

## AN INTRODUCTION TO STUDY AIDS AND SELF TESTING

This handout is intended to help you utilize study aids and prepare for and take exams in a more informed fashion. Please read ahead to see how you might be able to improve your testing success! The following tips are for quick help in these areas:

*How should I use study aids created by others or myself? (flash cards, summaries, cheat sheets, highlights, diagrams, group reviews, etc.).*

- Use SQ3R method for reading.
- Summarize information in your own words in abbreviated form on study sheets.
- Join or form study groups. Attend Supplemental Instruction sessions if available.

*How can I review and learn information and monitor my comprehension of the material?*

- Review and test your level of understanding and knowledge of the material by going over class notes, thinking up potential questions, and attempting to recall information.
- Review your lecture notes as soon as possible after a class.
- Review class material briefly and often rather than try to cram before test.

## **STUDY SMARTER NOT HARDER**

### **Choosing a Place of Study**

1. Find one special place of study.
2. A quiet room helps concentration.
3. Keep pictures of favorite people away from your desk.
4. Be prepared; have everything you need within arm's reach.
5. Use sufficient lighting.
6. Avoid considerable muscle relaxation; don't lie on the bed.

### **Deciding When to Study**

1. Materials reviewed just before sleep are remembered better.
2. Review immediately after class; it helps you remember.
3. Take a short break when your attention persistently wanders.
4. Space your study periods evenly.
5. Studying, instead of just reviewing, the night before an exam has grave disadvantages.

### **Getting Down to Business**

1. Before you sit down, decide whether or not you are going to study.
2. Decide what you are going to study and for how long before you start.
3. After you decide what to study, energetically throw yourself into the project.
4. When you finish studying one subject, decide when you will study it again.

## **USING NOTE CARDS AS A STUDY AID**

Note cards are used to help students study and remember significant facts, main ideas, and definitions.

1. In making note cards, it is probably best to use 3" by 5" index cards that are blank on one side and lined on the other.
2. At the top of the blank side (front) of the card, put the word, phrase, or whatever it is you want to learn.
3. On the lined side (back) write the definition or whatever it is you want to associate with what is on the front.
4. Note cards can be used for definitions, lists, fact questions, and essay questions.

**Front Side****Flip Side**

Scalawags	<i>Definition Note Card</i>	Dishonest Southern politicians who were out to enrich themselves by swearing that they had not borne arms against the U.S.
List the 3 branches of government	<i>Listing Note Card</i>	Executive Legislative Judicial
Why did the U.S. not join The League of Nations?	<i>Fact Question Note Card</i>	Many Americans opposed the idea of getting involved with the affairs of foreign countries. They felt that such a course could lead to war.
Explain the role of the U.S. President	<i>Essay Question Note Card</i>	1. Commander & Chief of Armed Forces 2. Makes Treaties 3. Chooses foreign representatives 4. Appoints Supreme Court Judges 5. Sees that laws are carried out 6. Vetoes acts of legislation

There are several reasons for using note cards:

1. Refreshes your knowledge of materials.
2. Predicts possible test questions.
3. Cards are easily in a pocket or purse for studying between classes and during breaks.
4. Classmates can quiz each other.
5. You can quiz yourself, keeping two piles of cards: one for the questions you got correct, the other for the questions you need to re-study.

## **SQ3R: READING METHOD**

### **STEP #1 “S” for SURVEY**

- First, SURVEY the reading assignment quickly, taking no more than five minutes to glance over a whole chapter.
- Check the headings and sub-headings; they represent the author’s outline and make it easy for you to follow his organization of ideas.
- Inspect all graphs, maps, tables, diagrams and pictures; they are included because they clearly summarize, in a more visible and tangible way, many facts and relationships that would otherwise require hundreds of words.
- Read the introductory and summary paragraphs; they point out the important points to look for as you read and how these concepts are related to each other.
- Making such a preview will orient you to what the chapter is all about before you study it in detail.

### **STEP #2 “Q” for QUESTION**

- Second, arouse your curiosity about the material by asking yourself the following QUESTION: “What are the main points that the author is trying to tell me?”
- Then, as you read, convert headings and subheadings into who, what, where, when, why and how questions, and read to find the answers to these questions.
- Challenging yourself to find answers to such questions will help you to maintain interest in what you are reading and will aid you in evaluating the significance of what you are reading.

