

3-12 Reading Strategies

3-12

Reading

Strategies

3-12 Reading Strategies

Anticipation Guides (Barton & Heidema, 2000) - Anticipation guides have two columns labeled 'me' and 'text.' Before reading the text, students place a check next to any statement with which they agree. After reading the text, students compare their opinions with information contained in the text. Examples:

An example for a math anticipation guide on statistics might look like the following:

Me	Text	
___	___	1. There are several kinds of averages for a set of data.
___	___	2. The mode is the middle number in a set of data.
___	___	3. Range tells how far apart numbers in a data set can be.
___	___	4. Outliers are always ignored.
___	___	5. Averages are always given as percentages.

An example for a science anticipation guide on matter might look like the following:

Me	Text	
___	___	1. Matter is made up of elements.
___	___	2. An element is made up of many different atoms.
___	___	3. An element is the same thing as a compound.
___	___	4. Most compounds are made up of molecules.
___	___	5. Elements are represented by chemical symbols.

Check Those Facts! (Stephens & Brown, 2005) - This strategy serves a dual purpose: to help students become better judges of internet information and to allow students to explore an area of interest related to the content. The procedures are: (1) each student selects a topic of research, (2) they are directed to use a search engine like Google or Ask Jeeves, (3) students print the articles making sure they have the URL, (4) they seek corroborating articles from two additional internet sources, (5) they compare and contrast the information, (6) they draw conclusions about the validity of their sources, and (7) through panel or roundtable discussions, they share the information.

3-12 Reading Strategies

Circle-Seat-Center (Sadler, 2001) - Have students read the text. Divide the class into three groups: Circle, Seat or Center. The circle group reviews the text with your assistance. The seat group members work alone using study guides. The center group works on a project related to the text. Students rotate to all three groups.

Coding Strategy (Devine, 1998) - Think of a complex reading selection. Students take notes on the text itself while reading alone or in pairs. The note-taking system consists of: (a) colored markers for main ideas, (b) circles for new terms, (c) numbers for sequential events, (d) arrows for related concepts, and (e) question marks for unclear issues. Pairs share with others when finished.

Collaborative Strategic Reading (Klingner & Vaughn, 2000) - Students of various reading and achievement levels work in small groups to assist one another in applying four reading strategies to facilitate their comprehension of content-area text:

1. *Preview*: Prior to reading, students recall what they already know about the topic and predict what the passage might be about.
2. *Click and clunk*: During reading, students monitor comprehension by identifying *clunks*, or difficult words and concepts in a passage, and using fix-up strategies when the text does not make sense.
3. *Get the gist*: During reading, students restate the most important idea in a paragraph or section.
4. *Wrap-up*: After reading, students summarize what has been learned and generate questions that a teacher might ask on a test.

Initially, the teacher presents the strategies to the whole class using modeling, role-playing, and teacher think-alouds. Students record their ideas in learning logs and complete RESPONSE activities.

Concept Collection (Stephens and Brown, 2005) - Students divide their paper into four columns and label them: Familiar Concepts, Evidence, New Concepts, and Evidence. Before reading, students fill out the first column by listing major concepts they already know about the topic. They read the selection, recording evidence that supports concepts in the first column. After reading, they identify new concepts they've developed as a result of reading. They then look for evidence to support these concepts. Developing concepts as opposed to listing facts requires

3-12 Reading Strategies

teacher modeling and substantial guided practice over time. This strategy is a variation of K-W-L for older students.

