT 3.5 – I can identify the solute and solvent in a given solution.  LT 3.6 – I can calculate the molarity and percent composition of a solution and discuss what the final concentration indicates.  LT 3.7 – I can calculate the molar mass of given element or compound.  LT 3.8 – Given an element, I can convert between the number of moles to grams and grams back to moles  LT 3.9 – Given an element, I can convert between the number of moles to particles and particles back to moles  LT 3.10 – I can analyze a substances molarity and determine the number of grams of a compound that are contained within a solution. | | | | | | | |
| ***Essential Question(s):*** What am I actually eating? | | | | | | | |
| **Assessment**:   * Learning Tracker Log * Unit 3 Exam | | | | | | | |
| * ***Do Now***:   **Catalyst Questions (Monday/Tuesday):**  1. What is the molarity of 42 g of NaOH in 5 L of water?  2. What is the molarity of 2 moles of HBr in 10 L of solvent?  **Catalyst Questions Wednesday:**   * 1. How many particles are in 2 moles of NaOH? * 2. How many moles are in 36.044 x 1046 particles of HBr? * 3. What is the percent composition of H in HBr? * **Catalyst Questions Thursday/Friday:** * Write down 3 things you learned this unit * Any Last minute questions before the test? | | | | | | | |

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| **WHOLE GROUP/ DIRECT INTRUCTION** |
| * Solutes and Solvent * Molarity |

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| **SMALL GROUP STATION** |  | **COLLABORATIVE STATION** |  | **COMPUTER ASSISTED STATION** |
| [Stations Review Worksheet](3.8.Stations%20Review.doc) Unit 3 All |  | [Connect Four worksheet](../3.6/3.6.AP.Connect4.doc) |  | Unit 3 Blogging all |