

# 9 Types of Mnemonics for Better Memory

**Mnemonics** are memory devices that help learners recall larger pieces of information, especially in the form of lists like characteristics, steps, stages, parts, etc. We knew back in 1967 from a study by Gerald R. Miller that mnemonics increased recall. He found that students who regularly used mnemonic devices **increased test scores up to 77%!**

Many types of mnemonics exist and which type works best is limited only by the imagination of each individual learner. The 9 basic types of mnemonics presented in this handout include **Music, Name, Expression/Word, Model, Ode/Rhyme, Note Organization, Image, Connection, and Spelling Mnemonics.**

## 1. Music Mnemonics

How many lyrics to songs do you remember? How did you come to remember them? Music is a powerful memory technique and it can work just as well in school, also. Many learners have made songs out of information when a list of items must be learned. Advertising on radio and TV uses this technique to help potential customers remember their products when shopping.

You can make a song or jingle using any type of music you choose for any list of items. **Music Mnemonics** work best with long lists. For example, some children learn the ABC's by singing the "ABC" song. Other children learn all the states in alphabetical order using the "50 Nifty United States" song.

## 2. Name Mnemonics

In a **Name Mnemonic**, the 1st letter of each word in a list of items is used to make a name of a person or thing. An example is:

1. ROY G. BIV = colors of the spectrum (Red, Orange, Yellow, Green, Blue, Indigo, Violet.)

## 3. Expression or Word Mnemonics

This is by far the most popularly used mnemonic. To make an **Expression or Word** mnemonic, the first letter of each item in a list is arranged to form a phrase or word. Examples include:

1. For physical laws dealing with gasses, try these:

**Charles' Law:** For a constant volume, pressure is directly proportional to temperature.  
**The simple way to remember Chuck is if the tank's too hot, you are out of luck.**

**Henry's Law:** The solubility of a gas increases with pressure.  
**The way to remember good old Hank is think of bubbles in the Coke you drank.**

**Boyles' Law:** At constant temperature, pressure is inversely proportional to volume.  
**Boyle's law is best of all because it presses gasses awfully small.**

2. In English, the 7 coordinating conjunctions are For, And, Nor, But, Or, Yet, So = **FANBOYS**.
3. The order of operations for math is Parentheses, Exponents, Multiply, Divide, Add, and Subtract = **PLEASE EXCUSE MY DEAR AUNT SALLY**.
4. The categories in the classification of life are Kingdom, Phylum, Class, Order, Family, Genus, Species, Variety = **KINGS PLAY CARDS ON FAIRLY GOOD SOFT VELVET**.
5. For those who have to remember the order of color coding on electronic resistors: **BLACK, BLUE, RED, ORANGE, YELLOW, GREEN, BROWN, VIOLET, GRAY, WHITE, SILVER, GOLD**.  
Bad Boys Rile Our Young Girls, But Violet Gives Welts (to) Silly Guys  
or  
Bad Beer Rots Our Young Guts But Vodka Goes Well (in) Silver Goblets.
6. Almost every anatomy class has to remember the eight small bones in the wrist: **NAVICULAR, LUNATE, TRIQUETRUM, PISIFORM, MULTONGULAR (GREATER), MULTONGULAR (LESSER), CAPITATE (and) HAMATE**.

