



The Academic Centers for Enrichment Department at Middlesex Community College hopes you will find this material useful and looks forward to your feedback and/or suggestions regarding the material in this handbook.

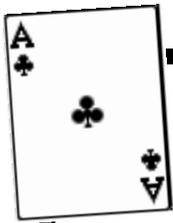
If you would like more information about the strategies found in this handbook, you may contact Noreen McGinness Olson, Director of Academic Support Programs at Middlesex Community College, by email or telephone.

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Middlesex Community College



About the College

While there are many paths to higher education at Middlesex Community college, all of our programs are geared towards the reality of modern life and to the educational needs and preferences of students, especially those with jobs or family responsibilities. Here you will gain the freedom to choose an academic associate degree or certificate program, or one of our short-term, highly focused programs of intensive instruction in selected career fields, including some accelerated options with classes scheduled at a variety of convenient times: Saturdays, Sundays, mid-afternoons, and evenings.

Bedford Campus

Our Bedford campus spreads over 200 acres with eleven buildings. Together, they are equipped with classrooms, laboratories, offices, library, and a student center. Located off Springs Road, near the Billerica border, close to Routes 128 and 3.



Lowell Campus

This Campus is in the heart of downtown Lowell with easy access to restaurants and stores. The City Building is at Kearney Square, and the Health and Science & Technology Center (that includes our open-to-the-public dental clinic) is on Middle Street.



TABLE OF CONTENTS

Learning Styles Inventory	4
Keys to College Success	12
How to Impress Your Instructor	13
Personal Checklist for Success	16
Learning from Lectures	17
Listening & Note-taking	19
Cornell Method of Note-taking	20
Textbook Reading	24
KWL Reading Strategy	25
The SQ4R Study Method	27
Studying in Groups	28
Insuring Success: Points to Remember	29
The Curve of Forgetting	31
Memory Tips	32
A Memory Habits Checklist	34
Managing Your Time	35
Time Management Chart	36

Name _____

Date: _____

Learning Styles Inventory (LSI)

	Yes	No
1. I like to listen and discuss work with a partner.	_____	_____
2. I learn by hearing my own voice on tape.	_____	_____
3. I prefer to learn something new by reading about it.	_____	_____
4. I often write down the directions someone has given me so that I don't forget them.	_____	_____
5. I enjoy physical sports or exercise.	_____	_____
6. I learn best when I can see new information in picture form.	_____	_____
7. I am able to visualize easily.	_____	_____
8. I learn best when someone talks or explains something to me.	_____	_____
9. I usually write things down so that I can look back at the later.	_____	_____
10. If someone says a long word, I can count the syllables that I hear.	_____	_____
11. I have a good memory for old songs or music.	_____	_____
12. I like to discuss in small groups.	_____	_____
13. I often remember the size, shape, and color of objects.	_____	_____
14. I often repeat out loud the directions someone has given me.	_____	_____
15. I enjoy working with my hands.	_____	_____
16. I can remember the faces of actors, settings, and other visual details of a movie I saw in the past.	_____	_____
17. I often use my hands and body movement when I'm explaining something.	_____	_____
18. I prefer to practice redrawing diagrams on a chalkboard rather than on paper.	_____	_____
19. I seem to learn better if I get up and move around while I study.	_____	_____
20. If I wanted to assemble a bike, I would need pictures or diagrams to help with each step.	_____	_____
21. I remember objects better when I have touched them or worked with them	_____	_____
22. I learn best by watching someone else first.	_____	_____
23. I tap my fingers or my hands a lot while I am seated.	_____	_____
24. I speak a foreign language.	_____	_____
25. I enjoy building things.	_____	_____
26. I can follow the plot of a story on the radio.	_____	_____
27. I enjoy repairing things at home.	_____	_____
28. I can understand a lecture when I hear it on tape.	_____	_____
29. I am good a using machines or tools.	_____	_____

	Yes	No
30. I find sitting still for very long difficult.	_____	_____
31. I enjoy acting or doing pantomimes.	_____	_____
32. I can easily see pattern in designs.	_____	_____
33. I need frequent breaks to move around.	_____	_____
34. I like to recite or write poetry.	_____	_____
35. I can usually understand people with different accents.	_____	_____
36. I can hear many different pitches or melodies in music.	_____	_____
37. I like to dance and create new movements or steps.	_____	_____
38. I enjoy activities that require physical coordination.	_____	_____
39. I follow written directions better than oral ones.	_____	_____
40. I can easily recognize differences between similar sounds.	_____	_____
41. I like to create or use jingles/ rhymes to learn things.	_____	_____
42. I wish more classes had hands-on experiences.	_____	_____
43. I can quickly tell if two geometric shapes are identical.	_____	_____
44. The things I remember best are the things I have seen in print or pictures.	_____	_____
45. I follow oral directions better than written ones.	_____	_____
46. I could learn the names of fifteen medical instruments much easier if I could touch and examine them.	_____	_____
47. I need to say things aloud to myself to remember them.	_____	_____
48. I can look at a shape and copy it correctly on paper.	_____	_____
49. I can usually read a map without difficulty.	_____	_____
50. I can "hear" a person's exact words and tone of voice days after he or she has spoken to me.	_____	_____
51. I remember directions best when someone gives me landmarks, such as specific buildings and trees.	_____	_____
52. I have a good eye for colors and color combinations.	_____	_____
53. I like to paint, draw, or make sculptures.	_____	_____
54. When I think back to something I once did, I can clearly picture the experience.	_____	_____

