

FIRST-Letter Mnemonic Strategy Study Guide

Advance Organizer

Today you will begin learning an easy way to remember listed facts for a test. It is called the FIRST-Letter Mnemonic Strategy.

What does "mnemonic" mean?

Most of you have had experience with some mnemonic devices in the past. They have helped you remember the steps of strategies.

What mnemonic devices have you learned to remember steps of strategies?

What do these mnemonic devices stand for?

As you can see, you can remember some pretty long lists using these mnemonic devices even though you haven't been working with some of these lists for a while.

In all of these cases, the mnemonic devices were designed for you. Within the next few weeks, most of you will learn how to design your own mnemonic devices to memorize and recall information.

Rationales

Your teachers often tell you that you must memorize information for a test. For example, they tell you that you must know the names of all the bones in the arm of the three causes of World War II. Using the FIRST-Letter Mnemonic Strategy will enable you to remember such things for a test.

If you can remember more information for a test, what is likely to happen?

If you can be sure you'll remember things for a test, imagine for a moment how you would feel when you go to take a test or while you're taking a test.

How do you think you would feel?

Characteristics of situations where FIRST-Letter Mnemonic Strategy can be used

You can use the FIRST-Letter Mnemonic Strategy whenever you have to remember information in a list.

Definition for a List

A list has a main idea heading and several items that are related to the heading.

Example:

- **The Senses**
 - Sight
 - Hearing
 - Smell
 - Taste
 - Touch

What is the main idea heading?

What are the subsumed items that are related to the heading?

It is useful to be able to memorize a list like this because if you know this list, you will be able to answer a variety of questions on a test.

(TTYN) What are some example questions a teacher could ask you about this listed information?

Write one example here.

Share some of your ideas with the class. (Think of all types of questions such as True or False, Short Answer, Fill-in the blank, Essay, Multiple Choice)

As you can see, knowing the information in a list can be valuable when you are trying to answer a variety of questions on tests.

(TTYN) Think of situations in and outside of school where you have to answer questions like the ones we have discussed.

In summary, this strategy can help you to do well in a variety of situations in school and after school.

Benefits for Students

Students who have learned the FIRST-Letter Mnemonic Strategy have been happy with the improvement they have seen in their test grades.

	Before Mastery	After Mastery
Test Grades	51%	85%

Before the students learned this strategy, they could correctly answer only 51% of the test questions about listed information. After they mastered the strategy, they could answer 85% of the questions.

How does this translate into an improvement in grades?

Set Goals

Get out Progress Chart

Suggestions

Step 2: Describe--2 days

Step 3: Model--1 day

Step 4: Verbal Rehearsal--1 to 2 days

Step 5: Controlled Practice--5 to 20 days

Step 6: Grade-Appropriate Practice--6 to 10 days

Step 7: Posttest--2 days

Step 8: Generalization--4 to 8 weeks

Steps for Designing Mnemonic Devices

There are five steps in the strategy used to design mnemonic devices to remember lists.

Step 1: _____

The first step of the strategy is "Form a word."

This means to look at your list, find the first letter of each of the items in the list, and write these first letters horizontally on a piece of scrap paper to see if they make a word.

Look at Cue Card #3

Look at List #1

For this list of the movies in which John Wayne, a famous actor, dies, we would find the first letter of each item in the list. (Circle the first letters.)

Then we would write these letters, S, T, A, R, and S, horizontally to see if they form a word.

Write the letters in capital letters below.

What word do these letters make?

This is a simple word that everyone knows. It is a mnemonic device that can be used to remember the items in the list. If you can remember the word, you will have a good chance of remembering the items. Sometimes you will form a nonsense word--a group of letters that isn't really a word--for your mnemonic device. As long as it's something you can remember, it's okay to use it.

Step 2: _____

Sometimes it doesn't work quite so easily. Look at List #2 on Cue Card #3.

For this list of scientific objects that have never been seen, if we do Step 1 and write the first letters, what do we get? Is it a word?

