

## Reading In Content Areas – A Toolkit of Classroom Strategies

### Introduction

The reading comprehension strategies in this toolkit can be used in content area classes to help students make sense out of their textbooks and other reading assignments. Strategies help all students dig deeply into what they read, by encouraging them to make connections, find the big ideas, ask and answer questions, and “read between the lines.”

Content area teachers are the best teachers to do this, because they understand the “nuance” of their own content. They are skilled at learning from reading material in their area, and they can pass on that skill to their students.

The strategies in this toolkit are divided into “before reading,” “during reading,” and “after reading” strategies. Some are whole-group, teacher-led strategies, while others are ones that students learn to use independently while they're reading on their own. We've created a bookmark that students can keep with their books to remind them to use these strategies – see the handouts in the appendix. You can copy our bookmark handout onto colorful card stock paper and cut it into three bookmarks for students to use.

### Where comprehension strategies fit in an overall reading improvement program

Most secondary students benefit from using strategies to think deeply about content area reading. The deeper and more broadly they read, the more they learn, which in turn makes them better content area readers.

Some students also need additional reading support to be able to read both narrative and informational text at grade level. **A comprehensive reading improvement program** in middle and high schools should address these five areas:

1. Provide explicit vocabulary instruction.
2. Provide direct and explicit comprehension strategy instruction.
3. Provide opportunities for extended discussion of text meaning and interpretation.
4. Increase student motivation and engagement in literacy learning.
5. Make available intensive and individualized interventions for struggling readers that can be provided by trained specialists.

See *Improving Adolescent Literacy: Effective Classroom and Intervention Practices*, What Works Clearinghouse IES Practice Guide, for more detail on how to implement these strategies, or our online version of this toolkit: <http://reading-toolkit.wikispaces.com/> These recommendations are also detailed on pp. 35-40 of the appendix.

### **Strategy 1 : Listening to Your Inner Voice – Knowing When You’re Stuck** (during reading)

Knowing when your comprehension is dimming is not always easy. Active readers are constantly monitoring their attention and their comprehension to know when it is essential to get re-focused and re-read.

Activity: Jigsaw Cris Tovani, Chapter 4, *Conversations with Cantos: Tracking Confusion to Its Source*. Handouts: Inner Voice Sheet (p. 3), I’m Stuck (p. 4)

For more information on the jigsaw strategy, see pp. 1-2 of the appendix.

### **Strategy 2: Establish a Purpose for Reading – The “Probable Passage” Strategy** (from Daniels & Zemelman – before reading)

The purpose of this activity is to activate students’ prior knowledge and encourage active thinking about a topic by making predictions before reading. The activity gets students talking in small groups in an organized way. The list of things they hope to discover helps set a purpose for reading.

Here’s how you use it as a whole class activity:

- The teacher chooses a set of 8 to 10 key terms from the reading selection, then creates several headings to categorize those words.
- Students work in small groups to place the terms in the categories (see the example in the handouts)
- Then each small group creates a “gist statement” which they predict will summarize their reading.
- As a final step, each group lists things they *hope to discover* about the lesson based on words they don’t know or questions that came up during their small group work.

Before you use this strategy the first time, model it with a smaller group of words on a different topic. Tell the students what you’re thinking as you go through the strategy - how you decide where to place the terms, how you came up with your gist statement.

Explain to students that if their gist statement doesn’t match the reading completely, it isn’t wrong, it’s just that their predictions were different from the reading.

After students finish reading, go over the “hope to discover” lists. Talk about the questions that were answered by the reading, and those that were not.

Handouts: Probable Passage worksheet p. 5, *Plants Need Mates* p. 6

### **Strategy 3: K-W-L** (before & after reading)

K – What do we know?

W – What do we want to know?

L – What did we learn?

Students can use a three-column chart, labeled K, W and L, to record their brainstormed knowledge about the topic before reading, the questions they want to find out when they read, and the knowledge and insights they have gained after reading. This process helps students read the text carefully, asking questions of the text, themselves, and the author.