Familiar Concepts	Evidence	New Concepts	Evidence

Cornell Method of Note Taking (Strong, Silver, Perini, & Tuculescu, 2003) -

Students use the method to summarize main ideas and details from their reading. Steps are: (1) guide students in a survey of the text to identify topics and subtopics, (2) have students convert the topics and subtopics into questions, (3) as students read, have them stop periodically to fill in details and main ideas (some will need this process modeled), (4) on completion of the reading, allow students time to review and refine their notes. Here is an example of the graphic organizer to be used:

QUESTIONS	DETAILS	MAIN IDEA

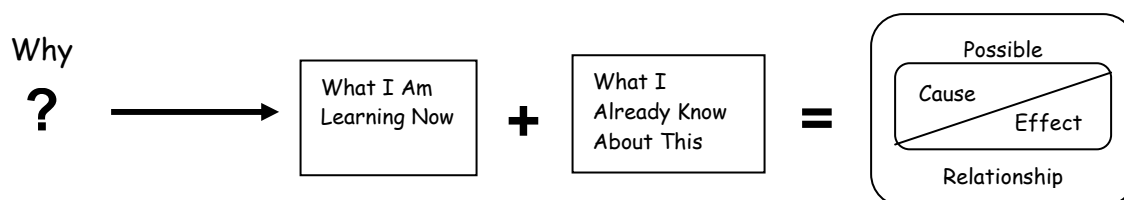
Directed Reading Thinking Activity (DRTA) (Readence, Moore, and Rickelman, 2001) - The DRTA consists of (1) directing the reading-thinking process and (2) fundamental skills training. The first element entails setting purposes for reading, reading to verify those purposes, pausing to evaluate understanding, and then reading again. Three essential questions guide this strategy: *What do you think will happen next, Why do you think so, and How can you prove it?* Select predetermined reading 'points' for students to read (i.e. major shift in the action, the introduction of a new character, the resolution of a conflict). Students complete the three questions that are designed to encourage thoughtful contemplation, reflective discussion, and individual purposes for reading. The second element consists of students reexamining the text to learn to effectively use the skills of word recognition, contextual analysis, and concept development.

Elaborative Interrogation (Buehl, 2001) - This strategy aims to rekindle an inquisitive attitude toward learning by teaching students to ask appropriate *why*

3-12 Reading Strategies

questions. Using this strategy involves the following steps: (1) select a series of factual statements from the reading and present them to the students - model for them appropriate *why* questions to focus their attention on implied cause-effect relationships; (2) present students with the formula for asking why questions (see below); (3) have them work with partners to generate why questions and to brainstorm possible answers; and (4) have them create a series of questions to exchange with another pair (using different reading sections). Emphasize to them that relationships between information are what is important.

Example: FORMULA FOR ANSWERING WHY QUESTIONS



Ethical Choices (Stephens & Brown, 2005) - The strategy is designed to help students take a position after exploring difficult issues. The steps are: (1) the teacher introduces an issue with opposing positions, (2) students discuss a position based on what they know, (3) the teacher provides a packet of reading materials (i.e. balanced accounts), (4) students complete an issues map listing pro and con arguments, and (5) students compare their original stand with the issue map to determine if they have changed their opinions.

Four-Way Reporting and Recording (Strong, Silver, Perini, & Tuculescu, 2003) - This is intended to help students develop a repertoire of note-making strategies so they can make decisions to follow their style or the features of a text. The steps are: (1) put students into groups of '4' in which each group member becomes responsible for a different reading related to the topic, (2) students read the text and select a method of note making, (3) students share notes with a partner (2 x2) and while one shares the other takes notes using a different method of note making (adapt as needed by grade level), (4) as a group of '4' students share all their information until each student has all four quadrants of the sample organizer completed, and (5) provide students with a synthesis task (e.g. students develop criteria for an oral presentation or a speech).

Concept Mapping	Power Notes
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3-12 Reading Strategies

Cornell Method	Listing
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Group Summarizing (Barton & Jordan, 2001) - Class summaries help learners review and remember information while also helping students practice the skill of distinguishing between key and subordinate ideas. Here is how this strategy works: (1) instruct students to survey the text passage to identify major topics for focus, (2) divide the board or chart paper into parts and label the sections based on major topics (establishing a purpose for reading), (3) after students have read the text, ask for volunteers to provide information for each of the categories, and (4) the critical information is then transferred to the appropriate labeled sections of the chart. Examples of the sections for a science unit on electricity might include: description, kinds of electricity, electric circuits, producing electricity, using electricity, and measuring electricity.