Scoring Your Profile

1. Ignore the NO answers. Work only with the questions that have a YES answer.
2. For every YES answer, look at the number of the question. Find the number in the following chart and circle that number.
3. When you finish, not all the numbers in the following boxes will be circles. Your answers will very likely not match anyone else's in class.
4. Count the number of circles for the Visual box and write the total on the line. Do the same for the Auditory box and the Kinesthetic box.

Visual					Auditory					Kinesthetic				
3,	4	6,	7,	9	1,	2,	8,	10,	11	5,	15,	17,	18,	19,
13,	16,	20,	22,	32	12,	14,	24,	26,	28	21,	23,	25,	27,	29,
39,	43,	44,	48,	49	34,	35,	36,	40,	41	30,	31,	33,	37,	38,
51,	52,	54			45,	47,	50			42,	46,	53		
<i>Total:</i> _____					<i>Total:</i> _____					<i>Total:</i> _____				

Analyzing Your Scores

1. The highest score indicates your preference. The lowest score indicates your weakest modality.
2. If your two highest scores are the same or very close, both of these modalities may be your preference.
3. If all three of your scores are identical, you have truly integrated all three modalities and can work equally well in any of the modalities.
4. Scores that are 10 or higher indicated you use the modality frequently.
5. Scores lower than 10 indicate the modality is not highly used. Most often, it is because you have had limited experience learning how to use the modality effectively as you learn. In this case, learning new strategies can strengthen your use of the modality.

Common Characteristics

The following chart shows common characteristics of each of the three types of learners or learning styles. A person does not necessarily possess abilities or strengths in all of the characteristics but may instead “specialize” in some of the characteristics. Some of this may be due to a person’s educational background or background of experiences. For example, an auditory learner may be strong in the area of language skills but may not have had the experience to develop skills with a foreign language or music.

VISUAL

- Learn best by seeing information
- Can easily recall printed information in the form of numbers, words, phrases, or sentences
- Can easily understand and recall information presented in pictures, charts, or diagrams
- Have strong visualization skills and can look up (often up to the left) and “see” information
- Can make “movies in their minds” of information they are reading
- Have strong visual-spatial skills that involve sizes, shapes, textures, angles and dimensions
- Pay close attention and learn to interpret body language (facial expressions, eyes, stance)
- Have keen awareness of aesthetics, the beauty of the physical environment, and visual media

AUDITORY

- Learn best by hearing information
- Can accurately remember details of information heard in conversations or lectures
- Have strong language skills that include well-developed vocabularies and appreciation of words
- Have strong oral communication that enable them to carry on conversations and be articulate
- Have “finely tuned ears” and may find learning a foreign language relatively easy
- Hear tones, rhythms, and notes of music and often have exceptional musical talents

KINESTHETIC

- Learn best by using their hands (“Hands-on” learning) or by full body movement
- Learn best by doing
- Learn well in activities that involve performing (athletes, actors, dancers)
- Work well with their hands in areas such as repair work, sculpting, art, or working with tools
- Are well-coordinated with a strong sense of timing and body movements
- Often wiggle, tap their feet, or move their legs when they sit
- Often were labeled as “hyperactive”

Learning Strategies

Now that you are aware of your own learning style, you can begin to select learning strategies that work with your strengths: In the following charts you will find a wide array of learning strategies for you to try; the majority of your strategies will likely come from your area of strength. However, a valuable goal to set for yourself is to strive to integrate all of the modalities into your learning process; therefore, try using several of the strategies for your weaker modalities as well. As you will also notice, some learning strategies will incorporate more than one modality. Multisensory learning strategies have the capability of strengthening your memory even more.

VISUAL

- Create stronger visual memories of printed materials by highlighting important ideas with different colors of highlighters or by highlighting specific letters in spelling words or formulas or equations in math.
- Take time to visualize pictures, charts, graphs, or printed information and take time to practice recalling visual memories when you study.
- Create “movies in your mind” of information that you read; use your visual memory as a television screen with the information moving across the screen.
- Use visual study tools such as visual mappings, hierarchies, comparison charts, and time lines to represent information you are studying. Expand chapter mappings or create your own chapter mappings to review main ideas and important details in chapters. Add colors and/or shapes or pictures.
- Enhance your notes, flash cards, or any other study tools by adding colors and pictures (sketches, cartoons, stick figures).
- Color-code study tools. (Different colors imprint into memory more easily for some students.) Colors can be used to accentuate specific parts of textbooks, notes, or any written materials you work with or you have created.
- Copy information in your own handwriting if seeing information on paper in your own hand-writing helps you learn and remember more easily. Practice visualizing what you write.
- Use your keen observational skills to observe people and pick up on clues they may give about important information, emotions, or their general state of being.
- Always be prepared with a pen and notepaper (or a small notepad) to write down information or directions. (Written information is easier to recall more accurately.)