This is a great strategy for reading traditional science or social studies textbooks. Many textbooks are great repositories of knowledge, answering many questions about various topics, but the questions they are written to answer are not always explicit. For example, a textbook section on cell division might not clearly state that the important questions are “How do we grow?” and “How do our bodies heal?”

You can help the class focus on which questions will actually be answered by the text passages, and which will require other resources to answer. (3-column master sheet is on p. 7.)

**Strategy 4: Teach “Life Words” as They’re Needed** (before reading)

Systematic, direct vocabulary instruction of “life words” is one of the most important instructional interventions that teachers can use, particularly with low-achieving students (Marzano, Pickering and Pollock). Without sufficient vocabulary knowledge, “reading to learn” is very limited and often frustrating. Direct instruction on words that are critical to new content produces the most powerful learning.

Guide your vocabulary instruction with these generalizations (from *Classroom Instruction that Works*):

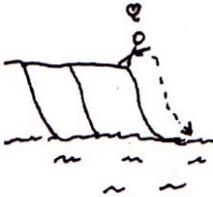
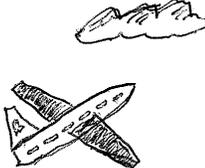
1. Direct instruction in new words enhances learning those words in context.
2. Students must encounter words in context more than once to learn them.
3. One of the best ways to learn a new word is to associate an image with it.

The LINC S approach to learning new words (from SIM: The Vocabulary LINCing Routine,

Ellis) is shown below. It can be used as a whole class activity. The teacher and students analyze the new term together and construct memory devices for it. This kind of pre-reading instruction helps students get more out of their reading.

To use the LINC S approach, scan their reading assignment for words that might be difficult for students. Put those words in the first column. Then, as a class, have them come up with a reminding word, an example or story, and a drawing to go with the first word. Make appropriate suggestions as needed. After they have created the mental images and reminders, then develop together a definition. You might also have them write a sentence that uses the word appropriately. Remember that they will need repeated exposure to new words and repeated opportunities to use them, so this pre-teaching should be followed, after the reading, with more opportunities to read the word in context and use it in writing.

Activity: Try this with the Discover Magazine article on pp. 8-9. See Handouts on pages 10-13 for other vocabulary approaches.

Word	Reminding Word	Example or Story	Picture	Definition
palisades (this example is from Ellis)	pal	My pal, Joe, dove from the cliff into the ocean.		A line of <u>steep cliffs</u> along a <u>river</u> or <u>ocean</u> .
ascend	send (send the paper airplane upward)	The airplane ascended into the clouds.		to move, climb, or go upward

**Strategy 5: A Friendly Reading Guide** (during reading)

Reading guides don't have to be clunky, boring outlines of chapters. You can use a reading guide to stimulate students' prior knowledge, point out text features, personalize the reading with your own stories, ask questions, and give helpful reminders.

Even though this takes time, it really helps students make their way through complex reading. And if you use the same books over several years, the effort really pays off.

Handout: Textbook Feature Analysis pp. 14-16; Study guide examples pp. 17-19.

**Strategy 6: Marking the Text** (during reading)

Teach students the following strategy early in the year: Using sticky notes, mark places in the text where you see a connection to something you already know – use the code **BK** for Background Knowledge. Explain the connection you see, possibly starting with “This reminds me of...”

Also mark places in the lesson where you have questions. Use a ? as the code. Then write the question, perhaps starting with “I wonder...”

A third, important code is a **C** for conclusion, connection or inference. When an important learning occurs to you from the reading, mark it with a C and explain what you think it is. Your explanation could start with “I think that...”

It is important to introduce just one code at a time, and wait until students become good with each code before introducing the next one. Start this strategy early in the year so it becomes a habit with students.

When you teach this strategy to students, model the coding process for them on a small piece of text, perhaps the first page from a chapter. Project the reading through an overhead or document camera. As you read through the first paragraph or two, talk out loud about what you're thinking as you read, and explain how you would mark the text.

Then let students try it with the rest of this short text. Give them feedback as needed. (See the explanation of explicit instruction of strategies at the end of the handout packet.)