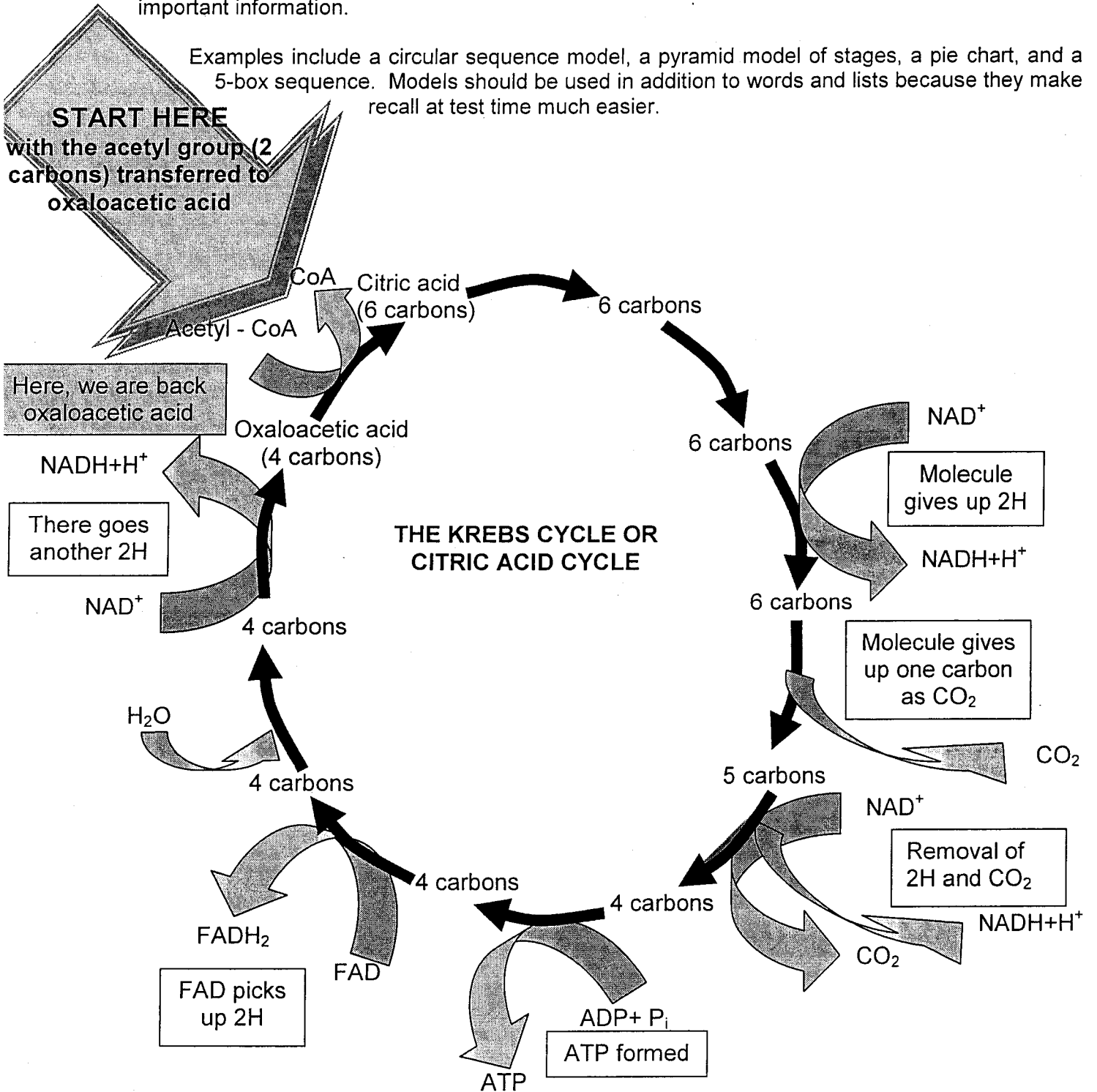
Never Lower Tilly's Pants, Mother Might Come Home.

Create an **Expression Mnemonic** for remembering the order of the planets from the sun outward: **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto**.