This is where Step 2 of the strategy comes in handy.

If Step 1 doesn't form a word, in Step 2, we try to insert a letter or letters among the first letters to form a word.

How might we insert a letter among the letters, B, A, C, and E, to form a word?

Any time we insert a letter, we take care to write it in lower case form. This distinguishes it from the other letters which represent items in the list.

By inserting the letter "r," we have formed the word, "Brace." Sometimes you need to insert more than one letter to make a word; however, it's best to insert just one or two letters, or you may forget which of the letters represent items in your list.

Often, you will find that an easy way to determine if you can insert a letter is to focus on the vowels, a, e, I, o, and u. This is because the majority of list items start with consonants. Try inserting each one of the vowels in different positions to form a word.

Example: If we had the letters, S, T, R, and P, you could try the vowel "a" between each consonant. When I try the "a" between the R and the P, I am able to spell what word?

If I hadn't formed a word by trying out the "a," I'd then try an "e" in the various positions. I could also try out each of the other vowels. You will find that after you practice this a bit, you will be able to do this very quickly in your head. You won't have to write the letters and erase them.

Step 3:_____

Sometimes, no matter how hard you try, inserting a letter or letters just doesn't work. In this case, you can try using Step 3 of the strategy which is "Rearrange the letters."

Look at List #3 on Cue Card #3.

Let's say we have this list to memorize, and we've tried Steps 1 and 2 of the strategy with it. Can you rearrange the first letters, M, S, T, and A, to form a word?

By rearranging the letters, you've formed the word _____ or _____. You must be careful in using Step 3 because often you will have to memorize a list where the order of the items in the list is very important. In this case, you must never rearrange the letters because you will rearrange the list and get everything mixed up. This list of items that forms the word "MAST" can be rearranged. The order is not important here. In a list like "the steps in making a chemical reaction" you must keep the steps in order if you are going to get a chemical reaction. Thus, you must not rearrange the steps in this kind of list as you design a mnemonic device for them.

Step 4:_____

If you are unable to make the first three steps work, you can try Step 4: Shape a sentence.

This means you make a sentence by using the first letter of each word in the list as the first letter of each of the words in a sentence. If you can't make a whole sentence, try making a phrase or part of a sentence. It helps the memorization process if you can make the sentence about the topic of the list. Alternatively, students often make up sentences about their friends or things that are important to them. This is okay, too.

Look at List #4 on Cue Card #3.

Write the first letters of these men's last names with space between the letters. Use the letters from their last names since last names are usually what are required on tests.

C G D K D

See if you can think of a sentence that would work here.

Step 5:_____

If you can't figure out a mnemonic device using the first four steps, the fifth step is "Try combinations."

For this step, you try using the other four steps in the combination. For example, you might find that you need to rearrange the letters and insert a letter to get a word, rearrange the letters before you can make a good sentence, or you might insert a small word in your sentence like an "and" to make it work. The possibilities are only limited by your imagination. The important thing is to get something short and catchy to help you memorize the list.

Let's say we had a hard time making a sentence with the letters in the order, C, G, D, K, D. Rearrange the letters and make a different sentence.

Step 5 is the most versatile step since it always works when the other steps fail.

An Easy Way to Remember the Five Steps of the Strategy

We can remember the steps of the strategy for designing mnemonic devices with the letters in the word, "FIRST." This word also reminds us to use the first letters of important words in our lists.

Steps for Making and Memorizing Lists

Step 1:_____

Any time you see a heading and a series of items listed under the heading, it should act as a clue to you. Unfortunately, often when you are looking for lists, they don't jump right out at you like this; they are kind of "hidden." Therefore, you need to look for clues as to their existence.

There are a number of Word Clues that you can use to find a list. (Cue Card #5)

(Read through the list of words together.)

When you hear or see one of these words, you should listen or look to see if a list follows. For example, a teacher might say, "There are three qualifications for President of the United States." What is the Word Clue in that Sentence?

