

Quiz Dates: February 2, 6, 11

TEST- February 13

Honors Freshman Physics/Chemistry

Chemical Reaction Study Guide

The goals of this unit will allow each student to:

- a. gain a better understanding of **how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions.**
- b. continue making proper scientific measurements and calculations
- c. define and properly use all vocabulary
- d. properly apply all terms in describing/explaining real world examples
- e. relate these concepts her/his daily activities and behaviors
- f. teach someone else the concepts discussed
- g. practice proper laboratory safety

Performance Objectives: After completing this unit, when asked in class or on a written test or quiz, each student will:

1. Use the periodic table & common ion sheet to determine oxidation numbers for monatomic & polyatomic ions.
2. Predict whether the combination of two elements will result in an ionic or a covalent compound
3. Write formulas and names for binary & tertiary compounds (ionic, covalent, acids)
4. Identify the diatomic elements and describe the bonding resulting in them
5. Determine indicators of a chemical reaction specifically precipitation, gas evolution, heat and light.
6. Identify reactants and products of a chemical reaction
7. Recognize symbols used in a chemical equation
8. Explain how the law of conservation of mass relates to atoms in a chemical reaction.
9. Balance a given or written chemical equation according to the law of conservation of matter/mass .
10. Translate a balanced chemical equation into words including chemical names, # of atoms/molecules/units, and states.
11. Translate and word equations (including states).
12. Predict the products formed in a reaction and balance the equation based on given reactants (names or chemical formulas).
13. Use activity series and solubility rules to identify "No Reactions" (N.R.) for single and double replacement reactions
14. Distinguish between an endothermic & exothermic reaction.
15. identify and describe the five main types of chemical reactions
16. use previous/current observations of reactions to identify unlabeled substances

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Name: _____ Period: _____

This sheet will be used to keep track of reading, homework assignments due dates and scoring. Each individual homework assignment is **worth 25pts** and must be turned in on the **DUE DATE**. This sheet must be kept and turned in on the TEST DATE for the unit. Late homework will not be accepted.

In order to receive FULL CREDIT for a homework assignment, your work must reflect **quality***. All assignments must be labeled and out on your desk at the start of the class period along with this sheet.

***Quality Work** is having the answer reflect the question. On **UV** assignments, the terms and definitions are written out. (Answering with the "term" only is not quality.) Each assignment turned in must be labeled with the following in the right-hand corner of the paper. Your Name, Date, Period, Homework # , Unit Name (Periodic Table)

Textbook Reference – Physics A First Course – CPO Science

Textbook Homework

UV-Understanding Vocabulary RC-Reviewing Concepts SP- Solving Problems AYK- Applying Your Knowledge

Due Date	Read	Homework Assignments 1 - 4	Teacher Signature
Feb. 3	p. 263-266 & Printed Notes & online powerpoints	p. 276 UV: 4-8 RC: 6-12 & Worksheet- Introduction to Chemical Reactions- pg. 1: Questions: 1 - 9 see powerpoint on class website	
Feb. 5	p.263-266 & Printed Notes & online ppts	p. 277 SP: 4(a-f) & Worksheet- Balancing Equations pg. 1: Questions 10-11 & Worksheet- Writing Equations pg. 2: Questions 12, 14, 17, 18 see powerpoint on class website	
Feb 9	p.263-266 & Printed Notes & online ppts	p. 277 SP: 5(a-d) 6(a-e) & Worksheet -Balancing Equations pg. 3: Questions 19-26 & Worksheet-Writing & Balancing Equations pg. 4: Questions 27, 29, 31	
Feb. 11	Printed Notes & online ppts	Worksheet- Types of Reaction pg. 5: Questions 35-43, 1-4 & Worksheet- Predicting Products pg. 6: Questions 1-6	
Total Homework Score			
Points Added to Test			

Check the class Website to get updates or to print out a new assignment sheet or other docs.

www.waltonhigh.org → Departments→ Science →Honors Freshmen Physics → Spring Handouts → Current unit.

Lingo to be learned - definitions are provided on-line

synthesis reaction, decomposition reaction, single displacement reaction, double displacement reaction, subscript, yield, oxidation number, coefficient, endothermic, exothermic, chemical equation, reactants, products, combustion reaction