### **STEP #3 “R” for READ**

- Third, READ the assignment carefully for meaning.
- When you read, do not read passively as you would an adventure story. Novels are for entertainment and are written without any concern for whether or not you remember details.
- Read actively! Underline key words and phrases to aid you in recalling the main points of the chapter.
- Use an asterisk, exclamation point or question mark to indicate an important definition, a key formula, or a potential test question.
- Summarize key ideas in your own words in the margin of the page.
- Remember, such active participation in the reading process will increase your understanding of the material being read.

### **STEP #4 “R” for RECITE**

- Fourth, stop at appropriate intervals and RECITE to yourself from memory the main points of the assignment, recalling only the essential details to understand what the author is trying to say.
- Without looking at the book, check whether you have learned the major concepts by trying to restate them in your own words.
- If you cannot do this immediately after reading the material, you cannot hope to do it tomorrow in class or next week on an exam.

- Such self-recitation provides a way to test yourself quickly and easily to reveal what you have learned.
- If you can't repeat most of the main points, then you haven't learned the material and you will simply have to reread it again if you are to master what you are studying.

STEP #5 "R" for REVIEW

- Finally, REVIEW the chapter at periodic intervals to refresh your memory and make the facts stick.
- Don't wait until you are confronted with an examination to do your reviewing. That's a good time for the final review, but not the first review.
- Reviewing is simply the process of going over the material again in order to fix it in your memory.
- Reread your marginal notes and underlining and say over again the sequence of main ideas and supporting facts until you have them once more firmly in mind.
- Research has clearly demonstrated that the best time to review material is shortly after you have learned it.
- It is most important, therefore, that you not omit this review immediately after learning. You will, of course, want to review the material again just before the test.

## AN EXERCISE ON READING

The way you study a lesson depends partly on how the author wrote the material you have to study. The relationships used are your guide. In your social studies and science textbooks, particularly, you can learn faster and more surely by first identifying the author's pattern.

### **EXERCISE**

Part 1: Selections A, B, and C below are passages from typical textbooks. Read quickly through selection A to get an idea of the content. Then read it again, this time more carefully, in order to identify the pattern. Finally, choose from the following numbered statements the description of the way to study which you think would be most helpful with selection A. Write its number on the blank beside letter A. Follow the same procedure with selections B and C.

### **METHODS OF STUDYING**

1. This passage is made up of *several simple lists* which I must learn. It does not matter in what order I learn the lists as long as I am sure not to leave out any items.
2. This passage has a *cause-effect pattern* with one effect and several causes. It is not important to remember the order in which the author has stated them.
3. This section has a *mixed pattern*: comparison-contrast and listing. I should first be sure of the terms that are contrasted. Then I should learn two or three examples from each list in order to illustrate each of the terms.
4. This passage is *comparison-contrast*. The likenesses and differences are not listed separately. It will be easier to remember them if I sort them out first into two lists.
5. The author of this section has told of events *in the order* in which they happened. It will be easiest to remember the facts if I learn them in time order.

A \_\_\_\_\_

Some materials are elements and some are compounds. An element is made only of itself. Iron, gold, aluminum, mercury, and sulfur are examples of elements. Because an element is made only of itself, elements are the building blocks of other materials. All of the 500,000 different materials in the world are made from about 100 elements. If you could take everything from roller skates and candy to elephants and trees and put the different elements in separate piles, you would have about 100 different piles.

We can make things from elements alone, or we can put elements together to make compounds. A compound is a material that is made of two or more elements. Water, carbon dioxide, and salt are compounds that are made of two elements. Sugar is a compound made of three elements. Even our bodies are made of elements and compounds. The body of a man weighing 160 pounds contains about fifty quarts of water (a compound of the elements hydrogen and oxygen), enough of the element iron to make a large nail, a teaspoonful of sugar (a compound of elements carbon, hydrogen, and oxygen), enough fat (a compound of the elements carbon, hydrogen, and oxygen) to make several bars of soap, several cups of the element

calcium, enough of the elements sulphur and phosphorus to make a large box of matches, and enough of the element potassium to make the powder for a small shotgun shell.

## **B\_\_\_\_\_**

To understand how communism gained control of the Russian government, the czarist past must be examined. The political ideas and economic changes that transformed European society in the 18<sup>th</sup> and 19<sup>th</sup> centuries had little effect upon Russia. To other Europeans of the time, the vast domain of the czars seemed remote, mysterious and backward. A despotic system of government chocked off the deep longing of the Russian people for a better life. An economy largely confined to agriculture remained stagnant.