This strategy helps students stay engaged in their reading and remember what they read. It draws on several significant reading strategies (connecting to prior knowledge, making inferences, asking questions). The notes become good material for studying or writing assignments.

Activity: p. 20; “Coding Sheet” p. 21

**Strategy 7: Listen for the Big Idea** (during reading)

Students often listen to others read expository text in math, science or social studies classes. Help them learn how to get the most from listening to text. Using a “Pairs Read” strategy, group students with a partner. One student reads some of the text, the other asks clarifying questions. At the end, the partner who listened summarizes the main topic (paraphrases the key concepts) and gives two or three supporting details.

This activity is good for keeping students active. It is especially helpful for auditory and social learners. You can encourage the students who are listening to draw graphic representations of the content, to help interpret the text and get the main ideas onto paper.

**Strategy 8: Re-read** (after reading)

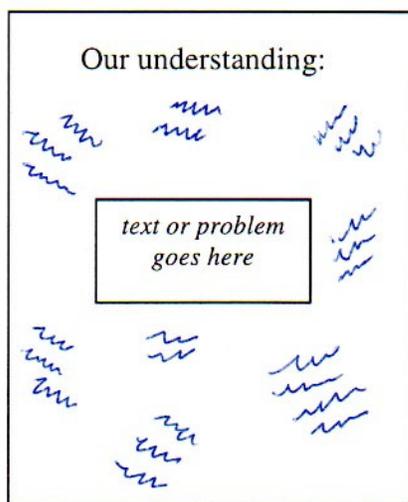
Sometimes students will have to re-read the passage in order to summarize it well. Perhaps the first reading of the section didn't trigger connections to the reader's prior knowledge. Or perhaps their attention wandered and they lost their focus. Sometimes the mental concentration needed to process complex text becomes momentarily overwhelming. When this happens, re-reading the text is very helpful.

Handouts: Madison p. 22, Gettysburg Address pp. 23-25

### Strategy 9: Text on Text (after reading)

This is a group activity for digging into either the narrative in a lesson, along with its examples, or a complex word problem. Sometimes it is called “Collaborative Annotation.”

Give the students the narrative or problem, copied from the textbook and pasted into the middle of a sheet of chart paper. Then as they read together and brainstorm the meaning of the text or problem, each student writes their understanding, one at a time, around the outside of the text, on the chart paper.



Each person’s contribution is read, considered, discussed and valued. The overall result is a group consensus on the meaning in the text or problem. If it’s a problem, students can then begin to suggest strategies (plans) for solving it.

You can have students do this in steps:

- First, have them paraphrase the text passage.
- Then, in a different color, have them write inferences or connections they see in the text.
- In a third color, have them draw arrows connecting something they wrote to something written by someone else, to show a connection between their thoughts.

Handout: Poetry example p. 26

### Strategy 10: Summarize (during and after reading)

The skill of summarizing or getting the gist of a paragraph or page is a skill that should be practiced. Students need learn to identify the key ideas and important examples in their reading. They do this through your modeling and their practicing. Here are three approaches to summarizing:

1) A good approach to use with the whole class as they begin to learn to summarize is the Guided Reading and Summary Procedure (MRA). This approach gives students an opportunity to try creating a summary as a group, before they create summaries on their own. This provides scaffolding for students who haven’t yet mastered this skill.

