

The *Study Skills Sharpener* book is comprised of 30 lessons on how to become a better and more efficient student.

**Areas Covered:**

- Designing a study space
- Organizational skills
- Time management
- Prioritizing to avoid procrastination
- Goal setting
- Determining personal learning styles
- Applying personal learning styles
- The art of active listening
- Note taking skills
- Reading strategies for non-fiction
- Reading strategies for literature
- Memory tricks
- Grammar for writing
- Punctuation for writing
- Preparing to write a paper
- Finding resources for a paper
- Evaluating resources
- Writing skills
- Speech and oral presentation skills
- Strategies for studying a foreign language
- Strategies for studying math
- Strategies for studying science
- Strategies for studying history and social studies
- Strategies for test preparation
- Strategies for test taking
- Academic honesty and integrity
- Tips on when and how to get help
- Classroom behavior
- Balancing life outside of school

## Lesson #13

## Taking a Trip Down Memory Lane: Memory Skills and Concentration

What do you think these things have in common?

Your locker combination	Friends' names	Class Schedule
Setting your alarm clock	Your lunch bag	Test dates
Favorite TV show times	Homework details	House key

These are just a few of the things that the average student has to remember in a normal school day. In fact this is probably a tiny fraction of the amount of information that the typical student must remember every day. Memory is your mind's ability to store information. Technically, memory is the process of storing and retrieving information and the brain pathways involved in this process. You use these memory pathways for nearly every activity in your daily life. Your memory lets you recognize your family and friends. It also allows you to retain skills like learning how to swim or play the guitar. Your memory is also your brain's place for storing experiences like last year's birthday party at the beach or your first day at a new school. From brushing your teeth to remembering where you put your favorite pair of shoes, your memory allows you to function normally every day.

There are two types of memory: **short-term** and **long-term**. The type of memory your brain decides to use is based upon whether or not the information is to be used immediately or stored for later use. Short-term memory is for information that will be stored only for a short amount of time. For instance, you look at the price of a sweater on a display and decide that it's too expensive. You leave the store and walk around the mall. Your brain doesn't need to store that information for a long time, so that information stays only in your short-term memory.

Long-term memory is for information that needs to be stored for a longer period of time. Short-term memory information is repeated, reviewed and then moved for storage into your long-term memory. This is the process of memorization. For example, the alphabet is something you are unlikely to ever forget. You have seen, heard and used your ABC's since you were a young child. The alphabet is now stored in your long-term memory. In order for you to remember information, it needs to be transferred from your short-term memory into your long-term memory.

### Memory Tips

There are simple ways to improve your brain's chances of making that jump from short-term to long-term memory, so that you can recall that important vocabulary word or math formula when you most need it. Here are some simple tips for training your brain to receive and store information:

- **Be Prepared**

Being prepared seems like an obvious tip, but it means more than just showing up for class on time and bringing your pencil. Being prepared to take in new information or to review previously introduced information can involve your environment and attitude. Make sure that you are rested when you come to class and your study sessions. Being tired or hungry can affect your ability to concentrate and process information. Getting enough sleep and having proper nutrition during your school week is essential for your brain to function fully.

## Lesson #13 (continued)

Being prepared also means finishing your homework, taking good notes, reviewing your notes after class and keeping up with your reading assignments. If you are falling behind in any of these areas, it can be difficult to put aside your anxiety and concentrate on retaining information. If you come to class with your reading completed, homework finished, ready to take notes, you start each class with an uncluttered mind ready to absorb and retain.

- **Be Interested**

It is a proven fact that humans learn what they find interesting more quickly than they learn what is boring. You probably remember all the lyrics of your favorite band's newest song. You may have learned them all after hearing the song only a couple of times. You learn those lyrics quickly and remember them because they are pleasing to you. You must find a way to make school material interesting as well. If you find your social studies chapter on the geography of South America boring, it's time for you to find a way to make it more appealing. Print out a map of South America from the Internet and color each country a different color. You might check out a book from the library on South American cuisine and cook a recipe that will help you become more interested in the culture of that county. Or you could start to follow a successful South American soccer team. Be creative and find a way to make even the driest material interesting to you.

