

## How to Study for and Take a Test

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Studying for a test is an art form in itself. Students can be science wise and still be unable to do well in a formal school setting because of a lack of understanding of how to prepare for a test or an inability to take one well. Assuming there are no learning disability issues, we hope to simply help students understand how teachers prepare tests, and thereby better understand how to prepare for one.

On the subject of preparing for a test, memorization cannot be overlooked as an important element of test-taking. Some students enjoy memorization while others despise it. The truth is, you can't be a really good student (where grading is concerned) without developing some skill at it. Different students memorize information using different techniques. I personally memorize by writing things longhand over and over until I can do it without looking at a cue card. Others memorize by recitation (this is the worst one for me). Still others memorize using mnemonic devices such as acrostics and associations. This is probably the best way to keep things in long-term memory but can require quite a bit of time and creativity to devise.

Our courses are designed to teach principles through book learning followed by kinesthetic practice. We believe that this is the best way to learn and understand a discipline, even though, in the classical sense, it isn't the best way to score high on a test. These quizzes are prepared in recognition that students want to (and their parents want them to) perform well when they get to college and to remember as much of their foundational material as possible to make the college experience easier. Not everyone will take these quizzes. Of those who do only a fraction will excel at it. Use them in keeping with your own educational goals, philosophies and desires.

The following are some steps for the student to take in preparation for any test—especially mine:

1. Write a list of vocabulary words and be sure you can define them. Watch especially for any term in bold letters. The glossary in the back of the book will help, but these terms must be understood before a formal definition is really helpful. Never ignore a boldface term. (Example: Define the word **fulcrum**.) Also remember any names you read.
2. Look for anything that the test might ask you to list. (Example: State Newton's three laws of motion.) Write out that list by hand and memorize it.
3. Ask your teacher if he/she will give you some clues on what information to memorize for the test. For example, if there is a long table of birds, you don't want to have to memorize everything on the table. Perhaps there is a bird or two or even a classification scheme that you should know. In biology, classification is very important, so memorizing the classifications that are the subject of a particular lesson is very important in getting a good grade.
4. Think of the different kinds of questions that are often asked on tests and make up your own test in your mind. Here are the types of questions most used:
  - a. Matching (Example: Match the following words with their definitions.) Any chapter having a lot of related terms (as for example, differentiating all the

various organs that make up the digestive system) can easily be tested using this method. Since all the potential answers are provided in this format, it is often used as much as a reminder as it is to see if they can remember something themselves. If tests were made up of only matching problems, test scores would be high on average.

- b. Fill-in-the-blank (Example: Name the founder of classical physics.) I tend to use this type of question if there is a term or list of terms I want the student to be able to recall without prompting. (I tend to reserve this most difficult testing method for terms I think are important in a student's ongoing education.)
- c. True/False (Example: Acceleration under gravity is constant for all objects.) Since you are assured 50% on a T/F test, even if you know nothing at all about the subject, a good student can score 75% on one without preparing. Just be sure and read the question carefully. Any question that cannot be formatted in a better way may find its way to this section. It's a good method for testing retention of brief tasks.
- d. Multiple choice (Example: Substances that flow are called: a. fluids, b. flowers, c. solids, d. liquids). There are clearly two reasonable answers here, but one of them is the best. These questions will often separate the good student for the average student.
- e. Math-based problems (Example: After three second fall, what will be an object's velocity?) Only students who have prepared well and have a good grasp of math concepts will score well on these questions.
- f. Essay questions (Example: Please explain how hemoglobin might be thought of as a part of either the circulatory system or the respiratory system.) These questions are asked infrequently because they are time consuming for students to write a response and time consuming to grade. The grading of such questions is usually somewhat subjective. This is the best testing method, however, when the students must demonstrate an understanding of a complex point.

When you are preparing for a test, try to picture how the information you are reading might come back to you in the form of a test question. Prepare yourself to answer all the questions you can imagine.

- 5. You should never be surprised to see that a question in your daily exercises comes back again in a slightly different form as a quiz question. Always re-study the correct answers to the exercises and correct any mistakes or omissions you make.

Following these guidelines in preparing for a test will seem excessive to some, but those who follow them completely will undoubtedly have consistently good test scores (barring reading/learning difficulties).