Usually after a number word clue, you'll hear a number of items for your list. In this case, the teacher would tell you what the three qualifications for President are. You will then be able to make a list.

What are some other examples of things teachers say or authors of textbooks say in making use of these word clues? Give some examples. Write down at least two.

- 1.
- 2.

These examples would each form the title or heading for a list, and the points of information which follow them would form the items in the list.

Other Clues

There are some other clues for lists for which you can listen and/or watch. (Cue Card #6)

Discuss each item on this cue card.

Take out a textbook from any class. TTYN and find an example in the textbook of the clue assigned to you. Share your example with the whole group.

Importance Clues

It is important to know how to decide whether a list is important enough to memorize. You should always ask yourself the question, "Would my teacher think this list is important enough to ask a question about it on the test?" If the answer to this question is "Yes," you should memorize the list. Usually, if the information was mentioned in class and is covered in the chapter, it is important information to know. If you are not sure, there are some other clues you can use to help you decide if a list is important. (Cue Card #7)

Read and discuss each importance clue.

If any of these Importance Clues are present, it will be critical to memorize a list before the test because they indicate that the teacher or the author of the textbook values the information in the list.

Writing Headings for Lists

Once you've found a clue and you've decided that the list is important, you need to decide what the heading of your list will be. There are five rules to follow when making your heading.

1. The first rule is that the heading must summarize a group of information.

This means that the heading must be a general category, class, concept, or idea under which several items can be listed.

Name a category of things.

Each of your headings must be a category. Most of the Words Clues on Cue Card #5 will help you to make categories.

Which of the Word Clues on Cue Card #5 would not form categories?

The number "five" does not form a category, and neither does a word like "first." All of the other words do help you to form categories. You will have to add the pertinent information to make a heading. For example, to the Word Clue, "functions" you will have to add words to make a heading like, "The functions of bird feet."

2. The second rule is that the heading must be separated from the list items.

This means that your heading must be designated as the heading and shown to be different from the rest of the list items in some way. You can do this by underlining it, by putting extra space between it and the items in the list, or by indenting the list items underneath the heading. Alternatively, you can put the heading on one side of a card and the list items on the other side of a card.

3. The third rule is: the heading must be short

Let's say that you see a sentence in your book that says: "There are two layers in the skin." What's the clue here?

How can we make this into a title or heading for a list? We need to shorten it as much as possible. (Do not put the number "two" in the heading because you will need to memorize the information without the number clue.) That way, if the teacher does not give you the number clue on the test, you will not be handicapped in answering the question. You must eliminate numbers from headings and will not receive credit for a heading if it contains a number.

4. The fourth rule for writing headings for lists is: Make the heading accurate.

When you shorten a statement, make sure you don't lose any meaning or change the meaning.

What if you find this sentence: "There are two types of glands in the skin."

Would any meaning be lost if you made the heading of your list, "Types of glands?" What would the heading be?

If we use the first heading, "Types of glands," that cues us to think of all the possible types of glands in the whole body. If we use the heading, "Types of skin glands," we are cued to think of only the types of glands in the skin. The second heading more accurately reflects the items that will be in this list than the first heading.

Also, in order to be accurate, all words in the heading must be spelled correctly. Always copy words for your headings exactly.

5. The fifth rule is that a heading must be limiting.

This means that your heading must not be so broad that it covers a hundred different things. The heading must limit what information can be listed under it.

For example, if a chapter in your textbook is about bones as a general rule, you shouldn't make the heading for a list be "Bones."

Instead, you should search further and find more limiting headings like "Parts of a bone," "Bones in the head," or "Bone functions."

For the most part, your lists should have no more than six or seven items in them, therefore, your headings must limit the size of your list to seven or fewer items.

Summarize

What are the five rules for making a heading?

-
-
-

-
-

Step 2: _____ the items.

Once you have found a clue and have turned that clue into a good heading, you will need to do Step 2 of the "LISTS" steps which is "Investigate the items."

What does "investigate" mean?