- **Be Organized**

Keep your binder and assignment notebook organized and handy. If you spend part of every class or study period looking for missing, messy or misplaced notes, assignments or handouts, you are missing out on information being presented and wasting your time. Disorganization will lead to a stressful and anxious school year. Your notes and assignments should be clearly labeled, finished on time and kept in your binder. Your assignment notebook should be on your desk every class period while you are waiting for your teacher to announce homework.

- **Be Focused**

The average student's attention span, or ability to focus on a particular task, is somewhere between 20-30 minutes. This may seem like a short period, but you can actually use these short bursts of time to your advantage. First of all, use 30 minutes as your outside time to spend on one task. If you need to read four chapters in your science book, then spend 30 minutes reading and stop for a few minutes. Get up, walk around, get a snack, or call a friend, but resolve to come back to your task after about ten minutes. Your mind will be refreshed and you will be able to concentrate again.

- **Be Picky**

It is absolutely impossible to remember every word in your textbooks or every minute of every lecture in class. You need to be picky about what you choose to remember. You will need to decide what is important information to retain for tests and for understanding the material as a whole and what is just filler. Remember, your teacher is likely to give you clues during class about what information will be most valuable later on. Learn to recognize those cues from your teacher and make sure that information is included in your own reading and notes.

## Lesson #13 (continued)

### Memory Tricks

There are many clever strategies to help you remember information. Some of these strategies are processes that will help you solidify information in your memory. Others of these memory devices are tricks to help your brain retain information. These tricks are called **mnemonics**. A *mnemonic* is any learning system that will help you to remember details.

1. A common mnemonic is called an **acronym**. An acronym uses the first letter of a series of words to help you remember the entire series. For instance in elementary school, you may have used the acronym HOMES to remember the Great Lakes: **H**uron, **O**ntario, **M**ichigan, **E**rie and **S**uperior. If you are having trouble remembering a list of items, take the first letter of each of the items and make up your own acronym. It's easy, fun and creative.

2. **Chunking** is another mnemonic. If you have a large amount of information to memorize, break it down into more manageable chunks. If you use flash cards, consider breaking up your flash cards into smaller sets. Look for ways to break up material the same way you break up your study time. Try to *chunk* similar information together. If you are having a test on one of the fifty states that includes all the major geographical features, then break it up into categories. Learn all of the major state rivers. Then memorize all the major state cities. Next, learn the category of major mountain ranges or lakes or state parks. If you chunk similar information together, it makes an association between the items and helps you remember them more easily.

3. Another memorization trick is called the **Loci Method**. *Loci* means "places" in Latin. This technique uses an association of a familiar place with particular material you are trying to learn. For instance, say you have to memorize some reasons why the Industrial Revolution took place in America. You know this question is going to be one of the essay questions on an upcoming exam. You have decided your reasons will be: expansion of transportation, harnessing of energy, population growth, economic protection of manufacturers and new mechanization of manufacturing. Now, picture a place in your mind. Choose a place that you can actually use. Let's pick your bedroom. Start at the door. Assign each reason a place in your room in an order than flows naturally.

Door – Expansion of transportation  
Closet – Harnessing of Energy  
Desk – Population Growth  
Window – Economic protection of manufacturers  
Bed – New mechanization of manufacturing

Picture yourself walking through your door, past your closet, around your desk, in front of the window and to your bed. As you pass each destination, say your associated reason. In fact, you can even put a sign on each of these things in your room. Walk the room and read the signs. Then during the test when you need to recall the information, just picture yourself walking around your room and the information will be easier to remember.

4. Another common memorization trick is called **association**. Association means linking two unrelated concepts in your mind by using a creative visual picture. Perhaps in order to remember that the inventor of the cotton gin is Eli Whitney, you can picture the words, ELI WHITNEY, in big, fluffy, cotton candy letters. On your flash card or in your study notes for ELI WHITNEY, you can write his name in big, puffy letters. You have now created a mental link between cotton and Eli Whitney. Once you have created this link in your memory, you will find it irresistible and will not forget it. The more outrageous or funny, the easier you will find it to remember.

