# The Vocabulary
# LINCing
# Routine

## Professional Developer's Guide

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# OVERHEAD TRANSPARENCIES, SUPPORT MATERIALS & TRAINING ACTIVITIES

# THE VOCABULARY
# LINCING ROUTINE IS ...

■ A way to help students remember the meaning of important words.

■ A way to "revisit" and solidify student knowledge of terms introduced or taught in a lesson.

# THE RESULTS OF THE ROUTINE

## TABLE 1:
### Mean Percentage Correct on Social Studies Vocabulary Tests*

|  | Test 1 (Before LINCS) | Test 2 (After LINCS taught in Class A) |
|---|---|---|
| LD students in Class A | 53% | 77% |
| NLD students in Class A | 84% | 92% |
| All students in Class B | 86% | 85% |

* These results are by M. Wedel, D.D. Deshler, J.B. Schumaker, & E.S. Ellis, in prep., *Effects of Instruction of a Vocabulary Strategy in a Mainstream Class*, Lawrence, KS: Center for Research in Learning. Some of the LD students in this study received additional instructional time outside of the mainstream class when they needed it to complete the practice activities.

# THE RELATIONSHIP BETWEEN THE LINCING ROUTINE AND THE LINCS STRATEGY

- The LINCing Routine is based heavily on the LINCS Strategy.

- The LINCS Steps are the same in both books.

- Primary difference: where each should be used and by whom.

# WHERE THE LINCing ROUTINE SHOULD BE USED AND BY WHOM

■ Within the context of a general education classroom in which a diverse group of students is enrolled (e.g., biology or history).

■ Teachers of subject-area classes.

# WHERE THE LINCS STRATEGY SHOULD BE TAUGHT AND BY WHOM

- ◼ In small classes where intensive types of instruction can take place.

- ◼ Support teachers (e.g., special education teachers, study skills teachers).

# OTHER CONTENT ENHANCEMENT ROUTINES THAT PROMOTE THE RECALL OF INFORMATION

■ The Clarifying Routine

■ The Framing Routine

■ The Recall Enhancement Routine

# WHEN TO USE THE CLARIFYING ROUTINE

■ As a means to have an in-depth discussion about a topic (e.g., segregation) and how it relates to students' current lives.

■ Within the context of a general education classroom in which a diverse group of students is enrolled (e.g., biology or history).

# WHEN TO USE THE FRAMING ROUTINE

■ As a means to help organize a large body of information related to a key topic (e.g., the Progressive Era).

■ Within the context of a general education classroom in which a diverse group of students is enrolled (e.g., biology or history).

# WHEN TO USE THE
# RECALL ENHANCEMENT ROUTINE

■ As a means to help students remember lists and small groups of facts.

■ Within the context of a general education classroom in which a diverse group of students is enrolled (e.g., biology or history).

# COMPONENTS OF THE LINCing ROUTINE

- **The LINCS Table**

- **The LINCS Steps***

- **The Cue-Do-Review Sequence**

*In all other Content Enhancement manuals, these instructional procedures are referred to as the "LINCing Steps." This name has been changed for this manual to eliminate any confusion that might arise between the instructional procedures themselves (the LINCS Steps) and the name of this routine, the LINCing Routine.

# THE LINCS TABLE

Is a visual device that:

■ Can be used in place of traditional flash cards.

■ Is used initially under teacher guidance to help students understand the meaning to important vocabulary words.

■ Focuses attention on the most important aspects of a term's definition.

■ Uses auditory and visual memory devices to promote recall of a term.

■ Links learning to previous knowledge connections.