AUDITORY

- Talk out loud to explain new information, express your ideas, practice information you are studying, or paraphrase another speaker.
- Recite frequently while you study. Reciting involves speaking out loud in complete sentences and in your own words.
- Read out loud. (Reading out loud often increases a person's comprehension or clarifies confusing information that is read silently.)
- Work with tutors, with a "study buddy," or in a study group to have ample opportunity to ask questions, articulate answers, and express your understanding of information orally.
- For lectures, take your own notes, but back your notes up with a tape-recorded version of the lecture. (Request approval first from the instructor.) Review only the parts of the lecture that are unclear or confusing.
- When you practice reciting your notes, flash cards, study tools or information from a textbook, turn on a tape recorder. Tapes made in your own voice often become valuable review tools.
- Verbally explain information or processes to someone or to an imaginary person. Explaining verbally provides immediate feedback of your level of understanding.
- Make review tapes to review the most important information (rules, definitions, formulas, lists of information, dates, or other factual information) prior to a test.
- Create rhymes, jingles, or songs to help you remember specific facts.
- Read confusing information using exaggerated expression. The natural rhythm and patters of your voice often group information in such a way that it becomes easier to understand.
- Use computerized technology (electronic spell checkers, calculators with a "voice," speech synthesizers on computers) to help with the learning process. Access CD-ROM programs and multimedia software that provide auditory and visual stimuli for learning.

KINESTHETIC

- Handle objects, tools, or machinery that you are trying to learn. For example, handle the rocks you study in geology, repeat applications several times on a computer, or hold and use tools or parts of machinery that are discussed in class or in your textbook.
- Create manipulatives (study tools that you can move around with your hands). These may include flash cards or cards that can be shuffled, spread out, sorted, or stacked as a way to categorize information.
- Cut charts or diagrams apart; reassemble them in their correct order.
- Use exaggerated movements and hand expressions, drama, dance, pantomime, or role playing to assist the development of long-term memory. Muscles also hold memory, so involving movement in the learning process creates muscle memory.
- Type or use a word processor. Using a keyboard involves fine motor skills and muscle memory; it may be easier to remember information that you typed or entered into a computer.
- Talk and walk as you recite or practice information. Pacing or walking with study materials in hands helps some people process information more naturally.
- Work at a chalkboard, with a flip chart, or on large poster paper to create study tools. List, draw, practice, or write information while you stand up and work on a larger surface.
- Learn by doing. Use every opportunity possible to move as you study. For example, if you are studying perimeters in math, tape off an area of a room and walk the perimeter.

Keys to College Success

Researchers have identified certain things students can do to ensure success. Students are often unaware of what these “persistence factors” – or keys to success – are and how much they really matter. Here are twenty basic things you can do to thrive in college.



1. Find and get to know one individual on campus who cares about your survival.
2. Understand why you are in college.
3. Try to have realistic expectations.
4. Find a great academic advisor or counselor.
5. Visit the career center early in your first term.
6. Learn about the resources your campus offers and where they are located.
7. Know how to find information in your campus library, on the Internet, and through other sources.
8. Set up a daily schedule and stick to it.
9. If you're attending classes full-time, try not to work more than 20 hours a week.
10. Choose instructors who involve you in the learning process.
11. Show up for class.
12. See your instructors outside class.
13. Make at least one or two close friends among peers.
14. Join at least one study group.
15. Get involved in campus activities.
16. Improve your writing and speaking skills.
17. Assess and improve your study habits.
18. Develop critical thinking skills.
19. Polish your computer skills.
20. Take your health seriously.

How to Impress Your Instructor:



Don't Be a Joker!

Showing up in your PJs means you're ready to snooze not learn. Half the battle of feeling ready for the day is looking ready!

Do your homework! Not doing it is the same as showing up unprepared for class.

Remember, while usually a covered mug or capped bottle are fine to have, don't *eat* during class!

If you don't want to miss the first twenty minutes of a movie, then why show up late to class?

Be early. Arrive before class starts and find a good seat. Don't hide away in the back or the sides. Get your equipment out (pens, pencils, notebook). Quickly review your notes from the last session, and be ready to ask questions if you have any.

Greetings. Smile and say hello to the instructor (it makes him/her feel acknowledged) and your fellow students.

Dress and Demeanor. Research has demonstrated that neat attire and attitude go a long way. Don't show up in your PJs with bed hair. If you look ready to face the day, chances are you will feel ready to!

Prepare. Read the assigned material before the lecture. You will find you will need to take fewer notes and be able to listen more carefully. If an audio recording of the lecture would help, ask permission first

Food! Cars can't run without fuel and neither can you! While it may sound cliché, breakfast is the most important meal of the day. Not unsurprisingly, you will find it so much easier to focus on class and your studies when you are fully charged. Coffee can be a great pick-me-up too.

"The secret of success in life is for a man to be ready for his opportunity when it comes."

