Studying for Chemistry Tests

Just how do you study for your chemistry 12 test? Chemistry 12 is a challenging course full of difficult concepts so it takes a lot of devoted preparation to be truly prepared for a unit test.

Chemistry 12 tests are usually 30 multiple choice questions and a written section worth 20 marks (6-10 questions).

The Study Plan that you must avoid!!

* Read over my notes and it all seems familiar. I’m ready for my test.

Why doesn’t this work?

On a test you have to DO questions, not just do read things over. During a test, you have a question in front of you and you have to figure it out without your notes in front of you.

This is called the ‘familiarity’ problem. You look over your notes and recognize everything. You feel prepared. You get the test back and are shocked at the bad grade...’but I knew it all’.... However, you may have been familiar with the concepts, but can you APPLY the concepts (ie. do you really understand the concepts) to a series of questions that are placed in front of you with no hints or references (an actual TEST).

What does work?

Studying needs to be ORGANIZED.

**Before Starting Your Studying**:

1. Make a study plan. For a unit test, you should study for at least three days with NO CRAMMING.

**DAY 1**

1. Start by making sure all your notes are complete. Access the notes online if not (<http://courses.spectrum.sd61.bc.ca/teacherFolders/Quast/internet%20pages/chemistry12.htm>). Start by reading over all of the notes in the unit. This gets you to interact with your notes and gives you an idea of everything that is fair game on the test. You may even do this twice.
2. Go back to the first section in your notes and read the main concepts/ideas over. Cover any questions in your notes and try to answer them either mentally or on scrap paper. Then check the answer by peeking at your notes. You may even do this twice.

**DAY 1 AND DAY 2**

1. WRITTEN RESPONSE PRACTICE - Complete any of your unfinished assignments to solidify concepts you have not yet practiced sufficiently and work on the unit review (written response questions - <http://courses.spectrum.sd61.bc.ca/teacherFolders/Quast/internet%20pages/chemistry12.htm>) to simulate questions you may see on the test. Pick, at random, 7 or 8 review questions and save these for a self-test the night before. If you want to practice more written response questions, go to a practice provincial exam webpage and practice applicable questions from the written response section (keys available).

**DAY 2 AND DAY 3**

1. MULTIPLE CHOICE PRACTICE – Access old provincial exams and practice as many questions as you can on the unit you are studying. The more you practice, the more prepared you’ll be for the test. Try to practice at least 100 questions, or more!

Links:

<http://www.quizmebc.ca/> - access the ‘QuizWiz’

<http://www.bced.gov.bc.ca/exams/search/> - recent provincial exams from the BC Ministry of Education

<http://www.angelfire.com/geek/chem12/> - old provincial exams dating back to 1994

On provincial exams, the kinetics questions are always at the beginning (1-6 or 1-7 for multiple choice and usually #1 for written), equilibrium is usually #7-14ish and #2 on written, solubility is usually 15-21ish and #3 on the written, acid/base is usually 22-38ish and #4, 5, 6 on the written, and redox is usually 39-50ish and 7-9 on the written. These are approximations and differ depending on each individual provincial exam.

There are different strategies to solving multiple choice questions. You can: figure out the answer from the question directly, figure out the answer by process of elimination, or use the answers and test them in the question to see which answer is correct.

**DAY 3**

1. Find some multiple choice questions that you haven’t yet used to practice with (maybe 20-30 of them). Combine these with the 7 or 8 questions you saved from your review and do a practice unit test. Mark your test and pay attention to which types of questions you got wrong. Spend some extra time on those concepts or find some more practice questions for those concepts so you know them well for the test.

The six steps above are a good guide on how to study for math. Students may not do exactly what is suggested above, but it should be similar. What components are essential to doing well?

What does your studying need?

1. An organizational system that ensures you’ve studied THOROUGHLY, ie did you address everything that could possibly be on the test.
2. You need to DO questions to study, not simply READ or look over your notes.
3. Your studying should definitely include a test simulation...a practice test that you make up to see if you’re really prepared.
4. Extra work on concepts/questions that are troublesome.
5. More than one day. Cramming does not work for most people, as all the concepts will run together. If you find you need extra help from your teacher, you have the time to get it.

What are your goals?

As mentioned earlier, Chemistry 12 is a very challenging course. What may have worked for students in the past to get an ‘A’ (familiarity studying, little to no studying – even in Chemistry 11) will not work for most students in this course. To get a great mark in this course, your study habits have to improve. And why shouldn’t they, with post-secondary fast approaching!

I have had conversations with many students wondering why they don’t have an ‘A’ in this course because they are an ‘A’ student. Many of the students who typically get ‘A’s in all of their other courses will not automatically get an ‘A’ in Chemistry 12. It takes a commitment to working very hard, and learning and employing better study habits. Even then, some students will not reach ‘A’ level. However, what Chemistry 12 is, is a very challenging learning experience that will hopefully help you become better at studying and a better self-learner in general.

Do you have the motivation, the drive, to go for an ‘A’ in this course? It won’t just be handed to you. How hard are you willing to work for it? Do you have the courage to change your study habits for it, even though it will mean more time and energy?

Test Anxiety

Test anxiety is a problem some students have to learn to deal with and improve. I highly recommend searching this topic on the internet. There are many techniques students can use to help alleviate anxiety. There is not one way that works for everyone so it’s up to a student to try a variety of things and find what works for them. Tests are a harsh reality for students in grade 12 and post-secondary, so it is something that students must actively and constructively learn to deal with.

Last (Difficult) Thoughts

Now, I have to say something tough here… and this is after seeing and

talking to hundreds of students over the years…  anxiety cannot take a

student who really knows the material and make him/her completely fail a test.

I’ve talked to MANY students who, upon failing a test, tell me that

they “really knew the material” but “just got nervous and blanked out”.  After

doing a little digging, it always turns out that they really didn’t know the

material as well as they thought they did.  This is usually due to the

“familiarity” studying problem I talked about earlier (poor study habits).  They looked over their

notes and homework and it all looked familiar.  So, they made the assumption

that they knew the stuff.  But, looking at completed notes and examples is very different

than looking at unanswered test questions that aren’t in the same order as

they appear in the book.

 Don’t blame a lack of success on other factors before you look into the mirror yourself. Are you doing all you can to do your best? Yes, there may be other things that are hindering your progress, BUT, are YOU doing all YOU can to do your best? Most times, the answer to that question is no. So what can YOU do, what is within YOUR control to change that? Are you doing all you can to improve? If you blame other factors for your lack of success, then you’re losing your power to improve. Take ultimate responsibility for your education.