# LINCS Tables

**① Term**

**③ Reminding Word**

**④ LINCing Story**

**⑤ LINCing Picture**

**② Definition**

**① Term**

**③ Reminding Word**

**④ LINCing Story**

**⑤ LINCing Picture**

**② Definition**

**① Term**

**③ Reminding Word**

**④ LINCing Story**

**⑤ LINCing Picture**

**② Definition**

**① Term**

**③ Reminding Word**

**④ LINCing Story**

**⑤ LINCing Picture**

**② Definition**

**L**ist the parts   **I**dentify a Reminding Word   **N**ote a LINCing Story   **C**reate a LINCing Picture   **S**elf-test

# LINCS Tables

| ① Term / ③ Reminding Word | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| | | | |
| ① Term / ③ Reminding Word | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| | | | |
| ① Term / ③ Reminding Word | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| | | | |
| ① Term / ③ Reminding Word | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| | | | |

**L**ist the parts   **I**dentify a Reminding Word   **N**ote a LINCing Story   **C**reate a LINCing Picture   **S**elf-test

# SECTION 1 OF THE LINCS TABLE
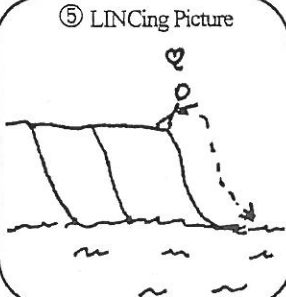
## THE TERM:

## An important word that all students are expected to understand and remember

| ① Term<br><br>palisades<br><br>③ Reminding Word<br><br>pal | ④ LINCing Story<br><br>My pal, Joe, dove from the cliff into the ocean. | ⑤ LINCing Picture | ② Definition<br><br>A line of steep cliffs along a river or ocean |
| --- | --- | --- | --- |

# SECTION 2 OF THE LINCS TABLE

## THE DEFINITION:

## A brief statement of the term's definition

| ① Term **palisades** <br><br> ③ Reminding Word **pal** | ④ LINCing Story <br> My pal, Joe, dove from the cliff into the ocean. | ⑤ LINCing Picture | ② Definition <br> A line of steep cliffs along a river or ocean |
|---|---|---|---|
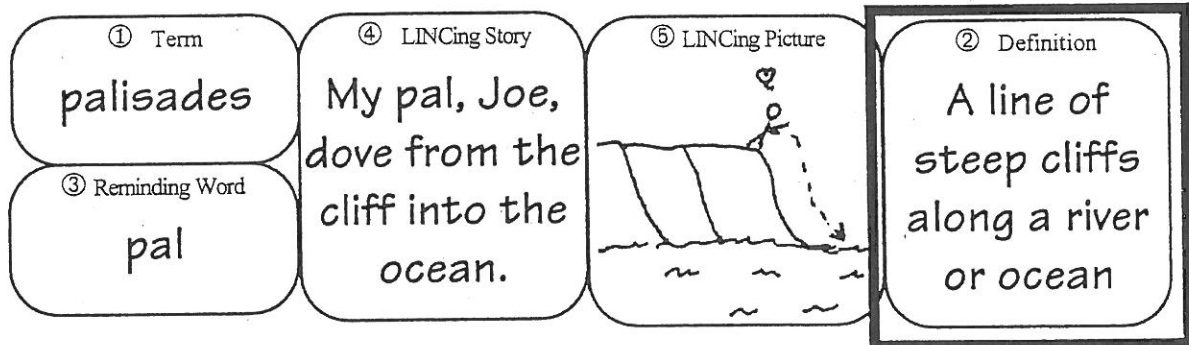
## THE REMINDING WORD:

## A word that sounds similar to the new term.

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| palisades | My pal, Joe, dove from the cliff into the ocean. | | A line of steep cliffs along a river or ocean |