## Lesson #13 (continued)

5. The last memory trick is perhaps not a “trick” at all. Memory experts agree that good old fashioned **repetition and review** is a surefire way to make that transition from short-term to long-term memory. Repetition while you cram for three hours before the test when you haven’t studied all semester will not work. A little review and repetition every day will make all the difference. Just spend a few minutes creating a few flash cards, or reading over your notes to help repeat and review the information enough to commit it to memory. A little effort goes a long way!

# On Your Own

## Test Yourself!

Label the correct term next to each definition.

- \_\_\_1. Using the first letter of a series of words to help recall an entire list of words.
- \_\_\_2. Learning small groups of information, then putting several of those groups together.
- \_\_\_3. Using places to help remember concepts.
- \_\_\_4. Creating a visual image to help remember two unrelated concepts.
- \_\_\_5. Reviewing the same information over and over.

- A. Repetition
- B. Loci Method
- C. Chunking
- D. Acronym
- E. Association



## Lesson #22

## Adding It Up: Winning Study Strategies for Math

Sitting at her desk, her face partially hidden behind a large 8th grade math textbook, Molly frets over her homework with a worried look on her face. The whole semester has been a challenge and this year's math class just seems so confusing. Molly erases what she's written on her page and starts over on her word problem with a sigh. She grumbles, "I don't get it! I don't even understand how this will help me with my life! I'm never going to use this stuff after this semester. I just can't do math! I've never been good at it and I'm never going to get it."

Many students find that math is their most challenging subject. Some students say that they are actually afraid of math. It's not surprising that Molly's rant is one that expresses two of the most commonly accepted math myths.

**MYTH #1: I'm never going to use math in real life.**

Truth: This myth couldn't be further from the truth. Real life is filled with math. In fact, math and reading are the two skills that you will absolutely not be able to function without in the real world. Think of the ways in which you'll encounter math as a young adult. When you move out into your first apartment, you'll need to figure out what percentage of your take-home earnings you can afford to spend on rent. When you buy paint for your first home, you'll need to calculate the square footage of your walls and how many gallons of paint will cover it. You'll need to be able to balance your checking account. When you begin working and saving money, you'll need to be able to manage investment and retirement accounts, a mortgage, business profits and other financial matters. What about something as simple as calculating whether the sales price on a flat screen TV is a better price at Joe's TV Emporium at a clearance price or at Viv's TV Hut with a 30% off coupon? You will need mathematical principles every day.

Math is a new and unfamiliar way of thinking. But that is what makes math so valuable. Math can train your brain to think more logically and precisely. The study of math will allow you to develop analytic and problem-solving skills. Math and science are two subjects that not only present information but also give you an opportunity to apply what you have learned. The ability to determine a problem, apply a theory and persevere until it is solved is a hallmark of anyone in a position of power or success. Math will help you exercise and develop that skill.

**MYTH #2: I just can't learn math.**

Math is a process-based skill much the same as learning to swim, pitching a fastball, speaking German or getting to the winning screen of your video game. It takes time and practice. Like learning a language or improving your musical talent, you cannot get better at math without dedication and practice. If you stop practicing, you will lose ground quickly.

Math is also a cumulative process. Cumulative means that math skills gradually accumulate by being added to what you've already learned. Every aspect of math builds on a previously learned process. If you fail the Chapter 3 quiz for social studies class, you can most likely still pay attention, do your homework and study for Chapter 4 and pass with flying colors. This is not true of math. Math requires two things for the cumulative process to work. First, you must have a strong basic foundation. If you feel as though you still have problems with basic math skills like addition, subtraction, multiplication, division, fractions, percentages and ratios, then it is important that you get

## Lesson #22 (continued)

some help as soon as possible. Ask your math teacher for a recommendation for some review books for basic math. Putting in a little extra time to strengthen your core math skills will help you succeed in higher level math classes.

Secondly, to keep up with the cumulative process of math learning, you will have to keep reviewing and studying your new math concepts regularly. You cannot just sporadically look over your math textbook and occasionally finish all your homework. You will quickly fall behind and find that catching up will be much harder to do than in most other classes. You need to schedule nightly math review. Even when you are not assigned homework problems, you need to review your class notes. Reviewing your current notes will remind you of what information you learned today, but it's also a good idea to review notes from the past weeks. Because of the cumulative nature of math, schedule time at least once a week to do a long term review of your notes. Look at your notes all the way back to the beginning of the semester. Do a few problems from the chapters that you have already finished. It's absolutely necessary that you keep those lower foundations strong so that you can build up your increasing knowledge.

