

## Materials:

Study Skills on pages 33-34 in this workbook (pages 5-6 in the student workbook)

Test-Taking Strategies on page 35 in this workbook (page 7 in the student workbook)

Sample Test on page 36 in this workbook (page 8 in the student workbook)

## Goal:

Students will learn tips on test-taking, organizing and managing their time and a few memory tricks to help them be successful in memorizing information.

## Time:

60 minutes. (30 minutes for the mnemonic devices and 30 minutes for the test-taking skills.)

## Instructions:

### Worksheet: Study Skills

1. Tell students that “Today we are going to cover several memory devices and tricks to help you perform better on tests. If you’re going to get to college, you’re going to have to take a lot of tests and do well. You’ll need some tricks that good students use. To use these tricks successfully, you have to practice them.”
2. Tell students that doing well in school is not a matter of being smart, but a matter of working hard and using good study skills. Ask, “Do you have to be smart to go to college?” Answer, “No, you just have to work hard.” If something is hard for you work a little harder. The better the study skills are, the more successful the student. Students with good study skills do better on tests, make studying easier, build confidence, and improve their grades.
3. Memory tricks: This section will provide memory tricks to help memorize information as well as tips on test-taking, organizing, and managing time. You may want to review some of these periodically throughout the year. Tell students that our brains are like computers. Both have the ability to save information that can be used at a later time. Just like a computer, we refer to the information that we store as memory. In school, students are required to memorize information regularly for tests. Whether the test is multiple choice, short answer, or essay, students rely on their memories in order to do well on tests.

### Three Steps to Memory Success

1. Students should repeat the information out loud in their own words. This will allow them to hear the information, rather than just seeing it in print.
2. Students should repeat the information in their heads several times until they can remember it.
3. After they have repeated the information in their heads several times, then they should write the information on a piece of paper. Repeat steps 1-3 as many times as necessary until they can write it down without looking.

# Section 3: Study Skills Lesson Plan

## Mnemonics

*Mnemonic Devices* (pronounced neh-MAHN-icks) work by helping students connect the information they are trying to learn with something simpler or with information that is familiar to them or using an invented sentence in which the first letter of each word is a cue to an idea they will need to remember. For example, to remember how to spell the word mnemonic, students could learn the following sentence:

**M**y **n**ice **e**agle **m**oved **o**ver **n**ear **i**ts **c**up.

*Acronyms* are another mnemonic device. An acronym is an invented combination of letters to help students remember a word or idea. Acronyms are a great way to remember items like the “Order of Operations” (the necessary steps involved to solve a mathematical problem) or the order of the first six Presidents of the United States (Washington, Adams, Jefferson, Madison, Adams, Johnson, or WAJMAJ).

For example, the letters below, which spell “**TEAM**,” can help students remember the concept of team.

- T** Together
- E** Everyone
- A** Achieves
- M** More

Another way to remember is for students to make a mental picture of what they want to learn. Tell the students, “you have probably heard the saying, ‘A picture is worth a thousand words.’ Research shows that pictures are easier to remember than words alone. This is probably why people usually remember a person’s face but may forget his or her name.”

For example, let’s say students are trying to memorize the definition of the Spanish word *cabina telefonica*, which means phone booth. Have them picture a cab trying to fit into a phone booth. Therefore, on the test when they see the word *cabina telefonica*, they would remember the meaning “phone booth” because of the mental image of a cab trying to squeeze into the phone booth.

A useful algebraic mnemonic device: **Please Excuse My Dear Aunt Sally**. How does this mnemonic device help students solve this problem in algebra  $(12 \div 4) + 3^2 \times 4 = X$ ? To solve this problem students have to remember the following order of operations for algebra.

1. Just like in writing, students work from left to right.
2. Calculations in Parentheses (point to parentheses) are done first. When students have more than one set of brackets or parentheses, they calculate the inner brackets first.
3. Exponents (point to exponents or radicals) must be done next. (Show students what exponents are by writing several on the board.)
4. Multiply and Divide in the order the operations occur.
5. Add and Subtract in the order the operations occur.

