

Tips for test taking

Chemistry is a challenging subject to study. The format is different from other classes. The test reflect the method by which chemistry is taught. Usually, there are math-type problems that require analysis of information and problem solving and concept problems that require short answers. The tests are not multiple choice ; the questions center about the interpretation of facts and concepts, not about opinions. There are special formulas, equations, and terms to be analyzed. The first test you take may seem too long or difficult or it might seem that I am picky about tiny mistakes, like the wrong significant figures or the wrong units. When looking over the material to be tested, you might feel overwhelmed and learning chemistry is an impossible task, but if you prepare for your exams, you will find that the panic and anxiety will be replaced by a feeling of accomplishment and understanding.

Read the following list of statements and place a mark near the statements that apply to you.¹

- I often feel overwhelmed by the vast amount of information I'm supposed to know for my chemistry tests.
- I'm so nervous when studying for an exam; I'm unable to concentrate on what I'm studying.
- I get so nervous that night before an exam that I have difficulty getting to sleep.
- When I'm taking an exam, I often forget important information that I know when I was studying.
- I study hard, but my professor always seems to ask the wrong questions.
- I often make stupid mistakes on chemistry tests.
- I am easily distracted during the chemistry test, so that I get confused about what I am doing.
- I often make mistakes on chemistry exams because I misread the questions.
- I think that I'd do a lot better on my chemistry exams if I were not so nervous about them.
- I really don't think I'm that smart and that's why I don't do better.

Tips for improving your chemistry test taking skills:

As you read the following tips, keep in mind the problems you experience with chemistry tests. Look for ways to change your behavior before, during, and after exams in order to improve your performance on tests and thus improve your grades.

Before the exam:

1. **Prepare early-** start to prepare the first day of class.
 - a. Find out the date of the exam.
 - b. Schedule regular study times.
 - c. Get into a study group of motivated students.
 - d. Collect material for the course.
2. **Schedule several study sessions for the exam.** Research has shown that you learn more and your retention is better if you learn the material over a number of short sessions rather than one very lengthy session. ***Give your mind time to learn!***
3. **Know the details.** You should find out the following before an exam:
 - a. Is the exam multiple choice, essays, short answer?
 - b. Is there partial credit?
 - c. Will you be penalized for guessing?
 - d. How much time will you have to take the exam?
 - e. How much will the exam count for your grade?
 - f. What percent of the exam will be taken from lecture, textbook, etc.?
 - g. Will there be special seating?
4. **Look at copies of previous tests** - if they are available

¹ Brault & MacDevitt, Chemistry Survival Skills, Chapter 6' Taking a Chemistry Test';vD. C. Heath and Co., 1988, pages 70-85

5. **Develop summary sheets as preparation for the test.** In making up a summary sheet, you review the notes you took throughout the semester. The information is categorized according to the topics.
6. **Work one or two example problems from each principle that has been discussed.**
7. **Use 3x5 cards to test yourself for review.** These cards are good for learning definitions, terms, nomenclature, and solubility rules.
8. **Study under the same conditions that you will be taking the test.** If there is a time limit on the test, practice working new problems in a limited time period. Do this *after* you have sufficiently learned the material. Estimate, for instance, if the test has ten problems in 60 minutes that you will have about 6 minutes per problem. Choose some moderate problems and work them quickly but completely in six-minute time blocks. *Practice keeping your cool while working quickly.*
9. **Other ways to control your anxiety while studying for your exam:** try meditation, aromatherapy, soothing music, or chocolate during your study breaks.
10. **Do the following the night before:**
 - a. Relax!
 - b. Review
 - c. Ready your materials
 - d. Rest - you must have sleep to be able to think clearly!
11. **The day of the exam:**
 - a. Eat a good breakfast or lunch.
 - b. Get to school early.
 - c. Wear earplugs!
12. **During the exam:**
 - a. Jot down important stuff on the test paper.
 - b. Read the directions carefully.
 - c. Make corrections on the exam.
 - d. Read each question carefully.
 - e. Start the problems that are easiest for you.
 - f. Budget your time.
 - g. Organize your solution.
 - h. Work multiple-choice problems just like you would other problems.
 - i. Don't leave the exam early.
 - j. Check your work.

After the exam: Go over your exam when you get it back. Determine why you made the mistakes you did.

Most mistakes are due to the following:

- Did not study enough for the exam and therefore, did not understand the material at the level of the exam.
- Incorrect use of significant figures and scientific notation.
- Forgot your calculator, used an unfamiliar calculator, incorrect use of calculator.
- Not following directions.
- Not making the corrections that were written on the board.
- Not reading the entire problem. In doing so, the answer was wrong.
- Using math manipulations incorrectly.
- Presenting a solution to a problem in a form that is disorganized and difficult to read.
- Solving a problem both incorrectly and correctly and letting the professor decide. **Warning - you get zero credit if you do this.**
- Not completing a problem.
- Illegible handwriting.
- Not including units on intermediate or final answers.
- Rounding wrong.
- Using the wrong exponents.
- Answer was not placed in scientific notation for numbers larger than 1000, or smaller than one-thousandth.
- Spending too much time on one problem at the expense of another.
- Coming in late for the exam.

- Inability to recall information due to nervousness.
- Inability to concentrate on the exam due to nervousness.
- Did not clarify the final answer—you will lose 50% credit if you do this. (for example, giving the rounded and un-rounded version for the final answer.)

Test taking guides

Distractions

Sleepiness

Nervousness/anxiety

Full bladder

Upset stomach or tense stomach muscles

Tense neck and shoulder muscles, tightness in chest

Tightness around neck, chest waist, middle, and feet

Attractive person, smelly person, ugly (in your eyes) person, annoying person

Windows

Concern about time

Panic because you don't know the answer.

Too cold, too hot, too hungry, too thirsty

Remember that it is your task to do well on all tests. These remedies can increase your chances of doing just that, so don't be ashamed or embarrassed to do these things. You are the one who needs good grades, so do what you have to do to get them (outside of CHEATING, of course). Don't worry about what someone else thinks.ⁱ

Remedy

Get a good night's sleep before the test.

Study WELL ahead of time and don't cram at the last minute.

Cramming leads to panic and insecurity.

Go to the bathroom right before the test, not back at the dorm or home.

Relax stomach muscles and take an antacid, if necessary, before and/or during the test

1) roll head clockwise and then counter clockwise in a full circle (2-3 times in each direction.

2) Roll shoulders in a circle 2-3 times in one direction and then 2-3 times in the other direction

3) Do five deep-breathing exercises (inhale all the air you can and then slowly exhale). Let go of half of your tension with each exhale.

Wear loose fitting and comfortable clothes.

Sit where you can't see, hear, or smell them. If you are assigned a seat near someone who is a distraction, inform the instructor (ME) and I will move you.

Sit away from windows

Wear a watch and use it to pace yourself

Memory dump. (Jot things down as you think of them, even when doing other questions. Organize them later.)

Bring a sweater, water, a quiet, non-stinky snack (chocolate or cheese or bread and butter).

ⁱ This information was gathered from personal experience and Chemistry Survival Skills; Margaret A. Brault & Margaret L. MacDevitt; Northern Michigan University. D. C. Heath and Company; Lexington, Massachusetts, Toronto. ISBN: 0-669-17143-3. It is currently out of print, but it is a great book to prepare you for any science class.