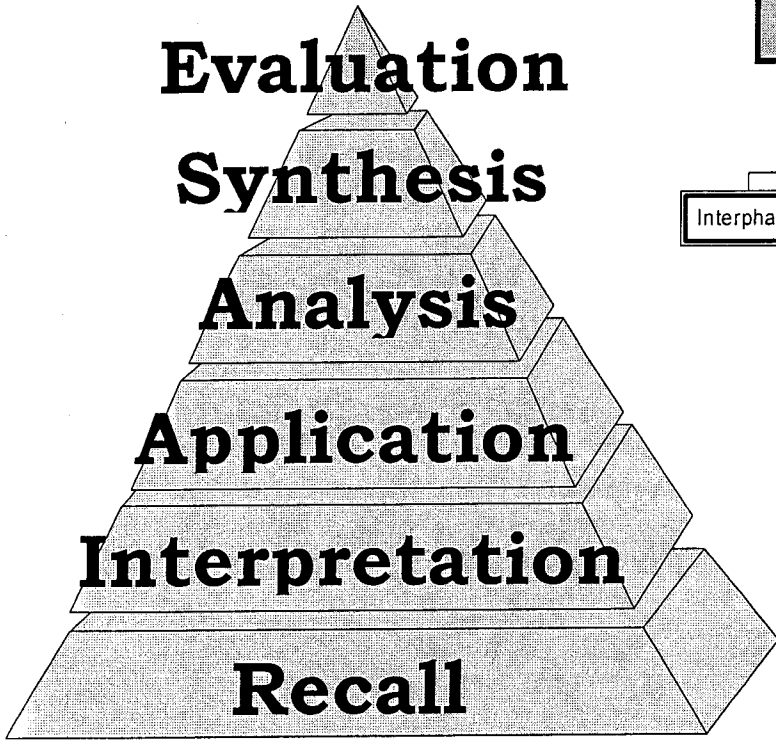
# 4. Model Mnemonics

In a **Model Mnemonic**, some type of representation is constructed to help with understanding and recalling important information.

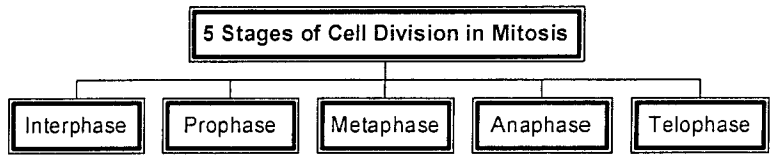
Examples include a circular sequence model, a pyramid model of stages, a pie chart, and a 5-box sequence. Models should be used in addition to words and lists because they make recall at test time much easier.



