Krug Chemistry – Deep Run Daily Planning Guide

Date of Lesson: Q4 Day 5 – Unit 11 Quiz and Theory of Acids and Bases

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

- **What determines the strength of solutions?**
- **Which solutes are the most soluble?**
- **How do solutions conduct electricity?**
- **How do chemists prepare solutions?**
- **How do chemists dilute solutions?**
- **What is an acid?**
- **What is a base?**

State SOL	Unpacking the Standards (Video explanation shown at 3:18)
CH. 5	CH.5 The student will investigate and understand that solutions behave in predictable and quantifiable ways. Key ideas include a) molar relationships determine solution concentration; b) changes in temperature can affect solubility; c) extent of dissociation defines types of electrolytes; d) pH and pOH quantify acid and base dissociation; and e) colligative properties depend on the extent of dissociation.

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

***What am I learning today?** Solutions are homogeneous mixtures. Electrolytes are dissolved ionic salts, acids, and bases. Molarity is a measure of concentration in moles/liter. Diluting a solution makes it less concentrated. Acids are proton donors. Bases are classified in different ways depending on which theory is used.

***Why is it important?** Solutions are homogeneous mixtures in which the physical properties are dependent on concentration of the solute and the strength of the interactions among the particles of solute and solvent. Molarity is used to quantify the amount of solute in the liters of solution.

***How will I know I've learned it?** I will score 80% or higher on the Unit 11 Quiz. I will identify acids and bases. I will identify conjugate acids and bases.

Differentiation strategies:

Unit 11 Quiz

Theory of Acids & Bases PowerPoint

Theory of Acids & Bases Guided Notes

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; small group testing

Daily Plan/Sequence of Instruction:

Unit 11 Quiz

Students will take the Unit 11 Quiz, which covers solutes, solvents, solutions, electrolytes, molarity, and dilution.

Theory of Acids & Bases

Teacher will explain the chemical and physical properties of acids and bases and how to identify them using the Arrhenius theory, Bronsted-Lowry Theory, and Lewis Theory. Teacher will use Theory of Acids & Bases PowerPoint as students follow along with guided notes.

Assign **Why Do Chemists Do Titrations?** for homework.

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

Unit 11 Quiz – (summative)

Theory of Acids and Bases Guided Notes – (formative)

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 Unit 11 Quiz

No, remediation required to proceed – students who are struggling can come to One Lunch for tutoring; teacher will contact parents / guardians if students score below 65%