

Summer Study Guide AP Chemistry 2016-2017

Version 5/28/2017

Welcome to AP Chemistry. It is best to think of it as a 200 level university general chem course. That's because the only students who take it are on average much more gifted and prepared than those taking freshman chemistry, so more is expected of them, I guess. It's going to be hard, but way kewl. I believe you can do this, or I would not have allowed you to register for AP Chem. I will go through the fire with you.

Over the summer we do the first 5 chapters which are mostly review and an intro to oxidation/reduction and electro chemistry. There are some extensions to what we already know like non-ideal gas laws. I will also cover a few extra things that will help you.

You will need to come to my classroom to sign out a textbook and get some handouts before leaving for the summer. Handouts are not yet available, but are expected some day next week from the copy center. I am sending this now for anyone who is leaving a little early for the summer. **GET THE TEXTBOOK.** We can always share the handouts electronically if there is a delay.

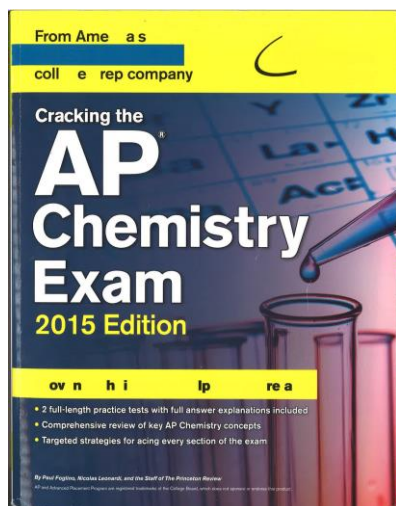
The summer assignments from the textbook are on the attached letter. You are responsible for reading (not skimming) the first 5 chapters in the text and doing the problems this summer. They are harder than you are used to. If you procrastinate until two days before school starts, you **WILL FAIL** the first test in AP Chemistry and may never catch up. If that is your plan, best to drop AP Chemistry.

During the summer, I will be available several times to cover material and review the problems with you, after you have tried to do them (and not always succeeded). If you can't make a meeting, that's ok. Be sure to do the work and reading, including the handouts. Keep in touch we friends and classmates. The first meeting is Saturday June 17th, Woodside Creamery, 1:30pm. If it is raining, we will meet instead at my house.

I have a lot of your feedback on when you are not available, and it looks like we will need to schedule several extra times this summer to fit into more schedules. I am too overloaded to schedule beyond June 17th at this point. Let's get past the 4th marking period.

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Not a very good screen shot ☹

AP Chemistry will use the Princeton Review AP Chem study guide. We will work out of the 2016 or 2017 edition. Charter will use the same guide but use it later in the year. The answers for every question is in each section

You should get one. This one cost about \$21 at the Barnes and Noble in the Mall. You might be able to get a better price. If getting one is too big of an obstacle, e-mail me immediately.

The text is deceptively easy. The problems are more like what is on the AP test. You will probably need to use the internet or contact each other to figure some of this out.

Meeting schedule sent out soon. steven.field@redclay.k12.de.us cell 302-605-6513

Assignments

We will be covering the 1st five chapters from the Zumdahl text (problems below). When we get together over the summer, we will be going over the questions that you select you are having trouble with. As you read the chapters, please note the following:

- Sections 3.6, 3.7 and 3.11 are new and you should spend some time looking at them.
- The method for balancing redox reactions in 4.9 is over simplified. I will give you more.
- Chapter 5 has more “creative” shortcuts and methods for solving PVnRT problems. New sections: pay particular attention to gas over water (water vapor mixtures) on page 212 as these have appeared on previous AP tests, molecular velocity on page 220, and non-ideal gas behavior in sections 5.7 and 5.8.

- Chapter 1 - Page 38: problems 89, 99 and 101
- Chapter 2 - Pages 76-78: problems 67, 71, 77, 79, 83, 85, 87 and 95
- Chapter 3 - Pages 128 - 133; problems 37, 39, 41, 45, 49, 51, 53, 55, 57, 59, 61, 77, 81, 83, 87, 93, 95, 101, 107, 111, 117, 123 and 125.
- Chapter 4 - Pages 181-184; problems 23, 27, 35, 49, 55, 65, 69, 71, 77, 79 and 81
- Chapter 5 – Pages 236 – 240; problems 43, 45, 49, 51, 61, 63, 65, 67, 73, 77, 81, 85, 95, 105 and 109

Did I intend to give you all the problems? Yes. AP Chemistry is equivalent to 6-8 credits of level 200 Chemistry at the University. We are going to need to be very efficient to prepare you.

Summer meetings: Hockessin Public Library 7pm, Woodside Creamery, or my house

- Dates to be determined.