Inductive Learning Strategy (Silver, Strong, Perini, 1999) - Teachers select approximately 30 words and phrases from the reading that support the generalizations they expect students to make. In small groups, students group the words into categories based on common attributes. Once students have grouped the words, they must devise a descriptive label for each group that succinctly identifies the common relationship among words. Students use their groupings to make three hypotheses or predictions about the reading. They then read the selection to find out if their hypotheses or predictions were correct or mistaken. Using an organizer, they jot down evidence from the reading that supports or refutes each hypothesis or prediction.

Interactive Reading Guide (Buehl, 2001) - This strategy is a treasure hunt that helps students learn to locate information in textbooks (i.e. especially when they are too difficult for independent reading). Using the strategy involves the following steps: (1) preview reading assignments to determine major information to be learned and to locate possible pitfalls for understanding, (2) construct an interactive reading guide for students to complete with partners or in cooperative groups, (3) divide the passage into segments - those to be read orally by individuals to their groups, those to be read silently by each student, and those less important to be skimmed, and (4) have each group use the guide to report the information. See examples on next page.

3-12 Reading Strategies

INTERACTIVE READING GUIDE FOR BIOLOGY

Water Clarity and Sediments (pages 11-12)

1. Look at the drawing of the fish at the top of the page. Two things are mentioned as "stream trouble-makers." What are these two things?
2. A key word in your reading is "clarity." Student A: Read aloud paragraph 1 to your group. Group: Decide what "water clarity" means and write it below: If you were a fish, what would be the best type of water, according to paragraph 1?
3. Paragraph 2 talks about the color of a stream. Group: Silently skim this paragraph and find two things that can change the color of water in a stream.
4. Paragraph 3 is the main point of your article. Student B: Read paragraph 3 aloud to your group. Group: Decide what effects algae and sediments have on water.
5. Paragraph 4 describes algae. Group: Silently read the paragraph and look for the following information on algae:
 - What kinds of streams are most likely to have algae?
 - What exactly is algae?
 - What color is water that has a lot of algae?
6. Student C: Read paragraph 5 aloud to your group. Group: Tell what kinds of things could be "sediment" in a stream.
7. Group: Read paragraph 6 silently and look for ways sediment gets into streams. Discuss what these ways are and write them here.
8. Group: Silently skim paragraphs 7, 8, and 9. If you were a fish, which source of sediment sounds the worst to you?
9. Sediment and algae make water cloudy, which cause trouble for fish. The next paragraphs tell five reasons why. Student A: Silently read paragraphs 10 and 11. Student B: Silently read paragraphs 12 and 13. Student C: Silently read paragraph 14. Share the five reasons why cloudy water is bad for fish and write them below in your own words.

Developed by Doug Buehl & S. Krauskopf, 1998.
Madison East High School. Madison. WI, USA.

INTERACTIVE READING GUIDE FOR HISTORY

Section A: Introduction to Ellis Island (pages 1-2) 1

1. Class: Listen and follow along in the article as I read this passage to you. Then based on what you remember, respond to the questions below. If you need to, you can locate information from the article:
 - Ellis Island is located in what city?
 - What famous national landmark can be seen from Ellis Island?
 - List four reasons why immigrants came to the United States that were mentioned.