③ Reminding Word

pal
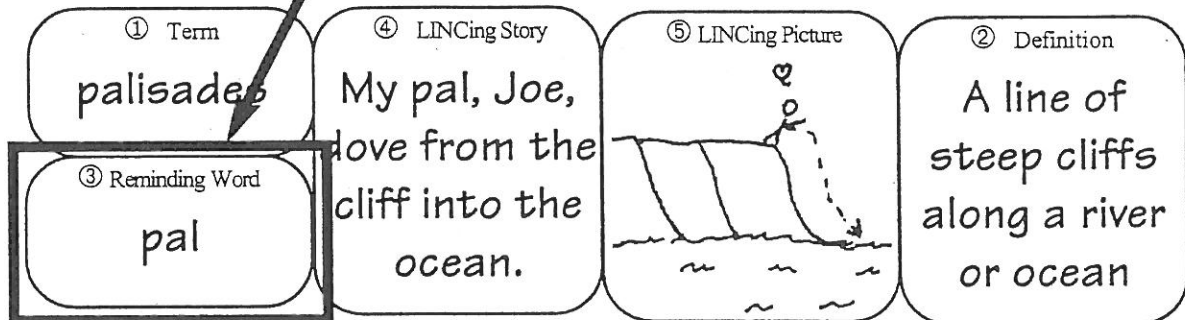
# A GOOD REMINDING WORD ALWAYS ...

- ◼ Sounds like part or all of the new word.

- ◼ Is a real word.

- ◼ Has a meaning that you already know.

- ◼ Helps you remember what the new word means.

# AN EFFECTIVE REMINDING WORD

An effective Reminding Word is a word that *sounds similar* to the new

## An Effective Reminding Word

### ALWAYS

■ Sounds like part or all of the new word.

■ Is a *real* word.

■ Has a meaning that you already know.

■ Helps you remember what the new word means.

### SOMETIMES

■ Sounds like the *beginning* of the new word.

■ Sounds like the *end* of the new word.

■ Rhymes with the new word or sounds like *almost all* of the new word.

■ Has a meaning that is *very similar* to the new word's meaning

■ Can be *two or more* words that sound like

### NEVER

■ Sounds completely different from the new word.

■ Is a nonsense word.

■ Has a meaning that you don't know.

## Examples and Nonexamples

| EXAMPLES | | EXAMPLES | | NONEXAMPLES | |
|---|---|---|---|---|---|
| NEW WORD | EXAMPLE | NEW WORD | EXAMPLE | NEW WORD | NONEXAMPLE |
| shivaree | *shiver* | flourite | *floor* | shivaree | *celebration* |
| paramecium | *parachute* | marsupium | *opium* | paramecium | *parapuse* |
| crinoline | *crinkle* | fief | *chief* | crinoline | *crinium* |
| | | serf | *servant* | | |
| | | paraffin | *pair of fins* | | |

# Section 4 of the LINCS Table

## THE LINCING STORY:

## A phrase or sentence that connects—or links— the definition of the new term to the Reminding Word.

| ① Term **palisades** ③ Reminding Word **pal** | ④ LINCing Story My pal, Joe, dove from the cliff into the ocean. | ⑤ LINCing Picture | ② Definition A line of steep cliffs along a river or ocean |
|---|---|---|---|
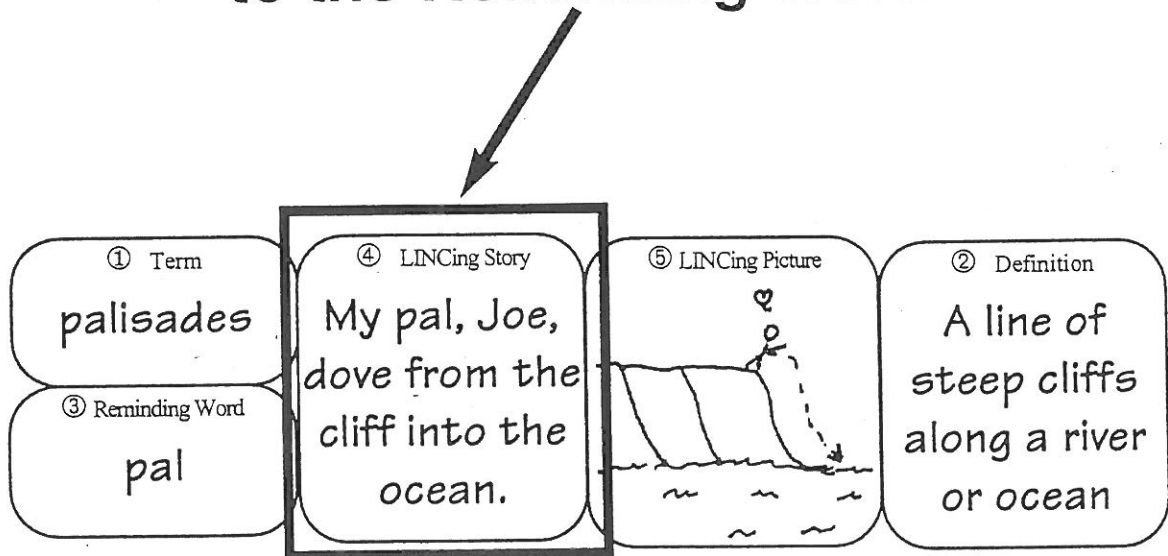
# A good **LINCing** Story
## always ...