The majority of the population were peasants; ignorant, impoverished, and debased. Most of them were bound to the soil as were the serfs in Western Europe during the Middle Ages. Occasionally, they were moved to violent but futile outbreaks against the nobility, their landlords. The nobles objected strenuously to reforms that might weaken their power and privileges, while the czars were usually as conservative as the nobles and failed to provide energetic leadership. Political and economic reforms were granted so slowly and reluctantly that the great upheaval of 1917 came as a long-delayed answer to the accumulated grievances of the past.

## **C\_\_\_\_\_**

In October 1944, the United States prepared to launch a full-scale attack to recapture the Philippine Islands and landed the Sixth Army on Leyte. This attack, if successful, could give the Allies the foothold needed to retake the islands. The Japanese, therefore, were determined to hold Leyte. For a month a fierce battle raged, but on December 25, 1944, General Douglas MacArthur, Allied commander in the Pacific, declared that the island had been secured by U.S. forces. With Leyte as a base for air and sea operations, most of the Philippines were taken by May, 1945.

As the war progressed in the South Pacific, U.S. planes bombed the Japanese home islands, and American submarines inflicted immense damage on Japanese shipping. By 1945 Tokyo was in ruins. Still the Japanese refused to respond to American warnings of total destruction. A planned invasion of Japan by land was made unnecessary by the dropping of the atomic bomb. On August 6, 1945, the destructive force of 20 thousand tons of dynamite struck Hiroshima, destroying three square miles of the city and killing more than 160 thousand persons.

On August 9, the Soviet Union declared war on Japan, and Russian troops invaded Korea and Manchuria. On the same day a second atomic bomb was dropped on Nagasaki after the Japanese refused to surrender. President Harry S. Truman warned that more bombs would

follow unless an immediate surrender was secured. With no choice remaining, Japan agreed to United States demands. On September 2, 1945, the Japanese signed the surrender document, ending a war that had lasted six years and one day.

Part II: It is usually helpful, when you are studying, to think what kinds of questions your teacher is likely to ask. Teachers often ask questions which require you to understand the pattern of relationships used in your textbook assignment. With this in mind, choose for each selection the question that will best show the relationship in that selection. Circle the number of this question. You will probably need to reread the selection before you make your choice.

Selection A:

1. Make a list of all the compounds you can remember.
2. How many elements are there in the world?
3. Explain the difference between elements and compounds and give two examples of each.

Selection B:

1. When did the Russian Revolution take place? Explain why the Russian people revolted against their government.
2. Compare life in Russia with life in the rest of Europe.

Selection C:

1. List the events of the last days of World War II in time order:
  - Nagasaki was bombed
  - Russia went to war with Japan
  - President Truman threatened to use more atomic bombs if Japan did not surrender
  - United States forces took the island of Leyte
  - An atomic bomb was dropped on Hiroshima
  - Japan agreed to surrender
  - Tokyo was bombed
2. Why was the terribly destructive atomic bomb used against Japan?
3. How was the thinking of the Japanese militarists different from that of the American leaders in the last days of the war?

## SELF TESTING

### **General Hints for Test Preparation**

1. Build a schedule you can live with that includes all your daily activities. Be sure to incorporate an average of 2 hours of study time for each hour of class. (Remember, your hardest course may require even more time than that).
2. Consider patterns in your energy level: if you are most alert and energetic from 6 to 8 a.m., then plan to study difficult subjects at that time.
3. Allow relatively large blocks of time for learning concepts and the relationships among them.
4. Use short periods of time (even brief odd moments, like when you have ten minutes to kill before the start of class) for reviewing notes or for drilling yourself on facts, definitions, etc.
5. Allow yourself to take short breaks (about 10 minutes is all you need to get refreshed).
6. Try to vary the subject matter during long study sessions. For example, instead of completing work for two literature classes in a row, try to finish the work for one of them and then work on algebra or computer science (something less verbal in nature).
7. Permit common sense to guide your studying. If certain topics have been discussed in class that also are in your text, pay attention to them. Review quizzes that have been given, and get clarification on items from previous tests or quizzes that you missed. Spend a little more time on material that is unfamiliar; quick reviews may be all you need for more familiar content.
8. Anticipate test questions when reviewing the course syllabus (e.g., what was the objective for this part of the course?) Take a step back and think about everything that's been covered in this unit--what are the main points, how do key ideas/events relate to each other, and so on?
9. Ask the instructor to identify what will be included on the test. Then be sure you have studied all the items/topics he or she mentions, including reserved readings, class notes, textbook readings, and the like.
10. Two or three nights before the test, hold a study session with classmates. DO NOT try this the morning of the test; it probably will only serve to rattle you. On the other hand, when you do this with a few days lead time, it can help make you aware of areas that need further study--and you'll have time to take care of it!