**Step 1:** Students read a short piece of text, with instructions to remember as much as possible.

**Step 2:** Brainstorming: the teacher records all of the facts that the students remember on the board.

**Step 3:** As factual discrepancies occur, students reread for clarification.

**Step 4:** The teacher guides a process for putting the information into categories with main headings and details.

**Step 5:** Students summarize the important information in a few short sentences.

Handout: Euclid example p. 27

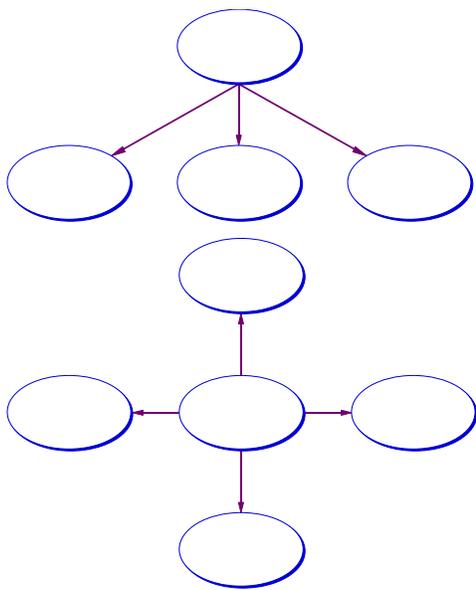
Once students have experienced this guided practice, short selections from a textbook, newspaper or magazine articles are good for practice. Ask them to write the summary sentences first in small groups, then have them try it individually. The summary, in as much as possible, should be written in one’s own words, not the language of the text. The summary should include the author’s main idea or purpose for writing.

2) After students have practiced creating summaries, they can use a two-column chart to summarize one or two main points after every couple of paragraphs. In the left column,

students record details; in the right column, they turn the details into big ideas.

Handout: Two-column details/summary form p. 28.

(3) Simple concept maps are useful for summarizing sections that contain hierarchical content or interconnected content. Give students two blank concept maps that could be used with the content of the reading selection and let them choose which they want to use (or they may find uses for both). You may have to teach them how to use concept mapping – what goes in the circles and what can be written on the arrows.



A good website with lots of different graphic organizers is <http://www.eduplace.com/graphicorganizer/>

### Strategy 11: Re-write (after reading)

Here's a writing strategy that can help students comprehend better what they are reading. Ask students to read a piece of text, and then re-write it from a different point of view, a different "voice." They could take Elizabeth Cady Stanton's Declaration of Sentiments and Resolutions and write it from a contemporary woman's point of view, or a man's point of view. Not only would they have fun with it, but it would give you great insight into how they are understanding the reading. Have them share their writing with each other.

Handout: Seneca Falls Declaration of Sentiments and Resolutions pp. 29-31; student example of airplane problem pp. 32-33

### Strategy 12: Draw It! (after reading)

For a change of pace from re-writing, have your students draw a picture representing the piece of text. Some students are much more visually-oriented, so this might come more naturally for them. The drawing could be an illustration of the action in the story (English language arts) how to solve a problem (math), an event in history (social studies), or a lab experiment (science). It could even be a cartoon with panes depicting the situation.

When you let students re-write or draw what they read, you are allowing them to bring all their creative, right-brain strategies into the effort to understand the piece of text!

Example: Cold Cubes and Hot Cubes p. 34

### Strategy 13: Encourage Reading Outside the Classroom

Keep trade books in your room and make opportunities for students to read them. Trade books are more engaging and more relevant than textbooks, and go into more depth in suitable ways. It's important to include a variety of materials with a wide range of reading levels – students are much more likely to engage in reading if the text appeals to their interest and is at the appropriate reading level for them.

For students who are reading several years behind their current grade, you should consider using trade books matched to their reading levels instead of the class textbook. These can help them learn content, while at the same time supporting the reading intervention they might be receiving outside of class. Students are more likely to improve their reading skills when they read materials at their level.

Some ways to promote student interest in trade books include:

- Share your favorite trade books with your class. Read passages aloud that relate to what you're studying.
- Spend some time each month introducing new books that you've added to your classroom library. Picture books are especially interesting for whole-class book talks.
- Give students who read the same book opportunities to discuss the book.

Work with your school librarian to find a variety of engaging books related to what you're teaching. Media Center staff might enjoy doing some book talks for you.

Content area associations provide lists of good trade books. For science, see NSTA's Outstanding Science Trade Books for Students K-12, at <http://www.nsta.org/publications/ostb>. They publish a new list of great books for students every year, going back to 1996.

For mathematics, see NCTM's *The Wonderful World of Mathematics: A Critically Annotated List of Children's Books in Mathematics*, Second Edition (Stock #673).

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