- Includes the Reminding Word or some form of the Reminding Word.

- Links the Reminding Word to the meaning of the new word.

- Is short and simple.

# AN EFFECTIVE LINCING STORY

An effective LINCing Story is short and simple and helps you take advantage of what you already know by associating the meaning of the Reminding Word with the meaning of the new word.

## An Effective LINCing Story

### ALWAYS

■ Includes the Reminding Word or some form of the Reminding Word.

■ Links the Reminding Word to the meaning of the new word.

■ Is short and simple.

### SOMETIMES

■ Includes *both* the Reminding Word and the new word.

■ Is funny and/or bizarre.

### NEVER

■ Includes only the new word.

■ Is so complex that it takes a lot of mental energy to remember it.

■ Is long like a paragraph.

■ Includes words you don't understand.

### EXAMPLES

FLOURITE: a purple mineral used to make steel hard. Reminding Word: FLOOR. LINCing Story: "My knee turned purple when it hit the hard, steel floor." (*Story helps you think of steel and the color purple.*)

DECREE: to make a decision and force it on others. Reminding Word: DECIDE. LINCing Story: "The dictator decided to force everyone to pay higher taxes." (*Story helps you think of a decision being forced on others.*)

SHIVAREE: a noisy song sung to a newly married couple. Reminding word: SHIVER. LINCing story: "The married couple shivered when the guests sang the shivaree outside their window" (*Story reminds you of both a song and of a married couple.*)