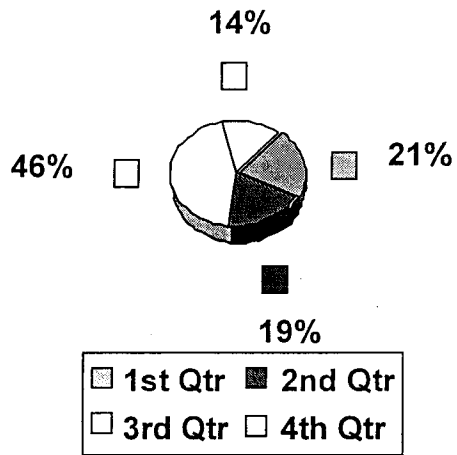
# PYRAMID MODEL



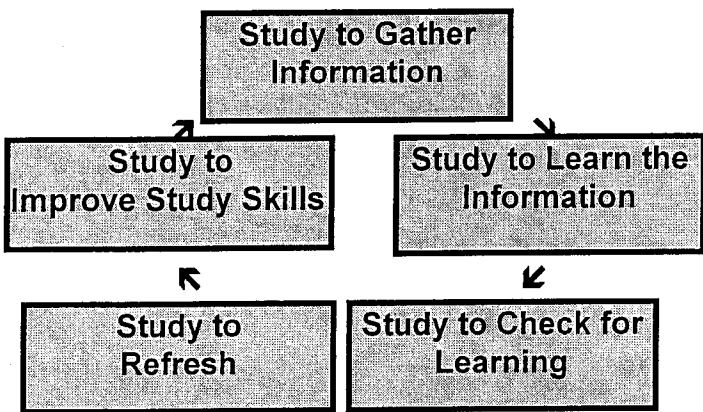
# ORGANIZATION CHART OR IDEA TREE



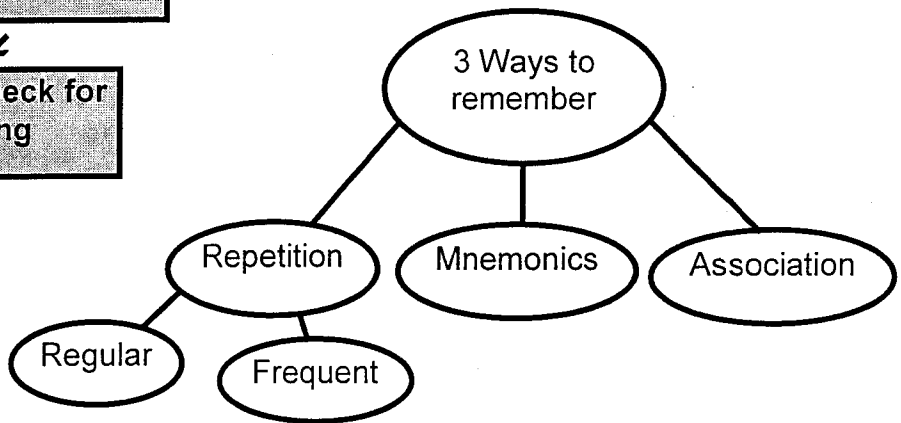
# PIE CHART



# 5 BOX SEQUENCE



# MIND MAP



## 5. Ode or Rhyme Mnemonics

An Ode or Rhyme Mnemonic puts information to be recalled in the form of a poem.

Examples include:

1. A commonly used **Rhyme Mnemonic** for the number of days in each month is:

*30 days hath September, April, June, and November. All the rest have 31,  
Fine! February 28 except when 29.*

2. You'd probably like your doctor to know the difference between cyanate and cyanide: **Cyanate "I ate"** and **Cyanide "I died."** Cyanide is a deadly poison.
3. **In 1492, Columbus sailed the ocean blue.**
4. **I before e except after c  
or when sounding like a  
in neighbor and weigh**
5. Here is an easy way to remember the nerves: olfactory, optic, oculomotor, trochlear, trigeminal, abducens, facial, acoustic, glassopharyngeal, vagus, spinal accessory and hypoglossal.

On Old Olympus' Towering Tops, A Finn And German Viewed Some Hops

## 6. Note Organization Mnemonics

The way textbook and lecture notes are organized can inhibit learning and recall or promote it. In the sense that the organization of notes can promote recall, it is a memory device.

Three examples of organizing note formats that promote recall are as follows:

### 1. Notecards

Notecards are an easy way to organize main ideas and relevant details to be recalled. If main ideas are formatted into possible test questions, notecards can give learners practice in seeing questions and recalling answers as they must do on exams.

Front

Back

*According to Pauk, what are 2  
ways to discourage internal  
distractions?*

1. Concentration score sheet - put a checkmark on the sheet every time I lose concentration.
2. Not worrisome thoughts on paper and do something about them after studying.

## 2. Outlines

Outlines clearly separate main ideas from details. This helps organize the information in the mind making it easier to remember.

### I. PIAGET'S THEORY

#### A. Four Stages

1. Sensorimotor
2. Preoperational
3. Concrete Operations
4. Formal Operations

#### B. Definition of each stage

1. Sensorimotor means .... Etc.

## 3. Cornell System

The Cornell System is another way to use a **Note Organization Mnemonic** to promote recall. A vertical line is drawn 3 inches from the left margin of notebook paper. Main ideas or questions from them are placed to the left of the line and details or answers placed to the right.

Questions	Answers
<i>text p. 292</i> <input type="radio"/> What is the Frontier <input type="radio"/> Vocab Sys.?	<i>A system for mastering new vocab.</i>
<i>text p. 293-294</i> How does the FVS <input type="radio"/> Sys. Work?	<i>1. Look for somewhat familiar words. 2. Learn these meanings</i>
<i>lecture 10/30</i> Why use the FVS? <input type="radio"/>	<i>1. Frontier words=are easiest to lrn 2. Foundation for lrng other frontier words</i>
<input type="radio"/> Example of one of my Frontier words.	<i>Prodigal - Has something to do with a son who left home and was living an extravagant, carefree life.</i>

The topic used here is from How To Study In College (3rd edition) by Walter Pauk, pages 292-300.

