

AP CHEMISTRY SUMMER ASSIGNMENT

2008–2009

Contact Info: Mr. Trubic (rtrubic@yahoo.com)

Due: Thursday, August 14 at St. John's Main Office

The book you will be using is *Chemistry* by Zumdahl, 7th Edition. The book has a pink and purple cover with the title *Chemistry*, ISBN 978-0-618-71370-7 or 978-0-618-52844-8; either is fine, they are both the same book. By the time the first week of school is over, you will have reviewed/learned Chapters 1–3. You must have your textbook with you on the first day of school. The textbook and the Barron's study guide are the only required materials for the class. I suggest you read and review Chapters 1–3 before school begins so that you will be up to date with what we will be covering the first week of classes. There will be a quiz that Friday on the material.

Questions to complete:

Chapter 1 (6 questions): 4, 32, 42, 72, 76, 92

Chapter 2 (7 questions + the assignment below): 18, 24, 50, 64, 66, 70, 92

Read Sections 2.1–2.5. In this reading, you will come across some information about the important scientists listed below. You must state why the scientist is important, and what great discovery each one made. They are listed in alphabetical order, but your textbook lists them in chronological order, so you may want to keep track of where you found the information in case you ever need to refer back to it.

Example: Avogadro was the founder of *Avogadro's hypothesis*, which states that at the same temperature and pressure, equal volumes of different gases contain the same number of particles. He made this discovery with the help of Gay-Lussac's findings. (pg. 44)

Avogadro	Dalton	Millikan	Thomson
Becquerel	Gay-Lussac	Proust	
Boyle	Lavoisier	Rutherford	

Chapter 3 (13 questions): 4, 5, 10, 11, 40, 46, 62, 68, 90, 104, 118, 138, 144

The following portion of the assignment is HIGHLY RECOMMENDED, not required:

Based on your successful completion of basic high school chemistry, there are certain things you are expected to know for the AP chemistry exam. I suggest making note cards to review the following concepts if you are still uncertain about them. The page number and table in your textbook is given for easy reference.

- Polyatomic ions (pg. 62, Table 2.5; there will be others introduced throughout the year as well)
- Solubility rules (pg. 144, Table 4.1)
- Strong acids and bases (pgs. 131, 627, and 644)
- Transition metals and their charges—*e.g.* Iron can exist as Fe^{2+} and Fe^{3+} , but never exists as Fe^+ . (pg. 59, Table 2.4 and pg. 61, Figure 2.22)
- Conversions for metric units (pg. 9, Table 1.2)
- The *i*-words (ions, isotopes, isomers)
- Nomenclature (naming)—*very* important!