Section B: Early Immigration to the United States (pages 2-3)

1. Partners: Read paragraph 1 silently and decide on an answer to the following question:
 - Who were the first immigrants to the United States?
2. Partner X: Read aloud paragraph 2. Partner Y: Listen and decide how to answer the following questions:
 - Were the early immigrants to the United States regarded as a good thing?
 - Why or why not?
3. Partner Y: Read aloud paragraph 3. Partner X: Listen and decide how to answer the following questions:
 - Did the government keep very close track of immigrants in the early days?
 - What clues in the article helped you figure this out?
4. Partners: Read paragraphs 4, 5, & 6 silently. List four things that attracted people to the United States.
5. Partner X: Read paragraphs 7 & 8 out loud. Partner Y: Listen and decide how to answer:
 - What are some of the nationalities of the new immigrants?
 - What was the attitude of many Americans to the new immigrants?

Developed by Doug Buehl & P. McDonald, 1999,
Madison East High School, Madison, WI, USA.

Infofiction (Stephens & Brown, 2005) - Students read novels that have a significant informational dimension (i.e. novels that combine fact and fiction). Steps to follow: (1) while reading the novel, students identify the informational content in the book, (2) students verify information from the book by checking

3-12 Reading Strategies

facts in reference books or on the Internet, and (3) the teacher and students plan further investigation of the information.

BOOK TITLE AND AUTHOR

FACTUAL INFORMATION	PAGE #	VERIFICATION SOURCE

Investigative Teams (Stephens & Brown, 2000) - This strategy resembles literature circles but is used for non-fiction or info-fiction. Groups of students are given a different book on a particular topic or theme. Roles are assigned (e.g. always an investigative reporter and then any of the following: headline writer, graphic artist, editorial consultant, critic, travel reporter, ad designer, researcher, and social columnist). The teacher and class establish a calendar for reading and responding, for meeting in their groups for discussion, and for rotating roles.

Key Concept Strategy (Stephens & Brown, 2005) - This strategy was developed to help students understand key concepts in mathematics and to improve their comprehension of mathematics texts. The steps include: (1) the teacher records a phrase identifying the lesson focus, (2) the key concept is described or explained by the teacher or by students after reading a section of the text, (3) students write a concise summary of the key concept in the grid, (4) students summarize any properties/ rules/ processes essential for understanding the key concept, (5) the teacher helps the students complete the examples/ non-examples section, and (6) students complete a practice problem.

LESSON FOCUS

KEY CONCEPT	PROPERTIES/ RULES/ PROCESSES
EXAMPLES/ NONEXAMPLES	PRACTICE PROBLEM

Kindling (Strong, Silver, Perini, & Tuculescu, 2003) - This strategy uses provocative questions to help students generate informal ideas and activate prior knowledge. The ideas are fleshed out through writing and peer collaboration to become the foundation for active reading. The steps are: (1) pose an open-ended question before students read, (2) encourage students to think about what they might already know and what they will need to know to answer the question, (3) refer

3-12 Reading Strategies

students to their journals to sketch their thoughts, have students meet in pairs or small groups to share their thoughts and record them on chart paper, and (4) have students read the given text.

K-N-W-S (K-W-L for math word problems) (Barton & Heidema, 2000) - Students use a graphic organizer similar to the K-W-L chart (i.e. what I know, what I want to know, what I learned) except that the columns for math reading are: K or what facts do I KNOW from the information in the problem, N or which information do I NOT need from the problem, W or what does the problem ask me to find, and S or what strategy/ operation/ tools/ will I use to SOLVE the problem.

What I know	Information I do not need	What do I need to find	What strategy will I use

L. E.T.S. Connect (Billmeyer, 2004) - The steps are: (1) select a text to read aloud, (2) review with students the importance of thinking about what they are learning before, during, and after reading, (3) explain what the acronym L.E.T.S. stands for (L = listen to the selection, E = engage with the content, T = think about the characteristics of the genre, S = say something to your partner about your thoughts), (4) organize students into pairs or trios, (5) read the selection aloud to the students and at various predetermined times stop reading and announce "L.E.T.S. connect." As a final connection, students create a summary statement about the entire selection.

