Hope High School

Chemistry

**“Observations of a Single and Double displacement Lab”**

March 5th, 2012

Due date: March 14th, 2012

Project Description:

Use data obtained from lab investigation to support the concepts of physical, chemical, changes by writing simple balanced chemical equations to represent chemical reactions and illustrate the conservation of matter.

Central Questions:

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| * What information is needed in order to predict products of a chemical reaction? * How does a balanced chemical reaction illustrate that matter is conserved during a chemical reaction? |

Assignment:

Write a lab report to showcase the results and your knowledge of writing simple balanced chemical equations to represent chemical reactions and illustrate the conservation of matter

Requirements:

* Participate in lab investigation, obtain data.
* Calculate results and answer lab questions.
* Write Lab Report *[Include sections listed below, use lab criteria sheet and rubric]*
  + Title Page
  + Introduction
  + Data Tables
  + Conclusion

School Wide Expectations and Standards:

* **School Wide 1-0, 4-0, 4-1**
* Write effectively and communicate, solve problems as a scientist.
* Apply and connect learning to real life situations
* **PS2 (9-11) –6 a Students demonstrate an understanding of physical, chemical, and ~~nuclear~~ changes by** writing simple balanced chemical equations to represent chemical reactions and illustrate the conservation of matter.

**SCAFFOLDED TEACHING & LEARNING ACTIVITIES**

Activities that will support your students in learning the skills and content necessary to complete the Portfolio Project and Culminating Event.

* Student will identify evidence of a chemical change.
* Begin the explanation of chemical equations by focusing on how they are a standardize way of describing aspects of a reaction
* Students will transcribe description of reactions into this system and do the reverse- take equations and describe them in words.
  + Write balanced chemical equations. (3 days) [pp. 187-199; p. 187, Launch Lab; p. 189, 2Teach

Discussion; p. 204, ChemLab 6: Explore Chemical Changes; p. 199, Section 6.1 Assessment,

Problems 6 and 7]

* + Balance a chemical equation to illustrate that matter is conserved. (1 day) [pp. 187-199; p. 187, Launch Lab, p.189, 2Teach Discussion; p. 204, ChemLab 6: Explore Chemical Changes; p. 199,Section 6.1 Assessment, problem 8]
  + Classify chemical reactions as synthesis, single displacement, double displacement, decomposition, or combustion. (2 days) [pp. 200-207; p. 204, ChemLab 6: Explore Chemical Changes or p. 49, Laboratory Manual, Types of Chemical Reactions; p. 207, Section 6.2 Assessment, problems 11 and 12]
  + Demonstrate understanding of concepts and skills learned in this unit

**Embedded/Formative Assessments**

Section 6.1 Assessment (p. 199, problems 6-8)

Section 6.2 Assessment (p. 207, problems 11 and 12)

Section 6.3 Assessment (p. 221, problems 16 and 18)

Chapter Assessment (pp. 223-224, problems 20, 22-24, and 40)