### Tips for Mastering Math

- **Don't Just Sit There**

Probably more than any other subject, math is an interactive subject. You cannot learn math by sitting in class and listening to the lecture and watching the teacher solve problems on the board. You cannot just absorb math in class. Math is learned by DOING. For every class, come prepared to take careful notes. It helps to date all your class notes so you can follow the sequence in which concepts were introduced. Pay attention during class, ask questions and follow along with all the problems that are solved by the teacher. Make sure that you write down anything that your teacher writes on the board or presents on an overhead projector. Do all your homework, solve all the problems, review your notes nightly and practice, practice, practice!

- **Keep everything**

It's important to keep track of all your homework, practice problems, class notes, quizzes and exams. If your teacher allows it, use your completed quizzes to study for tests. Use quizzes and tests to study for midterm and final exams. Keeping all your practice problems, homework, quizzes and tests allows you to see what concepts and formulas the teacher has emphasized throughout the semester. It also allows you to see the areas where you had trouble so that you can work on those weaker areas.

- **Be Neat and Thorough**

It is imperative that you are able to read your math notes and homework to understand what you have written. Your notes and homework must be neat, organized and thorough. Treat your homework like a test. Make sure that you write out your entire answer legibly and show all your work. Don't just do part of an equation and then check the back of the book for the correct answer. You will not challenge yourself to understand and find the solution this way. If you find that your answer is wrong but cannot determine your mistake, start over on a clean sheet of paper. Starting over fresh allows you to focus on the problem anew instead of focusing on the mistake.

- **Learn the language**

Just as in your science or French class, math has specialized vocabulary. Whether it's a concept or a formula, learning the language of math is imperative. Use flashcards for all the new vocabulary that you encounter. Flashcards are also great for remembering formulas and processes. Another way to

## Lesson #22 (continued)

remember a formula or process is to write it in the margin of any homework or classroom problem. That way, you can look at the problem, see it worked out and understand what process was used to get to the solution.

- **Beat the Dreaded Word Problem**

Word problems top the list of complaints of many students. Word problems can be confusing, because you must translate a written narrative into a numeric equation. There are painless strategies to help you dissect a word problem. Here is a quick four-step process for dealing with even the trickiest word problems:

- 1. Visualize it.**

You may need to draw pictures, make a chart or use physical representations for elements in the word problem. Use whatever method you need to help you visualize the problem in your head and on your paper.

- 2. What is given?**

In every word problem, certain parts of the equation are given to you. These are the known elements. As soon as you read the problem, write down exactly what you know for sure.

- 3. What is needed?**

Every word problem asks for a missing piece of the puzzle. After you have written down what is given, the next step is to figure out what piece of the equation is missing. Write down exactly what the word problem asks you to find.

- 4. What is the process?**

You need a plan. There are several ways to solve most math problems. Every word problem will use a process to solve it. Decide which process to use and follow it through. If you cannot find a solution using that process, consider another process and follow it through. Use your textbook and class notes to identify possible methods for solving your word problem.

- **Get Help Early**

If you find yourself falling behind in math, don't delay getting help. Ask your teacher for help first. Then if you still need help, your teacher can pair you with another student in class or suggest a tutor. See if your school has a math lab or some organized tutoring available to you. Because math builds from beginning concepts to new concepts, you cannot risk losing ground early in the semester.

### For the Future

Now that you are passing your math exams, you may find yourself interested in researching career opportunities for a math whiz like you. Here is a handy list of jobs for math experts:

Actuary	Engineer
Financial Manager	Certified Public Accountant
Architect	Economist
Cryptographer	Mathematician
Math Teacher	Statistician
Stock or Commodities Broker	Physicist





## Lesson #25

### Putting It to the Test: Strategies for Acing Every Test

#### Part I - Preparing for the Test

Tests are as much a part of academic life as lectures, homework and textbooks. Every academic class you will ever take will have a test of some kind. Teachers do not give tests because it is fun to see students squirm, worry and stress out. So why are tests necessary?