Listservs, Message Boards, DVD-ROMS/ CD-ROMS (Stephens & Brown, 2005)- Listservs are electronic discussion groups organized around a common interest of the members. Students participate through e-mail. For example, Book Report is a listserv for students to share their reactions to books they have read. There are also listservs for content areas like math, science, and social studies so students can verify the information they might read in their books. While listserv messages arrive via e-mail, message boards are web based and usually hosted by a third party. Participants must go to the message board rather than having messages arrive in their e-mail boxes. Membership is interest-driven so the discussions are focused on specific topics. Content teachers can supplement their classroom resources with content-appropriate DVD-ROMS or CD-ROMS (the former can hold

3-12 Reading Strategies

as much information as an entire library while the latter can replace entire books). Both can be resources focused on particular topics - presented in multimedia fashion. An original text may be narrated and include still photos, background music, film clips, audio clips, graphics, and automated cartoons. One of the benefits of these resources is that it provides interactive reading and writing opportunities.

Learning Logs (Reiss, 2005) - These are structured content journals based on reading assignments from the textbook.

TEXT PAGES	WHAT I UNDERSTOOD	DIFFICULT VOCABULARY	QUESTIONS I HAVE

Math Notes Strategy (Silver, String, and Perini, 1999) - Present students with a word problem that they must solve. Have them use the 'window' to help them take notes and deepen their understanding. They are to break down the problem in this sequence:

- In the 'facts' box - they identify the facts of the problem and identify what is missing.
- In the 'question' box, they isolate the main question that the problem is asking, and they search for hidden questions and assumptions.
- In the 'diagram' box, they visualize and draw the problem as they see it.
- In the 'steps' box, they determine what steps will solve the problem.

See example on following page.

3-12 Reading Strategies

Example: Math Notes Strategy

Math Notes	
<i>The Facts</i> What are the facts? What is missing?	<i>The Steps</i> What steps can we take to solve the problem?
<i>The Question</i> What question(s) need to be answered? Are there any hidden questions that need to be answered?	<i>The Diagram</i> How can we represent the problem visually?
<u>Now use the back of this page to solve the problem.</u>	

Math Reading Keys (Buehl, 2001) - Students must learn that reading math texts is different than reading other kinds of textbooks (i.e. math language is conceptually laden but precise and compact and students often glide over the text thinking or looking for the problems to solve). Using this strategy involves the following steps: (1) model how to read a challenging section of text on an overhead by thinking aloud and highlighting *knowledge gaps* -- spots where the author thinks readers have sufficient knowledge and therefore need no further explanation; (2) point out how your think aloud followed the steps in the Math Reading Keys Bookmark (see the example below). Then pair students to read portions of the text during class time; (3) encourage students to compile their own definitions of key terms in a notebook, and (4) have students create a classroom dictionary of key math terms. See example on next page.

3-12 Reading Strategies

MATH READING KEYS BOOKMARK	TRANSLATING MATH TERMS INTO ENGLISH												
<ol style="list-style-type: none">1. Read carefully to make sure each sentence makes sense.2. Summarize what you read in your own words.3. When you encounter tough words think of easier words that mean that same thing and substitute.4. Discuss with a partner what you read<ol style="list-style-type: none">a. to make sure you understand, andb. to clear up things you don't understand.5. Look for things the author assumes you already know, and things you have learned in math before.6. Read with a pencil<ol style="list-style-type: none">a. to work any examples provided, andb. reread each section after working the examples.7. Write and store your own definitions for key terms in a notebook.	<p>Decimal Notation</p> <p>The way we write numbers, using 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Each place in the number is a power of ten.</p> <table><tr><td>hundred thousands</td><td>ten thousands</td><td>thousands</td><td>hundreds</td><td>tens</td><td>ones</td></tr><tr><td>7</td><td>0</td><td>9</td><td>,</td><td>8</td><td>7 3</td></tr></table> <p>Example:</p>	hundred thousands	ten thousands	thousands	hundreds	tens	ones	7	0	9	,	8	7 3
hundred thousands	ten thousands	thousands	hundreds	tens	ones								
7	0	9	,	8	7 3								

Narrow Reading Strategy (Krashen, 1981) - Narrow reading is reading on the same topic over the course of a number of texts. Teachers can collect stories on an engaging topic or theme, reading in a single genre (e.g. a series with recurring characters and situations, or texts from a single author). The Internet also provides a vast amount of authentic texts available on almost any topic. From a reading perspective, focusing on texts on a recurrent topic gives learners the chance to practice reading more fluently and quickly. From a vocabulary perspective, multiple exposures to recurrent words facilitate vocabulary learning.

