***Lesson Plans for the Week of: 11/14/16 Teacher: Hough Course: Chemistry Period: 9***

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| Elements of  a Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/  Focus/  Essential  Question | CH.2a;4a  --Use periodic table to determine the number of grams in 1 mole of an element or compound | CH.2a;4a  --Convert between mass and moles of a substance | CH.2a;4a  --Convert between mole and # particles  Senior pictures | CH.3c;4a  Differentiate between empirical, molecular, and structural formulas | CH.3c  Convert empirical formulas to molecular formulas |
| Lesson/Act.  Type of Presentation | Whole group:  Review the concept of the mole. Now state that the periodic table gives information about moles in each square  Parts of one square of periodic table: note that the atomic mass is given in tiny units called atomic mass units (amu)  For elements, atomic mass is the molar mass (the number of grams in one mole). For compounds, the molar mass involves adding the atomic masses of the elements in the formula. (Make reference to particle diagrams on p. 313-314)  Sample problem: Determine the molar mass of Be, nitrogen (review that pure nitrogen is diatomic), the work up to compounds like NaOH, CO2; repeat the significance of the capital letters and the numbers  Student practice: p. 315#7,15  Differentiation: copies of sample problems | Individual:  Bellwork: calculate the molar mass for oxygen  Whole group:  Model mass↔mole conversions using the following demonstrations:  1) Find #g in 0.750 mol CsI;  2) Find #moles in 58.2 g CaF2  Individual:  Students practice p. 338 #62 d, #65#d  Practice as needed:  Unit 5, worksheet 2, side 1  differentiation: (a)increased explanation for lower level students, as required; (b) copies of sample problems | Whole group:  Go over homework  Calculator instruction in putting NA into calculator using the EE key, especially when NA is in the denominator  Model particle↔mole conversions using the following demonstrations:  1) Find #particles in 0.750 mol C12H11O22;  2) Find #moles in 3.61 x 1024 particles of KCl (tell students that a formula unit is a term used to refer to the smallest unit of one type of compound)  List the various terms which can be used to mean “particles”  Students practice p. 309#3-4, adapt p. 311#5-6 to use molecules | Whole group:  Define and give examples of empirical, molecular, and structural formulas  Individual:  Practice converting mixed g↔mole and mole↔particle problems  Go over  Exit pass | Whole group:  Review types of formulas from yesterday’s lesson  Model how to convert from empirical formula to molecular formula  Individual:  Practice converting empirical formula to molecular formula |
| Evaluation |  |  |  | Accuracy of exit pass | Student accuracy in practice |
| Extension/  Homework |  |  |  | Extension: convert empirical formulas to molecular formulas |  |

MATERIALS:

Monday: textbook, chemistry modelling worksheet?

Tuesday: unit 5ws2

Wenesday:

Thursday: modeling ws3

Friday: Student practice: p. 339 #76-79: p. 333#41-42