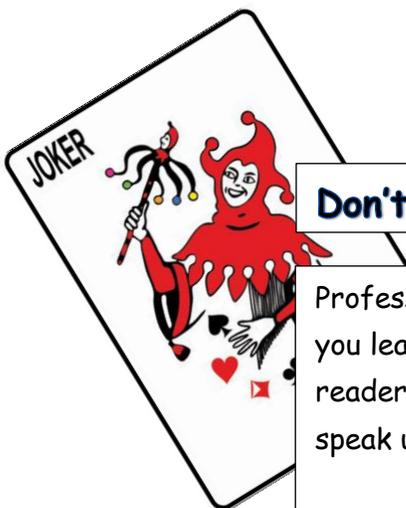
— Benjamin Disraeli

Read, Read and Read. College will require you to read much more on a weekly basis than most students are previously used to. In fact, a significant portion of your education may come from the reading material assigned to you. Lectures and seminars are designed to work congruently with the assigned reading, not necessarily to simply review it. This makes it vital to assign yourself designated reading periods every day, so you can keep up with your work load – or even get ahead!

Ask questions. While you should always make sure that you are caught up with the homework and have fully read the assignment instructions for answers to standard questions (due dates, page length, what chapters to read, etc.), it is important to seek help and clarification when you need it. The worst thing you can do is move ahead and misunderstand the material when a few questions could put you back on track.

Answer Questions too! You will get what you put into the class, nothing more or less. This means you *need to participate*. Demonstrating your knowledge by answering a professor's questions is a quick way to not only improve your participation grade, but also to reinforce what you're studying by applying it. It can also help build a rapport with your professor.

Write, Write and Write. Don't just assume you will remember what that star next to you notes means. After class when you have more time, go back and make sure to revise your notes so you know what they mean. If there are gaps, ask someone who knows. Make flash cards and create mnemonic devices for terms and concepts. Sometimes the act of thinking about and writing does just as much to reinforce the material as the actual flashcards do.



Don't Be a Joker!

Professors are there to help you learn but are not mind-readers. If you have a question, speak up!

Professor can come in handy when you later need a letter of recommendation. The more you participate, the better that letter will be!

The Study Space. Libraries and other student academic centers can really be the best way to increase your own productivity. These are places where everybody comes for the same thing: to study, learn and work. This atmosphere can help motivate you to stay on task because if you associate a specific area with a specific task, it is easy to get that work done. Now, your Study Space doesn't necessary have to be in public, it could be in the comfort of your own home. What's important is that when you're there, you are there to work.

Study with Someone Who Cares. Find people in the class who are really interested in learning. Work with them before, after, and between classes. Many classes have Supplemental Instruction (SI) which acts as a study group for that specific course.



Absences. If you are absent from a class, it is your responsibility to make up any work missed, not the professor's. Go to the professor's office to receive any work you may have to pick up; do not make your explanation in or before class. You can also ask classmates about what you missed.

Appear Teachable. It is amazing how much nicer a teacher can be when you act appropriately in the classroom. This does not mean asking any and all questions to get attention. In fact, if you formulate a question and write it down, sometimes it will answer itself, or the teacher will get to it. If not, you can ask it at an appropriate time.

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Personal Checklist for Success

Below is a list of successful study strategies. To be a successful student, you must find study strategies that suit your learning style. Review this checklist. Check the study strategies that you currently use. Choose three or four new strategies that you intend to work on over the next few weeks.

- _____ Keep notes separated by course, dated, and arranged in chronological order.
- _____ File the syllabus for each course at the start of that notebook AND refer to it at least twice weekly.
- _____ Preview textbook chapters and other reading assignments.
- _____ Practice SQ4R.
- _____ Develop study guides for each chapter.
- _____ Keep vocabulary log or vocabulary flashcards for the new terminology in each chapter.
- _____ Mark up all reading assignments, selecting main points and supporting details, looking up unfamiliar terms and writing marginal notes.
- _____ Take book notes.
- _____ Outline or map out textbook chapters.
- _____ Summarize textbook chapters and other reading assignments.
- _____ Tape record lectures and play back to fill in class notes.
- _____ Borrow the notes of a friend for comparison.
- _____ Attend weekly tutoring sessions at one of the tutoring centers or labs for support.
- _____ Before tests, compile a list of questions and answers for each chapter covered.
- _____ Study for tests with a partner or in a small group.
- _____ Practice for tests with a tape recorder.
- _____ Inquire about test content during faculty office hours.

Learning from Lectures:



How to Listen Effectively. Listening is one of the most important yet least recognized skill necessary for learning from lectures. To listen effectively, you must “engage” the speaker. This includes actively anticipating and questioning what the lecturer says and sorting or categorizing the information being presented. If you read over previous notes briefly before class and complete any assigned readings, you’ll be well prepared to be an effective listener.

Adapt to Instructors Style. Learning from lectures also means that you must adapt to the style of the instructor. He/she decides what topics the lecture will cover, as well as how quickly information is presented. Adapting to a fast or monotonous pace is a challenge for even the most experienced student. Getting information and advice on note taking strategies can be helpful if your skills are challenged by your instructor’s particular learning style.