Tests actually help students. Most students find this very hard to believe, but it's true. Tests motivate students to keep up with assignments, continue to pay attention to lectures, take careful notes and participate in class. Think about this: if you knew that there would be no test in any of your classes, would you worry about taking notes every day? Would you rush home to finish your homework? Probably not. It is very difficult for students to stay motivated and focused. Tests help students stay alert and on course.

Tests also help teachers. Students pretty much have that part figured out. Students know that teachers use tests to help them determine what grades they will give to their students. More importantly though, teachers use tests as a guide to figure out what the students have actually learned in their classes. Homework and reading assignments cannot be objectively used by teachers to decide if their students learned the material. Testing is the most important tool teachers use to evaluate their students.

#### Getting Started

As soon as a test is announced, students may start to panic and worry. The prospect of studying a large amount of material before a test can be overwhelming. Instead of worrying, take a deep breath and start setting up your plan of attack.

##### 1. Have a Smart Semester.

Studying for your first exam begins on the first day of class. From the first day of note-taking to the first homework assignment and through every reading assignment and project after that, you are organizing your knowledge in preparation for your upcoming tests. This is why keeping an organized binder and neat, orderly class notes is so important. Reviewing your notes every night for your classes, keeping up with all reading assignments and keeping track of your homework are all absolutely necessary. Make sure that you keep all your completed homework and quizzes so that you can use them as review tools.

##### 2. Make a Schedule.

As soon as the test date is announced, you'll need to think about your study schedule. Tests are usually announced at least a couple of weeks in advance. Your study sessions should start immediately. You should plan on studying for at least two twenty minute sessions a day. You will need to increase your study sessions closer to the day of the test.

##### 3. Find Out What to Study.

You can study for hours a day and still fail a test if you haven't listened carefully to your teacher. Your teacher will announce a test and tell you what material the test will cover. Write down exactly what your teacher says about the test. In the time preceding the test, pay attention in class. Usually when teachers are gearing up to give a test, they give clues in class about what will be on the test. Teachers want their students to be prepared and study the right material. You may hear your teacher say things like,

## Lesson #25 (continued)

“Now, remember the list of vocabulary we introduced at the beginning of the semester...” or “Don’t forget the three main events we discussed last week...” These are clues! Write them down and make sure you study anything your teacher has written on the board or reviewed in class in the week or two prior to the test. Keep a “TEST” page at the end of your class notes to jot down anything that your teacher says about what might be on the test.

Don’t be afraid to ask specific questions about test material. If you are reviewing a chapter and realize that there is a large section that you never talked about in class, feel free to ask your teacher if that particular section will be included on the test. Some teachers may advise you to study everything, while others may give you specific questions that might be asked. You have nothing to lose by asking questions in or after class. Be specific when you ask questions about test material. Also, be thoughtful about your questions. Don’t ask your teacher about every possible vocabulary word that you covered all semester. You don’t want to give your teacher the impression that you are trying to get out of studying any material not included in the test.

### **4. Use the Right Tools.**

#### ***Flash cards***

Flash cards are an excellent test preparation tool. First, you need to locate the information you want to write on each card. You become familiar with your test information, because you are reading it carefully to look for flash card material. Then you need to write out the information you want on each card. You are exposed to the information a second time when you write it. As a result, you have portable, organized, small chunks of information that you can review at a moment’s notice. You can test yourself or share flash cards with a study partner and test one another.

#### ***Memory devices***

This is the time to bring out all the memory tricks you learned in Lesson 13. With a large amount of material, you will need every advantage to keep it all in your memory. Use acronyms, chunking, the LOCI method, association and that old standby, repetition, to anchor those facts and figures in your long-term memory.

#### ***Visual aids***

You can use visual aids as another way to secure information in your brain. While you might rely on flash cards for your Spanish vocabulary, you might find that timelines are more useful for your history and literature classes. Sketches and maps can help with geography, history and science. Diagrams, charts and graphs can be great aids to remember science, math and technology. Visual aids are particularly helpful for visual learners who need to see information to be able to retain it.

#### ***Summaries***

Once you have reviewed your class and reading notes, start creating summaries of the material in your own words. Once you can close your notes and write out a summary of an historical event, scientific principle or literature theme, then you know you have the material solidly in your memory.