That is what you need to do here. You need to research which items should be included in your list.

1. The item must be _____.

You need to find each item that you think is related to the heading of your list. What does "related" mean?

Each item in your list must be connected directly to the list heading.

To find related items, look in the nearby vicinity of your heading clue and locate each item that can be subsumed under the heading of your list. Write each item under the heading on your scrap paper. Keep looking until you are sure that you have found all the items that are related and have written them down.

As you write each related item on your scrap paper, there are several things to which you should attend.

2. The item must be _____.

Most items should be one or two words long so that they will be easy to remember. Occasionally, you might have a phrase or a sentence serve as an item like, for example, when a whole paragraph in your book describes an item.

3. The item must be _____.

As with the title of your list, you must be careful that each item in your list is accurate.

This means that the item must be spelled correctly. It must also be paraphrased appropriately. In other words, when you put an item into your own words to shorten it, you need to make sure you don't change its meaning or leave out some part of it that is important.

4. The item must be _____.

It's also critical that you make sure an item is useful.

To be useful, an item should contain information you need to know. For example, it should be something the teacher might require you to know for a test.

Example: (Cue Card #10)

Look at List #1.

The items in this list are short and accurately reflect headings in a chapter, but what is wrong with them?

These items have no content. They don't tell us anything that we can use on a test about digestion. They don't help us understand digestion better. Some of these items might make good headings for other lists if we reworded them. What might one heading be? _____
or _____ or _____

Look at List #2 and #3 on Cue Card #10.

Which of these lists contains items that are useful?

The student who wrote List 3 used words he found in the paragraph, but he used the wrong words - words that did not provide useful information to know for a test.

When you're writing down list items, always ask yourself whether they contain useful information. If they are not useful, think about whether they can form headings for other lists or whether you need to look for more useful information.

5. The item must not be _____.

The next requirement is that an item must not be repetitive.

In other words, don't write the same item twice. Even when you use different words, if two items mean the same thing, the second one will not be acceptable. In other words, you probably won't get any points for naming it on a test.

6. The item must be _____ to other items.

This next requirement is very important. Each item in a list must be parallel to the other items in the list. What does "parallel" mean? (when we are talking about two items)

When we're talking about list items being parallel, that means that they're similar in the way that they relate to the heading of the list.

Example list: (List #4 on Cue Card #10)

In this list, each of the items is connected to the title in the same way. Each item is a kind of muscle. The three list items are parallel.

Look at List #5 on Cue Card #10. What is the problem with this list?

Even though all of these items relate to the heading, "Muscles," each item does not relate to the heading in the same way as each other item. In this list, a student has listed the three types of muscles (smooth, cardiac, and skeletal) along with a part of the body that has smooth muscle in it (the uterus), the names of two skeletal muscles (temporalis and masseter) and some other words he found highlighted in the section. Just because words are in bold-face print in a section, it doesn't mean they belong in the same list as other highlighted words in the section. Be sure to investigate carefully, and put only parallel items in your list.

In order to check whether items are parallel, you'll have to tell yourself how each item is related to the heading. For example, for this list, you'd say to yourself, "Smooth muscle" is a type of muscle. Are there other types of muscles here? Yes, "cardiac muscle" is a type of muscle, and "skeletal muscle" is a type of muscle.

The uterus is not a type of muscle. It's an organ in the body that has smooth muscles: therefore, it does not belong in this list. X-out.

An embryo or baby develops inside the uterus. It is not a kind of muscle either. X-out.

Smooth muscle action is involuntary. That is, you cannot cause a smooth muscle to contract through conscious thinking. "Involuntary" therefore is not a word that describes a kind of muscle. It describes a characteristic of smooth muscles. This word does not belong in the list either. X-out.

Temporalis and masseter are not types of muscles. They are the names of muscles, therefore, they do not belong in this list either. X-out.

What should the title of this list be?

We always should make sure our heading accurately describes and limits the items in the list.

7. _____ the list.