### NONEXAMPLES

FLOURITE: a purple mineral used to make steel hard. Reminding Word: FLOOR. LINCing Story: "The floor was messy." (*Story does not help you think of steel or the color purple.*)
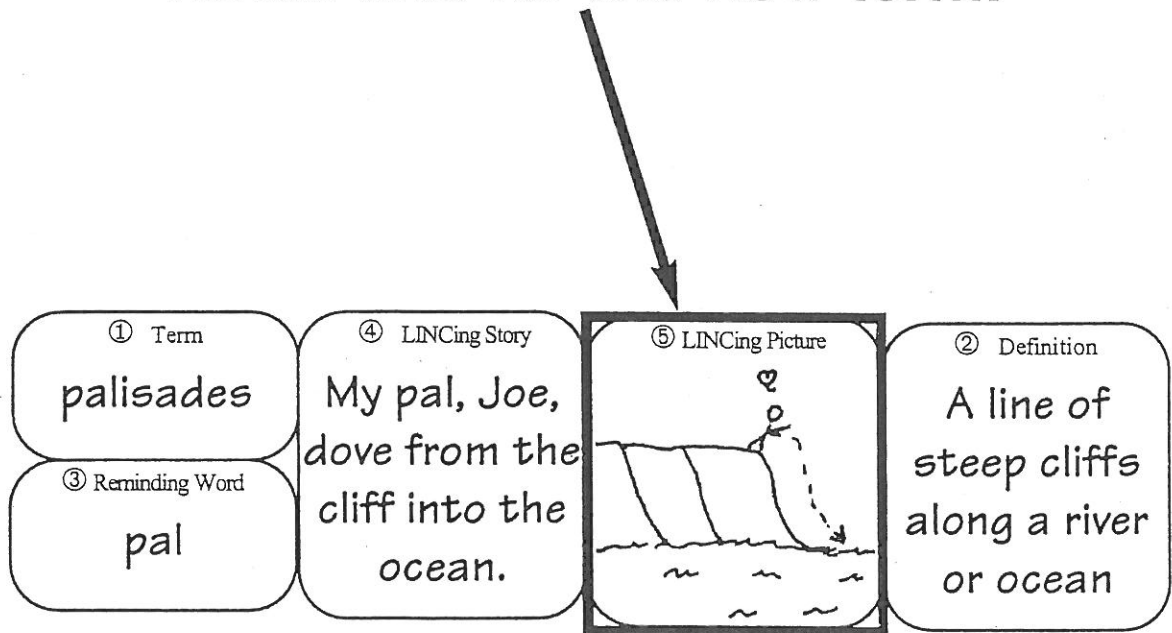
DECREE: to make a decision and force it on others. Reminding Word: DECIDE. LINCing Story: "He decided to go to town." (*Story does not help you think of forcing a decision on others.*)

SHIVAREE: a noisy song sung to a newly married couple. Reminding word: SHIVER. LINCing story: "They shivered." (*Story does not help you think about a song or of a married couple.*)

# SECTION 5 OF THE LINCS TABLE

## THE LINCING PICTURE:

## A memory device that provides a visual link for the new term.

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| palisades<br><br>③ Reminding Word<br><br>pal | My pal, Joe, dove from the cliff into the ocean. |  | A line of steep cliffs along a river or ocean |

# AN EFFECTIVE LINCING PICTURE

- Contains a part related to the Reminding Word

- Contains parts related to the important ideas in the definition.

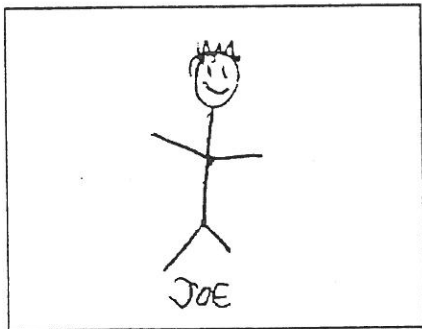- Helps you remember the new term's definition.

Example term: palisades

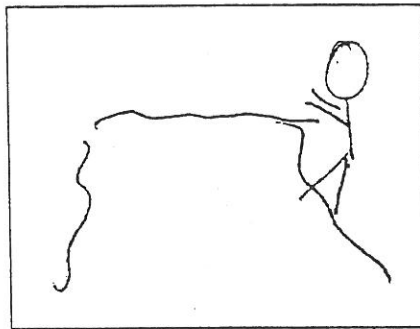Definition: a line of steep cliffs that rise along a river or ocean

Reminding Word: pal

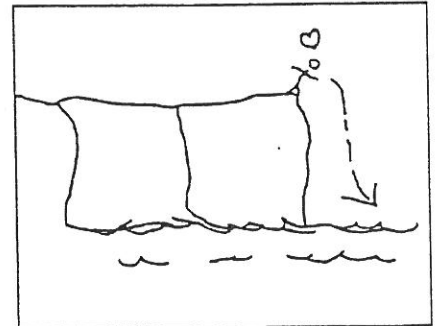LINCing Story: My pal, Joe, dove from the cliff into the ocean.

| Poor LINCing Picture | Better LINCing Picture | Best LINCing Picture |
|---|---|---|