## 7. Image Mnemonics

The information in an **Image Mnemonic** is constructed in the form of a picture that promotes recall of information when you need it. The sillier the **Image Mnemonic** is, the easier it is to recall the related information. These images may be mental or sketched into text and lecture notes. Don't worry about your

artistic ability. As long as you know what your sketch means, **Image Mnemonics** will help you learn and remember.

Examples include:

1. You can use an **Image Mnemonic** to remember **BAT** (the depressant drugs mentioned above - Barbiturates, Alcohol, and Tranquilizers). Visualize or sketch in your notes a limp, depressed bat that took Barbiturates, Alcohol, and Tranquilizers.

Picture meeting someone new at a party named John Horsley. Use an **Image Mnemonic** to help you remember his name. Visualize a horse sitting on a john: not pretty but effective in recall.

1. **What is a numismatist?** Visualize an image of a *new mist* rolling onto a beach from the ocean and beach is made of *coins*. Silly? Of course, but silligraphy makes it is easier to remember that a numismatist is a *coin collector*.
2. How about using a bad joke to help you remember? Picture an image of two numismatists having a drink for "old *dime's* sake." Corny? Yes, but cornography often makes things easier to remember.

## 8. Connection Mnemonics

In this type of mnemonic, the information to be remembered is connected to something already known.

Examples include:

1. Remembering the direction of longitude and latitude is easier to do when you realize that lines on a globe that run North and South are long and that coincides with **LONGitude**. Another Connection Mnemonic points out that there is an **N** in **LONGitude** and an **N** in **North**. Latitude lines must run east to west, then. There is no **N** in latitude.
2. Another Connection Mnemonic is related to sound. The 1st part of the word **latitude** sounds like **flat** and **flat runs horizontal or East and West**.

## 9. Spelling Mnemonics

1. Here is an example of a spelling mnemonic: A principal at a school is your pal, and a principle you believe or follow is a rule.
2. Another commonly used **Spelling Mnemonic** is combined with an **Ode/Rhyme Mnemonic**.

**I before e except after c  
or when sounding like a  
in neighbor and weigh**

3. A third example deals with the problems some learners have remembering that there is an "a" in the middle of separate and not an "e." A **Spelling Mnemonic** combined with an **Image Mnemonic** may be used to spell the word seprate using an exaggerated "a."
4. To spell Mississippi, many learners combine a **Rhythm Mnemonic** with a **Spelling mnemonic: M-iss-iss-ipp-i**.
5. Here are some more examples of spelling mnemonics:

**Geography:** George Edwards Old Grandma Rode A Pig Home Yesterday.

Arithmetic: A Rat In The House May Eat The Ice Cream.

Saskatchewan: Ask At Chew An with an **S** in front of it.

Take the 1st letter of each type of mnemonic listed above and print them below on the line.

---



CHECKPOINT 3.1

ANSWERS APPEAR ON PAGE A4

**True or False?**

- \_\_\_ 1. Mnemonics are memory techniques that work as retrieval cues to trigger the recall of information in long-term memory.
- \_\_\_ 2. SAVE CRIB FOTO uses the technique of chunking information into meaningful units.
- \_\_\_ 3. Knowing a mnemonic for a list of items guarantees that you will be able to name all the items in a list without hesitancy or mistakes.

**EXERCISE 3.1**

*Memory Principles Inventory*

**PURPOSE:** The following inventory helps you identify which Principles of Memory you currently use effectively and which you need to strengthen. Understanding how you process information is the first step in the powerful process of using metacognition.

**DIRECTIONS:** Complete the following inventory by answering YES or NO to each question. Be honest with your answers so they reflect your *current* use of the principles.

**SELECTIVITY**

- 1. Do you spend a lot of time studying but seem to study the "wrong information" for tests?
- 2. Do you get frustrated when you read because everything seems important?
- 3. Do you tend to highlight too much when you read textbooks?
- 4. Do your notes seem excessively long and overly detailed?
- 5. Do you avoid making study tools such as flashcards because you are not sure what information to put on the study tools?

