Krug Chemistry – Deep Run Daily Planning Guide

Date of Lesson: Q3 Day 2 – Types of Reactions Lab

Topic /Big Questions: (Question Stems & Question Creation Chart)

- **How is mass conserved in chemical reactions?**
- **What patterns can be seen in chemical reactions?**
- **How can identifying the reactants enable chemists to predict the products?**

State SOL	Unpacking the Standards (Video explanation shown at 3:18)
CH.3	CH.3 The student will investigate and understand that atoms are conserved in chemical reactions. Knowledge of chemical properties of the elements can be used to describe and predict chemical interactions. Key ideas include f) **reaction types can be predicted and classified**.
CH.4	CH.4 The student will investigate and understand that molar relationships compare and predict chemical quantities. Key ideas include a) Avogadro's principle is the basis for molar relationships; and b) stoichiometry mathematically describes quantities in **chemical composition** and in chemical reactions

Visible Learning (For the three items with asterisks*, think from a student perspective. Use simple language)

***What am I learning today?** The Law of Mass Conservation means the number of atoms in the reactants must equal the number of atoms in the products. Patterns in the type of reactions enable chemists to predict the products.

***Why is it important?** The Law of Mass Conservation means that the number of atoms must be balanced on both sides of the chemical equation.

***How will I know I've learned it?** I will identify the nature of the reactants and products in order to identity the types of reactions, balance the number of atoms on both sides of the chemical equation, and write a balanced chemical equation.

Differentiation strategies:

Types of Reactions Lab

Accommodations and/or modifications are being met for students with IEP's/504's.
Small group activities; frequent checks for understanding; materials available on Schoology;

Daily Plan/Sequence of Instruction:

Students will be divided into small groups as they rotate through 6 different lab stations. They will record their observations of the reactants and products on the **Types of Reactions Lab** worksheet and/or lab notebook. Teacher will review each reaction after the rotations are complete to make sure students have pertinent information. Teacher will verify the products of each reaction in order for students to fill-in-the blanks on the second page of the lab worksheet. Students will then convert the chemical names into chemical formulas in order to write a balanced

chemical equation. Students will identify the type of chemical reaction for each station.

Assessments (List all formative/summative assessments used to check for understanding during this lesson. Summative assessments may occur during a different class period.):

Types of Reactions Lab Report – (summative)

After assessing today's lesson are you and your students comfortable moving forward with your next objective?

Yes - students scored 80% or higher on the Types of Reactions Lab Report

No, remediation required to proceed – tutoring will be available during One Lunch; if students fail the lab report, they will be allowed to do corrections for up to a 65% passing score.

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