# Section 3: Study Skills Lesson Plan

Tell students that the way they will remember the order for all of these steps is by remembering the following mnemonic:

**P**arentheses

**E**xponents

**M**ultiply

**D**ivide

**A**dd

**S**ubtract

Now have them apply a mnemonic device to help them remember the Order of Operations:

**Example:**

**P**lease **P**arentheses

**E**xcuse **E**xponents

**M**y **M**ultiply

**D**ear **D**ivide

**A**unt **A**dd

**S**ally **S**ubtract

You may also use another acronym if it helps you better...

**P**ink **E**lephants **M**ay **D**estroy **A** **S**nailed

Now have students try using their acronym for the Order of Operations on a math problem!

Applying an algebraic equation to a math problem

$(12 \div 4) + 3^2 \times 4 = X$	Rule 2: Parentheses
$3 + 3^2 \times 4 = X$	Rule 3: Exponent
$3 + 9 \times 4 = X$	Rule 4: Multiply or Divide as they appear
$3 + 36 = X$	Rule 5: Add or Subtract as they appear
$39 = X$	Answer

## Group Activity

Now divide the students into small groups. As a group, have the students decide which memory trick – mnemonic device, acronyms, or a mental picture – they would use to memorize the following. Inform them that they will be presenting the memory trick that the group decides to use for each exercise to the whole class.

### Exercise #1: College Admission Requirements

A-G Requirements:

Have them find a memory trick that they can use to remember the types of classes that they need to take while in high school to be eligible for college admissions.

**Social Studies, English, Math, Lab Science, Language other than English, Visual and Performing Arts, College Electives**

*Possible Answer: Sally eats macaroni liver lunch very cold*

### Exercise #2: Science

Order of the Planets in Outer Space:

Have them find a memory trick to help them remember the order of the planets from nearest to farthest from the sun.

**Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto**

*Possible Answer: My very earthy mother just served us nine pizzas*

### Exercise #3: United States Geography

Have them find a memory trick to help them remember the most populous cities in Indiana. The cities are listed in your workbook in order from highest to lowest with regards to their population size.

**Indianapolis, Fort Wayne, Evansville, South Bend, Gary**

*Possible Answer: Insects from everywhere seem gross*

To conclude this section, share with the class that they can use these memory tricks in all of their classes and to remember information for tests.

# Study Skills Student Activity

There are many things that you can do in order to improve your study skills. The better your study skills are, the more successful you will be as a student. You will do better on tests, studying will become easier for you and you will feel more confident.

This section will give you tips on how to prepare for tests, how to organize and manage your time and a few memory tricks to help you be successful in memorizing information.

## Memory

Our brains are like computers. Both have the ability to save information that can be used at a later time. Just like a computer, we refer to the information that we store as memory. In school, you are required to memorize information regularly for tests. Whether the test is multiple choice, short answer, or essay, you will rely on your memory in order to do well on the test.

## Three Steps to Memory Success

1. *Repeat* the information *out loud* in your own words. This will allow you to hear the information, rather than just seeing it in print.
2. *Repeat* the information *in your head* several times until you can remember it.
3. After you have repeated the information in your head several times, then *write* the information *on a piece of paper*. Do this as many times as necessary. After several times you should be able to write it down without looking.

## Other Memory Tricks

Other tricks can be used to memorize things. Below are three tricks.

1. *Mnemonic Devices* (pronounced neh-MAHN-ick) work by helping you connect the information you are trying to learn with something simpler or with information that is familiar to you or an invented sentence in which the first letter of each word is a cue to an idea you need to remember. For example, to remember how to spell the word mnemonic, you could learn the following sentence:

**M**y nice **e**agle **m**oved **o**ver **n**ear **i**ts **c**up.

2. *Acronyms* are another trick used. An acronym is an invented combination of letters to help you remember a word or idea. Acronyms are a great way to remember items like the "Order of Operations" (the necessary steps involved to solve a mathematical problem) or remembering the order of the Presidents of the United States, or planets in the universe.

For example, the letters below, which spell "**TEAM**," can help you remember the concept of team.

**T** Together

**E** Everyone

**A** Achieves

**M** More

3. Another way to remember is to make a *mental picture* of what you want to learn. You have probably heard the saying, "A picture is worth a thousand words." Research shows that pictures are easier to remember than words alone. This is probably why you usually remember a person's face but may forget his or her name.

