

Week 8

INFORMATION FOR THE WEEK OF Mar 11

Read/pre-lecture problems ahead: Background reading for Chapter 4: Chapter 13, Introduction Page 525, 13.1, look up the terms *enthalpy, entropy, endothermic, and exothermic*. You might have to hit the index or the internet. They are important for envisioning the microscopic concept of solution formation and you will learn about them in Chapter 5. It is helpful to you if you know these terms ahead of time, as I use them sometimes in lecture. This is an important section even though we have not discussed energetics (Chapter 5). It takes energy to break apart interactions, whether intermolecular (see 11.1) or intramolecular (covalent and ionic bonds-chapter 8).

- 13.2: Know the terms-this section will be on the exam-either directly or as a concept you need to know to proceed with a problem.
- 13.4: This is on the exam. Try the Sample & Practice Exercises. I assigned some problems in section 13.4, however, there are more on pages 560-561. You should do as many as needed for mastery.
- Chapter 5: sections 5.1-5.4

Tuesday, Mar 12

Lecture— Chapter 4: Aqueous Reactions and Solution Stoichiometry; Chapter 13: 13.1-13.4: properties of solutions.

Lab— Experiment 20-Acid-Base Titration: Standardization of KOH and Determination of the Molarity and/or Percent Composition of an Acid Solution. Most students have at least 3 trials using about 10-15 mL of KHP to KOH. We will do a sample calculation for error in lab **BEFORE** titrating more trials. You need to show me your % error before you can start vinegar.

Thursday, Mar 14

Lecture— Chapter 13: 13.1-13.4: properties of solutions. Chapter 5: Thermochemistry.

Lab— Experiment 20-Acid-Base Titration: Standardization of KOH and Determination of the Molarity and/or Percent Composition of an Acid Solution.

Handouts from the website I might use during lecture:

- NIE-you will get a copy in lab with your lab partner-Due 3/19
- Chapter 4: Handout 1 Solubility chart (passed out last Thursday), Handout 3: Net ionic equation Worksheet (passed out last Thursday), Handout 8: Common oxidation values, Handout 9: Oxidation and reduction Workbook, Handout 10: Activity series (I will make a copy), Handout 14: Molarity, Handout 15: Mixed molarity problems, LR Solution Stoichiometry (I will make a copy)

The following assignments are due by March 14

Lab: 3/12 Exp. 8: Double Displacement Reactions 3/14 Exp. 9: Single replacement reactions

Mastering: Nomenclature Dynamics are a great way to study for the exam. They are available all semester for practice. 3/9: Pre-lecture: 4.6; 3/14: HW 4.4

Other: 3/19 NIE-in time for you to review for the exam.

The following assignments are past due.

- LR-graphing-dry-lab
- Exp. 6-Thermal Decomposition of sodium bicarbonate

Additional announcements

- March 16: Zero Waste Youth Convergence. I will know more about this on Monday
- March 21 is no school. Use this time to study (and play).
- Exam 2: March 28th
- Please check seating assignments for the exam. The exam starts at 9:00 am. The exam is in A236 and A 235. You will be assigned seating. If you are late, you will not get extra time.
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