## PREPARING FOR A TEST

*PURPOSE:* The purpose of this exercise is to help the student learn how to systematically organize his/her efforts to prepare for a major examination.

**STEP #1:** Select a major test announced for one of your courses and indicate what you know about the test by answering the following questions:

1. What is the number and title of the course? \_\_\_\_\_
2. When and where is the test scheduled to be given?  
Day \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Place \_\_\_\_\_
3. What kind of test will it be?  
Essay \_\_\_ Multiple-choice \_\_\_ True/False \_\_\_ Short Answer \_\_\_ Problem \_\_\_ Other \_\_\_
4. How much time will be allowed for the test?  
3hrs \_\_\_\_\_ 2hrs \_\_\_\_\_ 1 ½ hrs \_\_\_\_\_ 1hr \_\_\_\_\_ ½ hr \_\_\_\_\_
5. What percent of your total course grade will this test account for? \_\_\_\_\_%
6. What textbook materials will be covered on the test?  
Textbook Chapters \_\_\_\_\_ Textbook Pages \_\_\_\_\_
7. What lecture topics or materials will be included?  
\_\_\_\_\_  
\_\_\_\_\_
8. What outside reading assignments will be included?  
\_\_\_\_\_  
\_\_\_\_\_
9. What else (workbook exercises, demonstrations, motion pictures, etc.) will be included?  
\_\_\_\_\_  
\_\_\_\_\_

**STEP #2:** Carefully review your answers to questions 6-9 and determine where you are now and what you still need to do to get ready for the test. List all of the things that still need to be done in the appropriate spaces below.

1. Textbook chapters that still need to be read: \_\_\_\_\_
2. Lecture notes that are missing, incomplete, or need redoing: \_\_\_\_\_
3. Outside reading assignments that still need to be read: \_\_\_\_\_

4. Other materials and/or activities that need to be completed: \_\_\_\_\_

**STEP#3:** Organize the activities that need to be done in logical order or sequence and set yourself a deadline for completing each one. Remember to be realistic and set deadlines that you can and will meet.

Activity	Deadline
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____

**STEP #4:** Once you are caught up on your assignments, you should plan for a systematic review of pertinent textbook chapters, lecture notes, and other materials prior to the exam. If possible, the reviewing should be spread over three or four days in one and/or two hour periods rather than scheduled as one long period of last minute cramming just before the test. Look over your other commitments and select an appropriate number of one-hour and/or two-hour time periods that you can utilize for reviewing for your exam. List these review periods below and record the review activity to be accomplished during each period. Build in rewards for sticking to your schedule.

Review Period (Day/Date/Time	Review Activity	Reward
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

## MEMORY

“Just as eating against one’s will is injurious to health, so study without a liking for it spoils the memory, and it retains nothing it takes in.” (Leonardo Da Vinci)

**Terms:** Remembering: Process of recalling something that you have already experienced.  
Forgetting: Failure to recall.  
Memory: Capacity to store, retain, and retrieve information.

The key to using your memory more effectively is to realize that your brain never loses anything. Once a thought or perception has been input to your memory, it stays there for the rest of your life! What we call “forgetting” is either the inability to recall stored information or the failure to store information in the first place.

### **Four general principles for improving memory:**

1. Organize it. Organized information is easier to find.
2. Use your body. Learning is an active process; get all your senses involved.
3. Use your brain. Work with your memory, not against it.
4. Recall it. This is easier when you use the other principles to store information.

**Organize it:** Learn from the general to the specific. Make it meaningful. Create associations.

**Use your body:** Learn it once, actively. Relax. Create pictures. Recite and repeat. Write it down.

**Use your brain:** Reduce interference. Overlearn. Escape the short-term memory trap. Distribute learning. Be aware of attitudes. Choose what not to store in memory. Combine techniques.

**Recall it:** Remember something else, in association. Notice when you do remember. Use it before you lose it. And, remember, you never forget!

## LONG vs. SHORT TERM TEST PREP

### **Long Term:**

1. Keep up with the reading.
2. Review class and text notes regularly.
3. Make sure you understand the course material (different from knowing the material).
4. Keep a healthy schedule including proper diet, exercise, and sufficient sleep.
5. Try to resolve or have under control any causes of undue personal conflict, stress, or tension in your life.

### **Proximate or Short Term:**

1. Organize the class information into exam notes—outline or mind map form (prepare a “crib” sheet).

2. Short and frequent review of exam notes.
3. Do not cram.
4. Review past exams and quizzes.
5. If possible, study in groups or with one other person.
6. Develop a positive attitude toward the course.