Once you've got all the items listed, and you're sure they're complete, accurate, useful and parallel, decide whether your list is too long. In order to prepare a list for memorization purposes, as a general rule, it should be no more than about seven items long. If your list is too long, you'll need to divide it into several shorter lists.

Example: (List #6 on Cue Card #10)

What are listed here?

The problem with this list is that it's going to be too long to apply any of the FIRST steps to it. We can't form a word or a sentence that's that long. As a result, this kind of list needs to be broken up into smaller lists.

How could we break this list up, and what might the titles of the new lists be? Ideas? Therefore, our final requirement for list items is that they must not make the list too long.

Summarize the requirements for items (TTYN)

Step 3: Select a mnemonic device using "FIRST."

Once you've settled on a list heading and some items, you're ready for Step 3. In this step, you continue to use your piece of scrap paper, and you apply the "FIRST" steps to your lists to get a mnemonic word or sentence.

What mnemonic device are we going to use to remember the steps for designing mnemonic devices?

Step 4: Transfer the information to a _____.

Once you have selected a mnemonic device, you need to do Step 4. This means that you write the heading for your list in the center of one side of a 3"x5" card. (example)

Once you've written the heading for your list on one side of the card, you should turn the card over. In the upper left-hand corner, you should write your mnemonic device. In the center of the card, you should

write your list items. (Example)

Be sure to list your items on the card in the same order that they appear in your mnemonic device. The list on your card may not be in the same order as the list on your scrap paper. When you transfer the information to your card, be sure to copy critical words exactly. Why do you think you should avoid misspelling words on your cards? TTRN

Step 5: _____ Test.

Once you've made your card, you're ready for the last step in "LISTS."

This is the memorization step. To memorize your list, you will test your own knowledge of the list until you are certain that you now it well. To test yourself, you should look at the heading of your list and without looking at the back of the card, try to say the mnemonic word or sentence and what each of the letters stands for. (Example)

You should say this to yourself until you can say it at least twice in a row correctly without looking at the list on the back of your card.

Visual Images

Often before this step, it's very helpful to form a picture of the heading of your list and the mnemonic device in your head. For example, for List #3 our mnemonic device was "MAST." How might a person make a picture in his mind of a desert and a mast? IDEAS? (TTYN)

Now each time you look at the front of the card for this list, you'll see the word, desert. When you see that word, you can immediately think of your picture and you'll remember your mnemonic device, "MAST." Then you can say, "MAST" and name each of the steps.

Spelling Difficulties

Sometimes the spelling of words you have to memorize is difficult to remember. Which of these words might be difficult to remember?

- Mohave
- Sahara
- Thar
- Arabian

It would be a good idea to take out a piece of scrap paper and use the folded paper technique to practice spelling that word correctly. Also, each time you say the word while you're doing the self-test step, spell the difficult word too.

Meaning of items.

Once you have the list memorized, it's a good idea to make sure you can say what each item in the list means. This is more critical for some lists than others. For example, with a list of the senses, we all know what "sight" and "hearing" are, and it's not very likely that a teacher would ask you to define them on a test. On the other hand, a teacher might ask you to define such items as "cosmic rays" and "antimatter" or to tell who Cary Grant and Neil Diamond are. (Lists #2 and #4 on Cue Card #3)

For this reason, after you've memorized a list, you need to say what the items mean to yourself several

times until you can define them all twice in a row.

The mnemonic device LISTS

- L
- I
- S
- T
- S

(TTYN) Compare this strategy to your previous study habits. What are the advantages of this new routine?

At first it will take several minutes to find a list and memorize it. The more practice you have, the faster you will get. You will eventually be able to find, design a mnemonic device for and copy a list within 3 to 4 minutes. Most of your time should be spent memorizing and testing yourself over the content of the list.

Model

Verbal Rehearsal

Thanks to Terry Freese, SIM Trainer and teacher from Rocky Comfort, Missouri, for contributing this study guide to SIM Trainer Resources on the KU-CRL Web site.