Deciding What to Write Down. Some instructors may clearly indicate important content. Sometimes information on what’s important is implicit in the way the lecture is organized. Watch for verbal clues like “First...second...” which denote the series of important points, or more explicit clues like, “note that...” A general rule of thumb is that if the instructor takes the trouble to write something on the board, it is important. Nonverbal information, such as the instructor’s facial expression or tone of voice, can indicate that a topic is important. The amount of time the instructor spends on a topic may be another indication of its importance.

“He listens well who takes notes.”

–Dante Alighieri

The Course Outline. While distributed in the first class, this valuable resource is all too often skimmed and filed away for the duration of the course. The course outline can indicate which topics will be emphasized and what the organizational structure of the course will be. Keep your course outlines in a safe place and refer to them often.

Complete Assigned Readings

Give priority to completing assigned readings before class so that you won't be struggling to copy something that is already in your text. Doing the readings beforehand can also help you to listen more actively in class, predict the topics the lecture may cover and can give an advanced indication of any difficulties which you can then clarify in the lecture.

Work with a Partner

You can try working with a classmate to develop your note-taking skills. After class compare notes and analyze the differences. Discuss why you recorded something and your partner didn't, and vice versa. After several weeks, if you are still unsure whether you're getting down the important points, you can ask the instructor to give you some feedback on your notes from one lecture.



DO...date and number pages, write legibly, use loose-leaf paper, use only one side of the paper, leave space between topics, edit notes each day.

DON'T...depend on someone else's notes, habitually tape lectures, cause or tolerate distractions, assume for any reason that going to class is unnecessary.

Listening & Note-taking

1. Go to class – there is no substitute for the real thing.
2. Have assigned readings done before each lecture.
3. Listen actively by anticipating what the lecturer will say.
4. Screen and evaluate information by comparing your text and your own knowledge.
5. Concentrate.
6. Take notes. Note topics and subtopics. Use brief point form, putting things in your own words.
7. Use the margin or draw a column to note key terms or questions you have.
8. Use diagrams where possible, especially to illustrate relationships.
9. Review your notes before each class, and plan a weekly review which integrates lecture and text notes.
10. Ask your professor to clarify points you don't understand.

AFTER CORNELL METHOD

Class Notes

DATE: 2/9/99 TOPIC: Types of Bonds

Key Words/ Questions?	
Def:	<i>Bonds are forces that hold atoms together.</i>
What are bonds?	<i>1. Ionic Bonds – atoms gain or lose electrons. Electrons are transferred from one atom to another.</i>
	<i>EX. Sodium Chloride – NaCl (salt)</i>
	<i>Potassium Chloride – KCl (sea salt)</i>
	<i>Calcium Chloride – CaCl (road salt)</i>
What are the 3 types of bonds?	<i>2. Covalent Bonds – atoms share electrons</i>
	<i>EX. Methane and water</i>
Give an example for each one	<i>3. Hydrogen Bonds – partially positive hydrogen atom attracted to a partially negative atom.</i>
Diagram on page 2 of textbook	<i>EX. Hydrogen bonds hold water molecules together.</i>

<i>Summary: Bonds hold atoms together. There are three types (Ionic, Covalent and Hydrogen).</i>

Textbook Reading

1. Do required reading on a regular basis. Keep a weekly schedule.
2. Preview material to get an overview. See how the chapter is organized.
3. Consider the author's writing style and potential biases.
4. Use different reading speeds. Pay attention to your attention.
5. Think of questions to answer as you read through the material.
6. Reflect on the material as you read. Note important points. Integrate with lecture notes or in text margins.
7. Summarize what you have read. Note important points. Integrate with lecture notes or in text margins.
8. Take breaks. Set targets to work towards and take breaks.
9. Find a quiet, comfortable place to read. Your bed may not be the best place!
10. Review your readings on a regular basis.
11. Review course material weekly to keep material fresh in your memory.

KWL Reading Strategy

KWL is intended to be an exercise for a study group or class that can guide students in reading and understanding a text. You can adapt it to working alone, but discussions definitely help. It is composed of only three stages:

What we Know	What we Want to know	What we Learned
-------------------------	---------------------------------	----------------------------

K stands for Know

This first stage may surprise you: List what you know about the topic.

This advanced organizer provides you with a background to the new material, building a scaffold to support it. Think of it as a pre-reading inventory.

- Brainstorm! Before looking at the text, think of keywords, terms, or phrases about the topic, either in your class or a study group.
- Record these in the K column of your chart until you cannot think of more.
- Engage your group in a discussion about what you wrote in the K column.
- Organize the entries into general categories.

W stands for Will or Want

The second stage is to list a series of questions of what you want to know more of the subject, based upon what you listed in K.

- Preview the text's table of contents, headings, pictures, charts etc.

Discuss what you want to learn.

List some thoughts on what you want, or expect to learn, generally or specifically.

Think in terms of what you will learn, or what do you want to learn about this.

- Turn all sentences into questions before writing them down.

They will help you focus your attention during reading.

- List the questions by importance.

L stands for Learned

The final stage is to answer your questions, as well as to list what new information you have learned, either while reading or after you have finished.

- List out what you learn as you read, either by section, or after the whole work, whichever is comfortable for you.
- Check it against the W column, what you wanted to learn
- Create symbols to indicate main ideas, surprising ideas, questionable ideas, and those you don't understand!