# CHAIN ANALOGY

Different pieces of knowledge are
linked together like a chain.
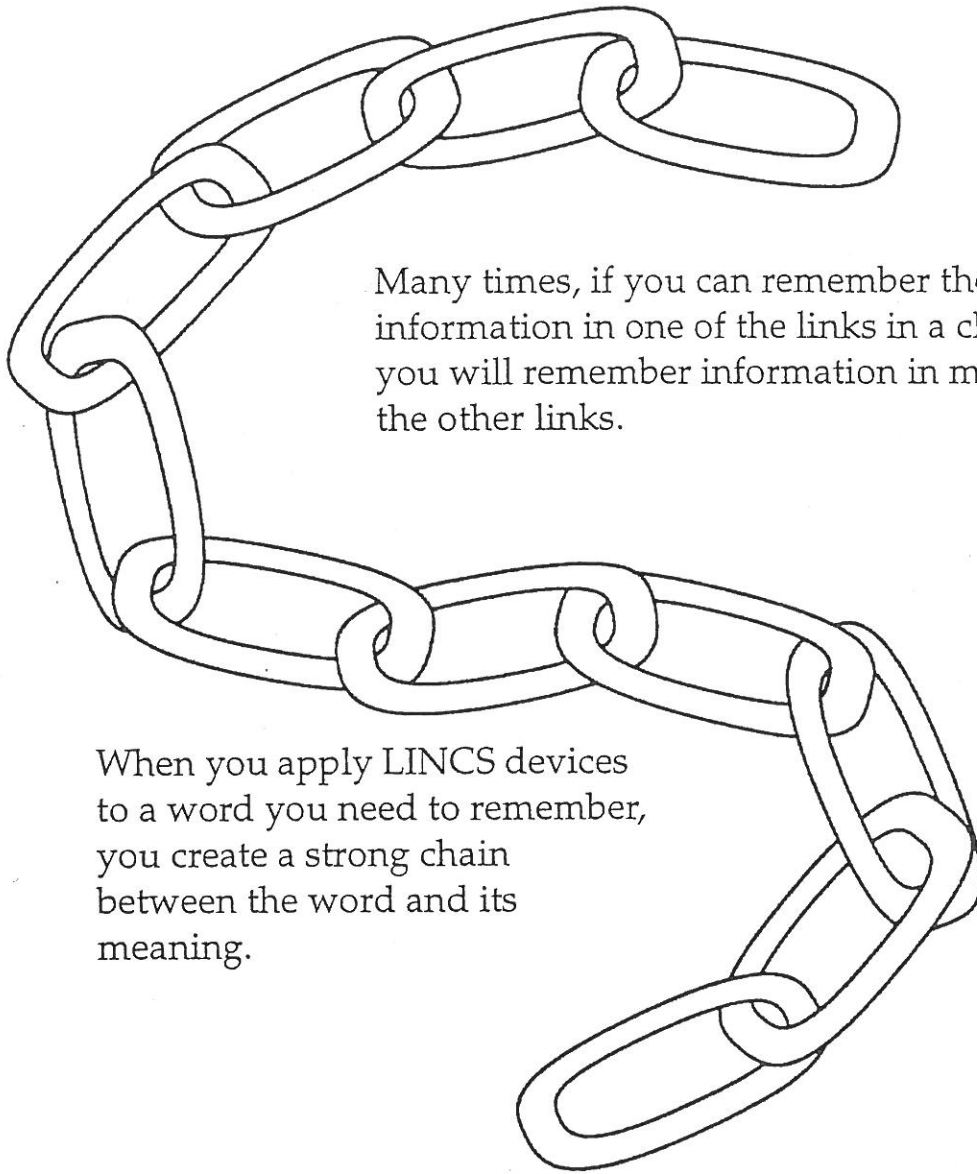
Many times, if you can remember the
information in one of the links in a chain,
you will remember information in many of
the other links.

When you apply LINCS devices
to a word you need to remember,
you create a strong chain
between the word and its
meaning.