Opinion Guide (Stephens & Brown, 2005) - Opinion guides provides students with a series of statements to respond to from two different perspectives: their own and that of the author. The teacher creates an opinion guide by writing three to seven statements from the reading material. Each statement is preceded by two columns: one labeled "you" and the other "author." The students read and mark whether they agree or not. While they read the text, they search for ideas to help them understand the author's opinions and then, after reading, mark whether they think the author agreed or disagreed with the statements. In small groups or as a whole class, students discuss each statement, comparing the opinions of all.

Paired Guided Reading (Stephens &- Brown, 2000) - The teacher directs the students to read a certain amount of text with a specific purpose (e.g. read the first four paragraphs to find three major causes of pollution). When finished reading, students record on sticky notes what they remember. In pairs, they

3-12 Reading Strategies

compare and discuss their notes, grouping the ones that are similar. They monitor themselves by asking, "*Did we leave out anything important?*" "*Was there anything we didn't understand?*" Then they reread the material as they check, add to, or change their notes. Students repeat the process until done reading and finally arrange their notes into a graphic organizer that demonstrates the relationship of the notes.

Pen-in-Hand Strategy (Stephens and Brown, 2005) - The following continuum of writing-reading interactions is based on the degree of student involvement:

underlining margin notes graphic organizers note taking outlining summarizing paraphrasing précis writing									
Low					High				

The Pen-in-Hand strategy focuses on two of these types of interactions to help students engage in the construction of meaning when reading textbooks: (1) underlining/ highlighting - provide students with photocopies of text pages or transparencies they can use on top of text pages and then model for them how to interact with text and (2) margin notes - provide students with sticky notes and then model writing notes in the margins of the texts (i.e. reactions, associations, questions, applications, examples, drawings, or symbols). In so doing, the strategy provides an 'entry point' of text interaction which is useful for ELL.

Peer Reading Strategy (Silver, Strong, and Perini, 1999) - Select a reading and break it up into manageable sections. For each section, create a question or a set of questions that will require students to summarize the section. Break up students into pairs. Distribute the reading and the summarizing questions to all students. Ask students to read the first section, mark their text, and then engage in coaching partnerships (reader A puts his reading aside while the coach asks the summarizing questions and coaches reader A to a more complete answer using her marked copy). Have students reverse roles for each of the remaining sections of the text. When done, ask students to use the summarizing questions and notes to create a summary collaboratively. Over time, gradually model and coach students through the process of identifying their own summarizing questions and using their skills to summarize readings and conduct research.

3-12 Reading Strategies

Proposition/Support Outlines (Billmeyer and Barton, 1998) - In large-group sharing, introduce a blank 'proposition support' outline on an overhead and model for students how support for a proposition (related to your content) could be categorized as facts, statistics, examples, expert authority, logic, or reasoning. Assign a text passage that follows the same framework and have pairs of students complete the outline as they analyze the author's arguments. This is an excellent guide for independent research. See example of the graphic organizer on the next page.