#### ***Practice Test Questions***

Think like your teacher. When you are summarizing your notes and reading, come up with your own test questions. Keep a running list of possible questions and answers as you study. If you know that the format of your test will be mostly fill-in-the-blank and true and false questions, format your own questions similarly. If you have a study buddy or group, trade practice questions and test one another.

## Lesson #25 (continued)

### *Study Groups*

Study groups provide a great interactive way for students to prepare for tests. Pick only serious students who will do their fair share of work, set goals and a time limit without socializing during the study session. Agree to a study group only when you are sure you have a good grasp of the material. Study groups should be for review and practice only.

### **Test Anxiety**

It is common to feel some anxiety and worry about tests. With a grade riding on your performance, it's completely normal to feel nervous. The solution isn't to try to eliminate stress or anxiety, because that isn't a rational or reasonable expectation. The solution is to learn to manage and minimize your anxiety.

The best way to manage your worry is to simply put in the work. The more you prepare for the test by studying, reviewing, making flashcards, finding memory tricks and self-testing, the more confidence you will have in your ability to ace the test. The more time you spend preparing, the less time you will spend worrying.

Another sure-fire way to manage test stress is to visualize yourself succeeding. Athletes often use this technique. Using visualization trains your brain to see yourself doing well in a particular situation. Sit quietly and close your eyes or practice visualization before you fall asleep at night. Picture yourself walking confidently into your classroom and sitting in your seat. Hear the noises of the classroom and students shuffling down the hall. Hear your teacher's voice explaining the test and try to imagine what the test feels like in your hands. Then picture the test process proceeding positively. You answer the questions quickly and without hesitation. Feel your confidence soar as you turn in your test with a smile. Picture yourself in the classroom a few days later. Your test is graded and is being handed back to you. You turn it over and see a big red "A" right at the top of the page. You did it! Practice visualizing your success any time you start to feel anxious.

One final method for managing test anxiety is to engage in positive self-talk. Many students already engage in self-talk, but it tends to be all negative. Have you ever found yourself thinking something like this?

*I hate Mr. Barrett's Science tests. He makes them so hard. I never pass those tests. If I study until I'm blue in the face, I'll probably only get a D.*

All day, every day, we engage in self-talk. Your brain feeds itself messages about all sorts of situations. Why not feed your brain positive and helpful messages? At first it may feel silly to talk to yourself, but you'll get used to it. Tell yourself (you can tell yourself out loud or in your head), "I am prepared and ready for this test. I know the answers and I am going to pass this test easily." Pretty soon, your brain may accept this information as true and your anxiety will lessen.

### **Preparing for the Day of the Test**

It's the night before the big test. You are thinking about your big day tomorrow. What should you plan to do to ensure that you are in the best possible position to succeed?

**1. Get a good night's sleep.** If you are tired on the day of the test because you stayed up late cramming, you will have difficulty concentrating and recalling information. A lack of sleep can have a measurable impact on your test scores. Go to bed early the night before a test!

**2. Eat breakfast (or lunch).** Never skip a meal before a test. Your body and brain need fuel to function properly. Stay away from heavy or greasy foods, caffeine and sugar prior to a test.

## Lesson #25 (continued)

**3. Come prepared.** Bring pencils, pens, an eraser, a calculator and anything else you may need. Never show up without your textbook or study notes. Sometimes, if a teacher feels that the class needs some extra help, he or she may allow an open-book or open-note test at the last minute. Don't be caught without the right supplies. Pack your book bag the night before and have it waiting for you by the door on your way out in the morning.

**4. Review only (don't try to learn new things).** The morning of your exam is for review purposes only. Use your flashcards, summaries, timelines, and practice questions to review the information you've been studying. Do not try to read new material or introduce any new information. You want your study material to be front and center in your memory.

**5. Relax.** Focus on some relaxation techniques before your test. If you find yourself nervous and fidgety before your test and have a few extra minutes, walk briskly up and down the hallway. Besides being a good outlet for your nervous energy, the chemicals released during activity can give you a little short term boost in mental sharpness. Just before you sit down to your test, take some deep, calming breaths. While you are breathing slowly, visualize yourself doing well on the exam: filling in the correct answers, writing the essay questions confidently and feeling proud of your knowledge and study habits.