The stronger the links between pieces
of information, the easier you can remember
them. The weaker the links, the more
difficulty you'll have remembering them.

# THE LINCS MEMORY CHAIN

Word

Reminding
Word

LINCing
Story

Image
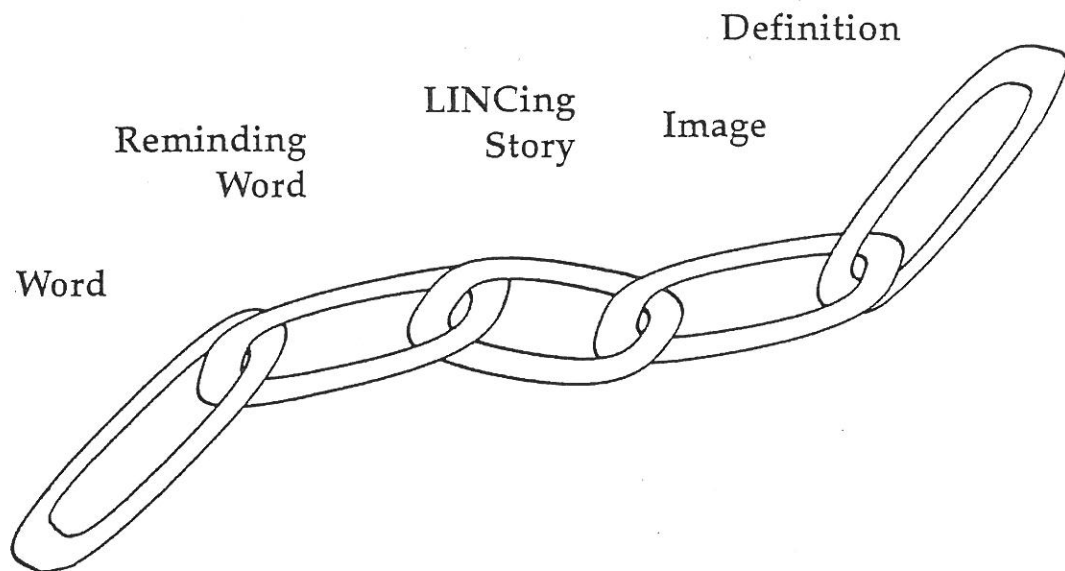
Definition

Using LINCS devices transforms a potentially weak link between a word and its definition into a chain of very strong links.

# THE PURPOSE
# OF THE LINCS STEPS

Guide the teacher to:

- Present the information in the Lincing Table to students in an effective manner.

- Involve students in constructing the Lincing Table.

- Focus student attention on learning.

# THE LINCS STEPS

**L**ist the parts (the term & definition)

**I**dentify a Reminding Word

**N**ote a LINCing Story

**C**reate a LINCing Picture

**S**upervise practice

# STUDENT PRACTICE

■ **Self-test forwards:**
1. Say the new word.
2. Say the Reminding Word.
3. Think of the LINCing Story.
4. Think of the image.
5. Say the meaning of the new word.
6. Check to see if you're correct.

■ **Self-test backwards:**
1. Say the meaning of the new word.
2. Think of the image.
3. Think of the LINCing Story.
4. Think of the Reminding Word.
5. Say the new word.
6. Check to see if you're correct.

# THE CUE-DO-REVIEW SEQUENCE

## CUE
- Name the routine or the LINCS Table.
- Explain benefits of the routine.
- Specify expectations.

## DO
- List the parts.
- Identify a Reminding Word.
- Note a LINCing Story.
- Create a LINCing Picture.
- Supervise practice.

## REVIEW
- Ask questions about the information.
- Ask questions about the process.

# GET READY!

■ Decide when to use the LINCing Routine.

■ Collect materials and ideas.

■ Construct a draft of the LINCS Table.

■ Plan for the presentation.

# Get Set!

■ Choose material.

