

AP CHEMISTRY

Congratulations on your decision to take Advanced Placement Chemistry! This class has the potential to be one of the most fun & rewarding classes that you will take in high school. However, please be advised that many people have found AP Chemistry to be a particularly challenging course with a particularly challenging exam, even when compared with other AP courses and AP exams. Remember also that AP classes are taught as college courses—not just college-*level* courses, but actual college courses. This means that:

- I will do as much as I can to *help* you learn, but you and you alone are responsible for learning and understanding everything covered in class.
- I will tell you when everything is due, but I won't chase after you. If you were absent and you need to turn in an assignment late, *you* need to remember to show it to me; do not assume I will ask you for it.
- If you're having trouble with something, you need to be proactive about learning it, either by coming in for help after school, consulting with your classmates, or by getting outside help. This expectation is effective immediately, and it applies to this summer assignment. Remember—*your* job is to succeed; *my* job is to do everything in my power to help you be successful.
- The requirements for this course are comparable for any college course, except that this course is a full year (not just a semester) of college chemistry. It will require much more time and effort than did your first high school chemistry course and most of your other courses. Each chapter has problem sets at the end and completing these problems will be an expected routine part of your homework. In addition, I will assign problems from other sources. I expect you to put forth your best efforts. If you do, you will succeed in this course and earn a 5 on the AP Exam (up to 8 college credits.)
- The goals of this summer assignment are to make sure you haven't completely forgotten Chemistry I, to give you a "warm-up" for AP Chemistry, and to frighten off anyone who's not serious about doing the work.

The assignment consists of an exam from a national chemistry competition, nomenclature review worksheets, and some textbook problems that combine multiple concepts from Chemistry I.

All parts of the assignment are due on **the first day of class**.

You may work with your friends in the class, as long as you list the names of the people you worked with and each person turns in a separate copy.

I am assuming that you are comfortable with the basics: stoichiometry, equation and formula writing, balancing, gas laws, etc. The first three chapters of Masterton & Hurley Chemistry: Principles & Reactions will be your summer assignment with a quick review and then a test in the first weeks of school. After that, we will move at a pace of approximately one chapter every two weeks in our **new textbooks** that are debuting next semester. This course also includes laboratory experiments which require writing pre-labs and formal lab reports. The AP exam is scheduled for May 11, 2010, and I expect everyone to take the exam. Additional time after school will also be required to prepare for the AP exam.

If you have questions this summer, please e-mail me.

Ms. Morse

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AP Chemistry Summer Assignment

This should be a good review of what you mastered in your first chemistry course.

Part I : Inorganic Nomenclature Worksheets 1 & 2 (below)

Part II: Read the chapters before attempting to solve the problems.

Chapter One : problems 63-70

Chapter Two : problems 49-62

Chapter Three: problems 8-16 EVEN, 24, 29-32 all, 39, 46, 51, 55, 56, 63,
68, 69, 71

- Your work should be neat and organized.
- Show all work where applicable. Credit will be given only if work is shown.
- The answers to even numbered problems are at the back of the book in Appendix 6, so you may check your progress.
- **There will be a test on this material within the first two weeks of school.**

Part III: Take the practice “Summer Exam” without using books or notes or any other outside help. Allow yourself 90 minutes to complete it. You will take a similar exam the first week of school to see if you are ready for this class.

If you did not pick up a textbook and Summer Exam from me, you may get that in the Guidance Office from Monday to Thursday this summer.

Inorganic Nomenclature WS 1- Write the formulas for the following compounds.

1. mercury(II) fluoride	26. phosphoric acid
2. potassium chloride	27. lithium permanganate
3. potassium permanganate	28. iron(III) hydrogen phosphate
4. potassium perchlorate	29. sodium carbonate
5. zinc oxide	30. magnesium hydrogen carbonate
6. barium hydroxide	31. tin(IV) phosphate
7. ammonium permanganate	32. nitric acid
8. calcium carbonate	33. zinc chloride
9. barium phosphate	34. sodium dihydrogen phosphate
10. iron(III) oxide	35. mercury(I) chloride
11. cobalt(III) fluoride	36. iron(II) nitrite
12. carbonic acid	37. copper(II) ammonium phosphate
13. potassium sulfate	38. sodium magnesium phosphate
14. sodium hydrogen sulfate	39. tin(IV) hydrogen carbonate
15. phosphorus pentafluoride	40. sodium permanganate
16. silver oxide	41. potassium fluoride
17. lead(II) chlorite	42. calcium sulfate
18. copper(I) chromate	43. hydrochloric acid
19. calcium perchlorate	44. antimony trichloride
20. acetic acid	45. tetraarsenic decoxide
21. lithium iodide	46. ammonium chloride
22. aluminum sulfate	47. ammonium nitrate
23. hydrobromic acid	48. iodine pentafluoride
24. mercury(I) hypochlorite	49. sodium hydrogen carbonate
25. chromium(III) chloride	50. barium hydroxide

Inorganic Nomenclature Worksheet 2

Print the name of each of the following compounds on the line next to the formula.

1. FeCl_3
2. HF
3. PbSO_4
4. KrF_2
5. NaCl
6. P_2O_5
7. AlBr_3
8. $\text{Ba}(\text{NO}_3)_2$
9. BrF_5
10. P_4O_6
11. FePO_4
12. Hg_2SO_4
13. KH
14. $\text{Co}_2(\text{SO}_3)_3$
15. N_2O_3
16. N_2O
17. $\text{Fe}(\text{NO}_2)_3$
18. $\text{Sn}_3(\text{PO}_4)_2$
19. H_2O_2
20. $\text{Be}(\text{OH})_2$
21. $\text{Sr}(\text{HCO}_3)_2$
22. $\text{Sr}(\text{OH})_2$
23. P_4S_{10}
24. Hg_2O_2
25. $\text{Hg}_2(\text{OH})_2$
26. NH_4F

27. XeF ₆
28. K ₂ Cr ₂ O ₇
29. NH ₄ OH
30. (NH ₄) ₃ PO ₄
31. N ₂ O ₅
32. SnCrO ₄
33. Al ₂ O ₃
34. CuCO ₃
35. ClO ₂
36. CuS
37. MgI ₂
38. CoCl ₃
39. NaCN
40. Hg ₃ N ₂
41. BrO ₃
42. SiF ₄
43. Sb ₂ O ₅
44. LiH
45. SF ₆
46. SnI ₄
47. KOH
48. K ₂ O
49. H ₂ SO ₄
50. Li ₂ O