For example, you are trying to memorize the definition of the Spanish word *cabina telefonica* which means phone booth. You can picture a cab trying to fit into a phone booth. Therefore, on the test when you see the word *cabina telefonica* you would remember the meaning "phone booth" because of the mental image of a cab trying to squeeze into the phone booth.



# Study Skills Continued...

## Group Exercise

Once your teacher has grouped everyone into small groups, as a group decide what memory trick – *mnemonic device*, *acronyms*, or a *mental picture* – you will use to memorize the A-G college admission requirements, the order of the planets in outer space and the most populous cities in Indiana. Be prepared to present the memory trick that you decided as a group to use for each concept to the whole class.

## Exercise #1: College Admission Requirements

### A-G Requirements:

Find a memory trick that you can use to remember the types of classes that you need to take while in high school to be eligible for college admissions.

**Social Studies, English, Math, Lab Science, Language other than English, Visual and Performing Arts, College Electives**

## Exercise #2: Science

### Order of the Planets in Outer Space:

Listed below are the names of the planets in order from nearest to farthest from the sun. Find a memory trick to help you remember the order of the planets.

**Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto**

## Exercise #3: United States Geography

Find a memory trick to help you remember the most populous cities in Indiana. The cities are listed below in order from highest to lowest with regards to their population size.

**Indianapolis, Fort Wayne, Evansville, South Bend, Gary**

*(Note- there is an additional more extended supplement on improving test-taking skills on page 78 of your manual. This lesson is one short section on strategies to use during a test.) Refer students to the test-taking strategies on page 7 in their workbooks, and then have them take the sample test.*

## Here are five tips to improve your test-taking:

1. Take a deep breath and relax before starting.
2. Read all of the directions before you take the test.
3. During the test, answer all of the easy questions first and then go back to the hard ones.
4. If you don't know the answer, eliminate the choices you know are incorrect and choose from among the remaining answers.
5. If you have time left over, go back and check your answers and correct them when possible.

Apply those strategies while you are taking the test that you are going to be taking shortly.

After the test, discuss why they should read all of the questions before answering.

Turn to the test in your workbook. Have everyone together take a collective deep breath and remind them to relax.

When students finish, review the test-taking tips. Discuss which ones they applied and how the tip was useful and which ones they forgot to apply. Remind them that these tips will help them get better scores on their tests.

## Final activity: K-W-L

Put up the paper on K-W-L that you created on the first day. Review what students knew and wanted to know. See if you have covered their questions. Now have students tell you what they have learned about college and careers. List those on the board.



**Directions:** Read all the questions carefully first before starting the test and choose the best answer. Underline the answer if you're using a pen and circle the answer if you're using a pencil. If you have a question quietly raise your hand and wait for the teacher to come to your desk.

**1. How many years of English do you need to take in high school to meet the A-G requirements?**

- a) one   b) two   c) three   d) four

**2. How many University of California campuses are there in the state?**

- a) 10   b) 6   c) 23   d) 12

**3. How many years of mathematics are recommended in high school to make you most competitive for college?**

- a) one   b) four   c) three   d) two

**4. American history will meet which of the requirements for college?**

- a) A   b) D   c) F   d) G

**5. Read the following and answer the questions:**

It is important that your counselor know that you want to go to college. You need to tell your counselor you want to be taking A-G courses so that you will qualify for college. A-G requirements may differ from one high school to another. The high school has to send the courses in to the University of California to have them approved. Oceanography might be an approved A-G course at one high school and not at another. Before you sign up for a course, it is important to find out if it is on your high school's A-G approved list. An English course, for example that is an English as a Second Language class does not meet the requirement for A-G. Ask your counselor for a copy of the list and use the number on the course to check to see if the course is on an approved A-G course.

1. The best title for this paragraph would be:

- a) Why go to college?  
b) Getting into A-G classes  
c) Why take A-G classes?  
d) English is A-G

2. Who approves courses to be on the A-G list?

- a) high school counselors  
b) the University of California  
c) the high school principal  
d) you

**6. Do not answer questions one and two.**

# Sample Test