YES

NO

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**ASSOCIATION**

- 1. Do you tend to memorize facts or ideas in isolation?
- 2. When you try to recall information you have studied, do you sometimes feel "lost" because there is no direct way to access the information in your memory?
- 3. Do you feel that you are memorizing numerous lists of information but not really understanding what they mean or how they are connected?
- 4. Do you "go blank" on tests when a question asks for information in a form or context different from the way you studied it?
- 5. Do you lack sufficient time to link difficult information to familiar words or pictures?

YES

NO

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**VISUALIZATION**

**YES**

**NO**

1. When you finish reading, do you have difficulty remembering what paragraphs were even about?
2. Do you have difficulty remembering information that appeared in a chart your instructor presented on the chalkboard or on a screen?
3. Do you find it difficult to recall a visual image of printed information?
4. When you try to recall information, do you rely mainly on words rather than pictures?
5. When your instructor explains a new concept by giving a detailed example or anecdote (story), do you have difficulty recalling the example or anecdote after you leave class?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**ELABORATION**

**YES**

**NO**

1. Do you learn individual facts or details without thinking about the schema in which they belong?
2. Do you frequently attempt to use rote memory to memorize facts, definitions, or rules?
3. Do you complete a math problem and immediately move on to the next problem?
4. Do you study information in the same order and in the same form in which it was presented?
5. Do you avoid creating new study tools that involve reorganizing information?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**CONCENTRATION**

**YES**

**NO**

1. Do you often experience divided attention because too many unrelated thoughts disrupt your thinking?
2. Do you have so many interruptions when you study that you are not quite sure what you have accomplished at the end of a study block?
3. Do you miss important information during a lecture because your mind tends to wander or daydream?
4. When you are reading, do you find it difficult to keep your mind focused on the information in the textbook?
5. Do you study with the television, radio, or stereo turned on?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**RECITATION**

**YES**

**NO**

1. When you review for a test, do you do all or most of your review work silently?
2. Do you have difficulty defining new terminology out loud?
3. Do you have difficulty clearly explaining textbook information to another person?

_____	_____
_____	_____
_____	_____

4. When you rehearse information out loud, do you often feel that your explanations are "fuzzy," unclear, or incomplete?

\_\_\_\_\_

\_\_\_\_\_

5. Do you feel awkward or uncomfortable talking out loud to yourself?

\_\_\_\_\_

\_\_\_\_\_

**INTENTION****YES****NO**

1. When you sit down to study, do you set a goal to complete the assignment as quickly as possible?

\_\_\_\_\_

\_\_\_\_\_

2. Do you always have the same purpose in mind when you sit down to study?

\_\_\_\_\_

\_\_\_\_\_

3. Do you lack curiosity, interest, or enthusiasm in the course content for one or more of your classes?

\_\_\_\_\_

\_\_\_\_\_

4. When you begin learning new information, do you find setting a specific learning goal difficult to do?

\_\_\_\_\_

\_\_\_\_\_

5. Do you study facts, details, concepts in the same way that you study steps or processes for a procedure?

\_\_\_\_\_

\_\_\_\_\_

**BIG AND LITTLE PICTURES****YES****NO**

1. Do you have problems distinguishing between main ideas and individual details in textbook passages?

\_\_\_\_\_

\_\_\_\_\_

2. Do you understand general concepts but oftentimes have difficulty giving details that relate to the concept?

\_\_\_\_\_

\_\_\_\_\_

3. Do you grasp specific details but oftentimes have difficulty connecting them together to form a larger picture or a concept?