Add an H! Expand this exercise beyond K W L:

Stands for HOW you can learn more.

- Pose new questions about the topic
- How can I learn more or answer questions not answered in my worksheet

These include other sources of information, including: organizations, experts, tutors, websites, librarians, etc.

K-W-L Worksheet

K What we know	W What we want to find out	L What we learned and still need to learn

Note: Figures from Olson, Mary W., & Gee, Thomas C. (1991, December). "Content reading instruction in the primary grades: Perceptions and strategies." *The Reading Teacher*, 45(4), 298-307. Reprint with permission of Mary W.. Olson and International Reading Association, All rights reserved.

The SQ4R Study Method

The following study method is useful for reading assignments. It can help you improve your understanding and memory of important information. The SQ4R method challenges you to become an active reader. Explained below, the SQ4R Study Method stands for:

Survey – This is the first step, one that can help save time. Begin by scanning and previewing the chapter before reading it. Consider supporting features such as the title, boldface headings, illustrations, graphs, and margin notes and summary. Ask yourself: What is the chapter about? What major topics are included?

Question – Turn headings into questions and try to figure out what information will follow. Ask yourself Who?, What?, Where?, When?, Why?, and How? (the 5 W's and 1H of journalism). By asking these questions and then seeking the answers to the questions, you can concentrate and focus your efforts.

Read – Now read the material that follows the first heading. Look for answers to your questions, spending most of your time on material that seems important. This question & answer process can help you become an active, rather than passive reader.

Recite – After you complete a section, look away from the material. Now see if you can recite the important points. This recitation will make clear exactly what you know and what you don't know. Reread as necessary until you can recite all of the important points in a section.

Record – As you recite important points (above), you also may want to record or write down all the information you feel you must remember. Record on a separate sheet of paper or on study cards. This recorded information could be in the form of questions and your answers.

Review – Now go back over all the material. Reread the headings. Study until you can recite to yourself all the important ideas in the chapter. Refer to your written notes as you review.

Studying in Groups:

Many students believe that studying alone is beneficial because they are able to accomplish goals on their own time in a location of their choice. However, dedicating some time to studying in groups has proven successful and is worth the extra time.

Studying in groups is an efficient way to learn course material because people are able to learn from one another in a more relaxed non-classroom setting. Comparing notes, studying for exams, and staying on task are important benefits of studying in guided groups.

Groups are able to construct knowledge and make meaning through a process of social interaction, exploration, application, and integration, which is otherwise difficult when studying alone.¹

By studying in groups, students can:

- Acquire short-term and long-term study skills from each other
 - Help prepare for exams by comparing notes, discussing important concepts, and developing study strategies
 - Receive higher course grades outside of class
 - Gain an increased level of comfort with class participation by collaborating with peers
 - Gain the skills and confidence to become independent learners
-



When students study in a group, they learn how to organize, analyze, and question information with their peers, which is difficult to do alone because one is restricted to one's own opinions and views on particular subjects.

Educators have proven that studying in groups not only helps with current course material, but overall academic growth:

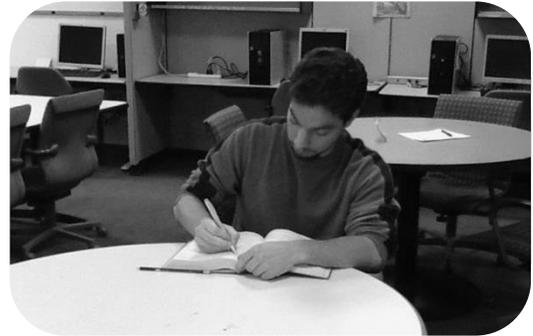
“If students are to grow as readers, writers, and thinkers, they must begin to take part in rich academic conversations within interpretive communities.”

– Lazar, A.M. (1995)

Insuring Success: Points to Remember

Marking Your Text

Text marking is really a fairly easy skill if you remember to use some basic strategies. Don't forget to read at least an entire paragraph before you begin to mark. Mark all of the important information that you want to review again before the exam. Use a simple system for marking that includes marking meaningful phrases and adding marginal notes or questions. Be sure you evaluate your marking both before and after the exam to test how effective it is. Finally, use the following example and your own texts to practice marking.



Marking Math And Science Texts

If you are taking a math or science course, you may be using text that has formulas and sample problems throughout the chapters. You can effectively mark this kind of text, too. Box or highlight all formulas, as well as the problems that you want to review. Be sure that you also underline, highlight, or pencil code the text material that explains or discusses that formula or problem. A lot of students ignore the prose material that is included in math and science texts. This material is as important as, or perhaps even more important, than the problems themselves.

Marking Literature Texts

Whether you are reading a short story, a play, a novel, or another type of literature, you can and should mark as you read. Marking a literary work is a little different than marking a political science textbook, but the same general principles apply. Instead of looking for main ideas and supporting details, though, you need to look for themes, major plot events, key information about the characters, examples of foreshadowing or irony, and so on. Until you become familiar with all of these literary terms, highlight or underline anything that seems to stand out as you read the story or play. Making marginal notes is also helpful in marking literature. Remember, also to make notes in the margin of your book as your instructor refers to specific lines or pages during the lecture.

