

READING THE TEXT BOOK

Reading the textbook can be an overwhelming experience for many students. The textbook contains new terms, formulas, and concepts that seem foreign to the beginning chemistry student. The chapter also contains sample problems, illustrations, and tables, which are part of the learning process. The student often views reading a chemistry text as a time consuming and boring process. By improving reading skills and actively practicing navigating the textbook, the beginning chemistry student can become a more efficient reader, gaining a better understanding of the reading, and while retaining more information.¹ Here are some problems that beginning students often experience while reading chemistry textbooks.

Yes	No	Statement
		When I read the chapter, the material seems to go in one eye and out the other.
		The instructor has already covered this in lecture, and I followed that so I skimmed the chapter.
		I read the chapter, but stopping to do the sample problems seems dumb.
		The basic terms in the text are new and confusing.
		The problem examples look easy, but when I try the ones at the end of the chapter, they are hard.
		The text is boring-I often daydream while reading or listen to music.
		It seems like there is too much to know and I can't do it.
		I study an hour a week, but I forget the important terms and formulas.
		I fall asleep when I am reading my chemistry book
		I understand the material when I read it but it seems like I have forgotten everything when it is time to review.

Some tips for reading your test book:

1. Skim through your textbook, look at table of contents, and read the preface. Skimming a chapter gives you a framework to understand the material once you begin reading.
2. Look at the appendices. These contain tables of constants, reference data, math reviews and answer keys.
3. Use the index and glossary to check for key words.
4. Skim each chapter before you read it. Pay attention to words or terms in bold.
5. Keep a 'reading' notebook. The notebook includes-key words, equations that are important, redrawn illustrations (you can Xerox and paste, but... the material becomes more effectively embedded when you dissect it and own it.), how the reading aligns with the lecture.
6. Examine tables, figures, and diagrams under subtitles while skimming.
7. Use post-it notes to mark important sections that might need more review.
8. Read the text sentence by sentence. Stop periodically to review what you have learned so far. Ask yourself questions! Test yourself! Often textbooks have the homework divided into sections that correspond to the text.
9. Once you read a section, do a sample problem to see how well you understand the concepts.
10. Work through ALL the example problems, even the "reading for meaning" problems.
11. Use any illustrations in the text or draw your own to help you visualize the concept.
12. Outline the chapters.
13. Use 3X5 cards to write down key terms and formulas that you need to memorize.
14. Recitation. Reciting concepts aloud, in your own words, is one of the best ways to **learn** and **retain** information. It promotes concentration helps you understand the next paragraph ensures that the terminology and formulas are learned correctly, and provides the reader with automatic feedback.
15. Review the chapter using marginal notes, rereading and working assigned problems.
16. Do more problems. Test yourself using a problem-solving book, like the Schaum's series or another textbook.

¹ Brault, Margaret A., and MacDevitt, Margaret L., Chemistry Survival Skills. D. C. Heath and Company, 1988: page 37-4378

Check List: The checklist seems long and daunting, but consider focusing on one to three points in the list. It takes a while to build good habits.

Yes	No	Statement
		Before reading my first chemistry assignment, I skim the text.
		I am familiar with the appendices in my chemistry textbook.
		I skimmed the chapter before I read it.
		I become familiar with important tables, figures and diagrams while skimming a chapter.
		I read, and note any words defined or underlined.
		I read each paragraph, sentence by sentence. I pause to think about what this paragraph or sentence is teaching me.
		I don't skip unfamiliar terms. I look them up in the glossary or index.
		I am an active reader
		I work example problems after reading the section or paragraph that discusses the information in the problem.
		I use the illustrations, copy them, and sometimes create my own.
		I add any significant material gleaned from the text to my lecture notes.
		I use 3x5 cards to organize important information, and memorize (familiarize).
		I use recitation after reading a paragraph.
		I use recitation when I review.
		I work all the assigned problems and more. I realize the grade I get in chemistry is reflected by the amount of work I put into actively studying.