\_\_\_\_\_

\_\_\_\_\_

4. Do your lecture notes capture main ideas but lack details?

\_\_\_\_\_

\_\_\_\_\_

5. Do your notes include running lists of details without a clear method of showing main ideas?

\_\_\_\_\_

\_\_\_\_\_

**FEEDBACK****YES****NO**

1. Do you use tests as your main means of getting feedback about what you have learned?

\_\_\_\_\_

\_\_\_\_\_

2. Do you keep taking in new information without stopping to see whether you are trying to learn too much too fast?

\_\_\_\_\_

\_\_\_\_\_

3. When you are rehearsing, do you "keep on going" even if you sense that you have not clearly understood something?

\_\_\_\_\_

\_\_\_\_\_

4. Do you tend to use self-quizzing only when you are preparing for a test?

\_\_\_\_\_

\_\_\_\_\_

5. If you get feedback that you did not complete a math problem correctly, do you ignore your original answer and try working the problem again?

\_\_\_\_\_

\_\_\_\_\_

**ORGANIZATION****YES****NO**

1. Does information from lectures often seem to be one continuous stream of information without any apparent organization or structure?

\_\_\_\_\_

\_\_\_\_\_

2. Do you have difficulty remembering the sequence of important events or the steps of a process? \_\_\_\_\_
3. When you try to do a "memory search" to locate information in your memory, are you usually unable to find the information? \_\_\_\_\_
4. Do you spend most of your time trying to learn information in the exact order in which it is presented? \_\_\_\_\_
5. Do you feel unsure about rearranging, reorganizing, or regrouping information so that it is easier to learn and recall? \_\_\_\_\_

**TIME ON TASK**

**YES                      NO**

1. When your assignment is to read and study a specific chapter, do you spend a lot of time on the assignment so that you will not need to make contact with it again for several weeks? \_\_\_\_\_
2. When you are studying, do you often feel as though you are trying to study too much information too quickly? \_\_\_\_\_
3. When you study, do you change to a second subject as soon as you complete the assignments for the first subject? \_\_\_\_\_
4. Are some of your study blocks more than three hours long? \_\_\_\_\_
5. In at least one of your courses, do you spend less time studying that subject than most other students in class do? \_\_\_\_\_

**ONGOING REVIEW**

**YES                      NO**

1. Once you have completed an assignment, do you put it aside until close to the time of the next test? \_\_\_\_\_
2. Do you have problems remembering or recalling information that you know you learned several weeks earlier? \_\_\_\_\_
3. Do you need to add more review time to your weekly study schedule? \_\_\_\_\_
4. Do you study fewer than two hours per week for every one hour in class? \_\_\_\_\_
5. Do you sit down to study and feel that you are all caught up and have nothing to study? \_\_\_\_\_

**ASSESSING YOUR CURRENT USE OF THE PRINCIPLES OF MEMORY**

1. A NO answer indicates you are already using the Principle of Memory when you study. If you gave NO answers to all the questions within one Memory Principle box, you are using the Principle of Memory consistently and effectively.
2. A YES answer indicates that you will benefit by learning to use this Principle of Memory more effectively when you study. The more YES answers you have, the greater the need to add this Principle of Memory to your learning strategies or study techniques.

**CONCEPT CHECK 3.2**

Which Principles of Memory do you use effectively on a consistent basis? Which Principles of Memory do you need to improve using when you study?

### FIGURE 3.1

#### Twelve Principles of Memory (SAVE CRIB FOTO)

**Selectivity:** Select what is important to learn.

**Association:** Associate or link together chunks of information.

**Visualization:** Picture in your mind the information you are learning.

**Elaboration:** Work with information and encode information in new ways.

**Concentration:** Stay focused and attend to specific stimuli.

**Recitation:** Repeat information verbally in your own words.

**Intention:** Create a learning goal with clearly defined desired outcomes.

**Big and Little Pictures:** Recognize different levels of information.

**Feedback:** Check the accuracy of your learning and use forms of self-quizzing.

**Organization:** Reorganize information in meaningful, logical ways.

**Time on Task:** Dedicate and schedule ample time to learn.

**Ongoing Review:** Practice retrieving information from long-term memory.

A **mnemonic** is a memory technique or a memory tool that serves as a bridge to help you recall information from long-term memory.

#### CONCEPT CHECK 3.1

What memory tools do you already use to help your working memory work efficiently? Do you have a system you use to assess the effectiveness of your learning strategies?