Marking Outside Readings

Many professors assign reserved or library readings as part of the course material. These articles or parts of textbooks are not available for purchase. Instead, one or two copies of the material are placed on reserve in the library for students to read. You have three basic options

when it comes to reading reserved material. You can just read the material and hope that you will remember it for the exam (not a very good alternative). Second, you can read the material and take notes on it as you read. This is an effective method but does require a good bit of time in the library. Finally, you can choose the most popular method for dealing with library material: photocopy it and then mark it later. Because time is scarce for many students, this method is becoming more and more popular. Whatever you do, be sure to read, mark, and then review these outside readings before the exam; information from them surely will be included on the test.

The Curve of Forgetting

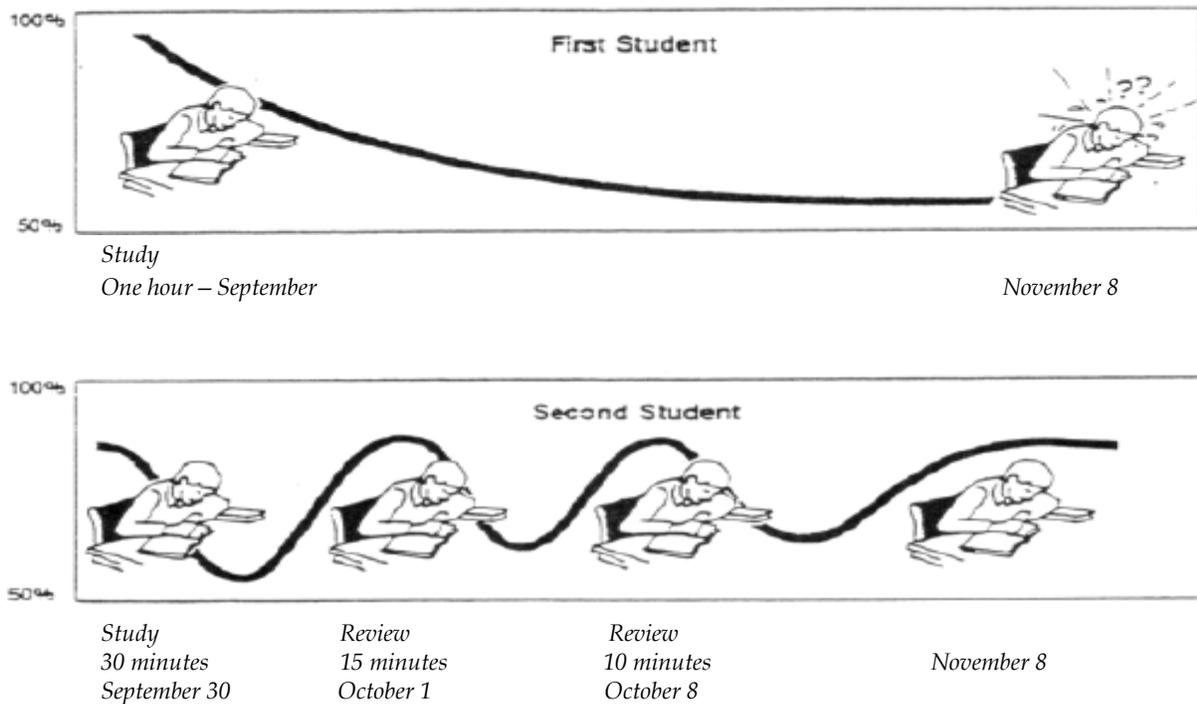
The next time you have a test or quiz for which you must study, use this information about *The Curve of Forgetting* to spread the learning.

Dr. F. Stanton pointed out the “curve of forgetting” to military officers returning to academic study after being out of school for several years.

Suppose you read an assignment today. When will forgetting take its greatest toll? The greatest loss will be within one day. Arrange your first review to check this drop.

12-24 hours after you study. Reinforce immediately.

You can retain longer through spaced reviews. You can place your first review to minimize forgetting.



- The first student studied one hour on September 30, and six weeks later retained very little.
- The second student studied only 30 minutes on September 30 but spaced out reviews. On November 8 it took this student just a five minute review to bring back the vital information with 100 percent mastery.
- Both students studied just one hour, but the one who spaced out the review had far better retention.

Memory Tips

Jot your personal comments on the suggestions under the “headings” in the left-hand column.

1. *What’s your attitude?*

What is your very favorite thing in life – a person? Baseball? Music? Reading? How tough is remembering new information about the particular thing? That answer reveals your “memory potential.” Are you impressed? You should be? (One student knows the batting averages of all the best players in the baseball leagues.)

“But,” you say, “math is no fun.” Keep telling yourself that and it never will be fun. Your prejudices affect your learning. Instead, give some extra time to the subjects you dislike. Research indicates that the more you know about any subject, the more interested you become. Positive achievement is likely to follow. Don’t be victimized by your own biases. You more readily forget what you don’t agree with, so you’ll reap remembering dividends by keeping an open mind!