■ Preview the lesson.

■ Introduce the LINCS Tables.

■ Explain and show how you will CUE the routine.

■ Explain and show how you will DO the routine.

■ Explain and show how you will REVIEW and debrief.

# Go!

- ■ Use the routine explicitly.

- ■ Build thinking skills.

- ■ Build in continuity by referring to LINCS Tables.

- ■ Evaluate your use of the routine.

- ■ Teach students to construct their own LINCS Tables.

- ■ Vary your use of the routine.

# Go!

# The Instructional Sequence

- ■ **We DO It**

- ■ **Ya'll DO It**

- ■ **You DO It**

# Go!

## VARY YOUR USE OF THE ROUTINE

- Fame LINCS

- Gotcha!

- Bright ideas

- Double-dip bonuses

- Shareware LINCS

- LINCS Portfolios

- Student-LINCed-to-students

# STUDENTS WIN!

■ Check whether students are learning what they're supposed to be learning.

■ Check whether students are personally satisfied with what and how they are learning.

■ Check whether students' grades reflect how much they have learned.

# You Win!

- Select a growth target.

- Choose a way to learn.

- Choose a support system.

- Plan for confidence building.

- Debug.

- Maximize the challenge.

- Take ownership of the routine.

# SUGGESTED TRAINING ACTIVITIES

**Activity #1: Group Construction of a LINCing Table**

1. Distribute one blank LINCing Table and background information on a term to everyone in the room. The background information can be a photocopied page from a text book or an encyclopedia. *Be sure to construct your own table for this term in advance.*
2. Tell everyone to read the background information.
3. Once everyone has read the information, construct a LINCing Table for the term as a group. As the table is constructed, fill in a blank overhead transparency of the table and encourage participants to fill in their own table.

**Activity #2: Paired or Group Construction of LINCing Tables**

1. Divide participants into pairs or groups.
2. Give each pair two blank LINCing Tables and the Workshop Exercise on the next page.
3. Instruct participants to use this information to construct a LINCing Table together.
4. Allow 10 minutes for constructing a LINCing Table for each word.
5. Circulate among participants and ask selected pairs to share their LINCing Tables with the whole group by copying their table onto an overhead transparency.

**Activity #3: Individual Construction of a LINCing Table**

1. Give each person one blank LINCing Table.
2. Tell people to construct a LINCing Table for a term from their own content area. (Before the workshop, encourage participants to bring text books from their classes. Encourage them to use the text books at this point.)
3. Allow 10 minutes for constructing LINCing Tables.
4. Divide participants into small groups. Have participants share their tables with the other members of their group.

# WORKSHOP EXERCISE

groat
: A British fourpence piece used from the 14th to 17th century

pityriasis
: skin diseases of humans and animals that result in shedding of flaky scales

suffrutescent
: having a woody stem or base

greenockite
: a yellowish brown to red mineral

chlamydate
: having a mantle as in mollusks

affricate
: A speech sound produced by stopping the breath and releasing it at articulation

# LINCS Tables

**Term** ①     **LINCing Story** ④     **LINCing Picture** ⑤     **Definition** ②

**Reminding Word** ③

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|--------|-----------------|-------------------|--------------|
| ③ Reminding Word | | | |
| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| ③ Reminding Word | | | |
| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| ③ Reminding Word | | | |
| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
| ③ Reminding Word | | | |

List the parts    Identify a Reminding Word    Note a LINCing Story    Create a LINCing Picture    Self-test

# LINCS Tables

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| ③ Reminding Word | | | |

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| ③ Reminding Word | | | |

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| ③ Reminding Word | | | |

| ① Term | ④ LINCing Story | ⑤ LINCing Picture | ② Definition |
|---|---|---|---|
| ③ Reminding Word | | | |

**L**ist the parts   **I**dentify a Reminding Word   **N**ote a LINCing Story   **C**reate a LINCing Picture   **S**elf-test