2. *Do you intend to remember?*

Or do you just want to get the assignment out of the way? Without a conscious decision to remember, you probably won’t, and no one remembers what she or he has never really learned in the first place. Have high expectations of yourself! Focus on how good you’ll feel after reading, when you know the material instead of just the three songs that played on the radio while you “studied.” Also, studying subjects that are different, rather than similar, one after another (for example, history, then math rather than political science), guards against interference and forgetting.

3. *Do you personalize the material?*

Have you ever forgotten a friend's comments on why you're special? Or a compliment paid you by someone you truly admire? Probably not. This shows the power of your memory if you are personally involved. As much as you can, follow this same principle in studying. For example, while reading, ask yourself, "How am I affected by this?"

4. *Do you "chunk" the learning?*

Right now, list three major ideas from the last reading assignment you completed. If you can't do it, then you're choosing to operate at a handicap. When you've finished studying a chapter and can recall seven or so major points, you've got those "key thoughts" that trigger your recall of the related significant details. A prime contributor to comprehension and memory, then, is to categorize ideas.

5. *Do you "handle" the material?*

The more means you use to learn new material, the greater the likelihood you'll remember it. Draw pictures to illustrate points. Talk over assignments with friends. Recite information to yourself. Write notes on important points. Each one of these aids will increase your chance of recalling information the next time you need it. "Handling" the new ideas results in their moving from short-term to long-term memory.

Remember - if you don't use it, you will lose it!

6. *Do you recite and review regularly?*

Without any special study approach, you forget 80 percent of what you learn within two weeks! But you can reverse that trend if you recite (speak aloud) immediately after studying. Thereafter, review the content about once a week. When you feel that you've mastered the content, review it again - overlearn it - just to be sure.

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A Memory Habits Checklist

Write **yes** or **no** to each of the following questions:

When studying, do you:

Before

After

- | | | |
|-------|---|-------|
| _____ | 1. Try to get interested in the subject? | _____ |
| _____ | 2. Intend to remember the content? | _____ |
| _____ | 3. Give the subject your undivided attention? | _____ |
| _____ | 4. Try to keep an open mind to new ideas? | _____ |
| _____ | 5. Feel confident that you can remember if you want to? | _____ |
| _____ | 6. Search for the organization of ideas (using heading, summary)? | _____ |
| _____ | 7. Take care to accurately understand and learn the material in the first place? | _____ |
| _____ | 8. Recite from memory or quiz yourself immediately after reading each major section in a chapter? | _____ |
| _____ | 9. Review your class notes and readings once a week or more? | _____ |
| _____ | 10. Use several methods to reinforce learning and remembering, i.e., note taking, discussing with friends, and reciting aloud? | _____ |
| _____ | 11. Try to relate what you learn to what you already know and to your own life? | _____ |
| _____ | 12. Study subjects that are different, rather than similar, one after the other (for example, study history, then math rather than political science) to avoid interference and forgetting? | _____ |
| _____ | 13. Study in thirty- to forty-minute study sessions, with short breaks in between, to keep comprehension and memory at peak levels? | _____ |

Managing Your Time

One of the biggest obstacles to succeeding is failing to plan. Managing your time requires planning. Almost everyone has failed to plan at one time or another and suffered the consequences. When we don't manage our time, it manages us. You may find the following suggestions helpful:

Making Progress

1. **Turn big jobs into smaller ones.** Successful people will tell you that they often divide up their big jobs into smaller, more manageable steps. Spreading a project over a reasonable period of time will reduce the pressure that comes from letting everything go until the last minute. Tackle your tasks as they need to be done, and develop a process for working through the big jobs. Then follow your plan.
2. **Keep a weekly schedule.** If you haven't started a personal calendar to keep track of appointments and assignments, what are you waiting for? You'll have your day at a glance and be twice as likely to keep the appointments you write down. Design your planner to meet your needs; the more personalized you make it, the more likely you'll use it.

Note: Planners and calendars can be purchased at a reasonable cost if that seems easier than making your own. Also, most word-processing programs have built-in note pads and calendars.

3. **Make lists.** Making a daily list of things to do may strike you as overdoing it at first, but you'll soon change your mind. You'll also rest easier at night, knowing that you've got the next day covered.
4. **Plan your study time.** Good advice, but most of us seldom take it. Good planning means having everything you need where you need it. Schedule your study time as early in the day as you can, take short breaks, keep snacks to a minimum, interact with the page by asking questions (out loud, if not one objects), and summarize what you've learned before turning out the light.
5. **Stay flexible.** Plans do change and new things can pop up daily. Be realistic, willing to change those events that can be changed and exercising patience for those that cannot. You'll save yourself lots of wear and tear if you remain flexible and upbeat.

TIME MANAGEMENT CHART FOR WEEK OF _____

<i>Hours</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>	<i>Sunday</i>
7:00 AM							
8:00							
9:00							
10:00							
11:00							
12:00 PM							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
12:00 AM							

Use color codes for: A) work schedule; B) study time and location; C) class meeting time Plan Study Time: Multiply the number of course credits by two (2), this equals the hours needed each week for study time (Example: 9 credits X 2 = 18 hours per week for study time).