Example: Proposition / Support Outline

Proposition/Support	
Topic	
Proposition	1. Facts
	2. Statistics
Support	3. Examples
	4. Expert Authority
	5. Logic and Reasoning

QAR (question-answer relationship) Strategy (Stephens & Brown, 2000) -

Teacher gives students four types of questions classified as follows:

1. Right There! (The answer is found directly in the text. The words in the question can usually be found in the same sentence with the answer).
2. Think and Search! (The answer is in the text but the words are not in the same sentence. You must read the text, look for ideas that you can put together, and think about what the author is saying).
3. You and the Author! (The author gave you some ideas and made you think, but you must figure out what you know and use it to answer the question).
4. On Your Own! (You must apply what you know and what you have learned to answer the question).

Teacher models some examples and then students apply QAR while reading.

3-12 Reading Strategies

Q-SPACE (Strong, Silver, Perini, & Tuculescu, 2003) - This is an acronym that stands for the following steps: (1) Question - pose a content-specific question for students to answer, (2) Silence - remain silent to allow time for students to generate ideas, (3) Probe - respond to answers with questions about the process of answering (e.g. How did you arrive at that answer?), (4) Accept - communicate to students the positive aspects of their answers, (5) Clarify - aid students in making their answers clearer (e.g. when the answer is incorrect, state the question for which it is an answer), (6) Elaborate - encourage students to look past answers to see where they may lead (e.g. generalizations).

Questioning the Author (QtA) (Beck, McKeown, Hamilton, & Kucan, 1998) - This strategy is designed to assist students in their efforts to understand text as they read, especially for Social Studies or Language Arts texts. Select passages based on important concepts, develop queries that will prompt discussion and build understanding, instruct students to read the passage, facilitate a query-driven discussion about the passage, giving students the opportunity to grapple with ideas in small groups first, and be sure to model the strategy yourself by thinking aloud how you might grapple with ideas to build understanding around a passage.

Question Menu Strategy (Silver, Strong, and Perini, 1999) - Select an appropriate text. Using the question stem menu, establish at least one question for each level of understanding. Have students review the questions before reading. As they read, they are to collect the information needed to generate a response for each question. Allow students to meet with other students to discuss their responses. As they become more competent, foster independence by encouraging them to ask their own style-based questions as a way to expose the multiple layers of a reading. See example on the following page.

3-12 Reading Strategies

Example: Question Menu Strategies

<p>Mastery questions ask students to:</p> <p>Focus on Reading Facts:</p> <ul style="list-style-type: none"> Who was involved? Where did it take place? When did it occur? What happened? How did it occur? <p>Supply information based on observation:</p> <ul style="list-style-type: none"> What did you observe? What is wrong with this? How would you correct this? Can you describe the data? <p>Establish procedures on sequence:</p> <ul style="list-style-type: none"> What are the steps? How would you go about doing this? What comes first? Next? What is the correct order for this? 	<p>Interpersonal questions ask students to:</p> <p>Empathize and describe feelings:</p> <ul style="list-style-type: none"> How would you feel if _____ happened to you? How do you think _____ felt? Can you describe your feelings? <p>Value and appreciate:</p> <ul style="list-style-type: none"> Why is _____ important to you? What's the value of _____? What decision would you make? <p>Explore human interest problems:</p> <ul style="list-style-type: none"> How would you advise or console _____? What is the issue facing _____? What would you do about it? How would you help each side come to agreement? 	<p>Understanding questions ask students to:</p> <p>Focus on making connections:</p> <ul style="list-style-type: none"> What are the important similarities and differences? What is the cause? What is the effect? How are the parts connected? <p>Make inferences and interpret:</p> <ul style="list-style-type: none"> Yes, but why? How would you explain _____? Can you prove it? What can you conclude? What experience do you have to support your position? <p>Focus on understanding meaning:</p> <ul style="list-style-type: none"> What are the hidden assumptions? What does this prove? What have you discovered? 	<p>Self-Expression questions ask students to:</p> <p>Rethink their ideas:</p> <ul style="list-style-type: none"> What come to mind when you think of _____? How is _____ like _____? <p>Develop images, hypothesis, and predictions:</p> <ul style="list-style-type: none"> What would happen if _____? Can you imagine _____? What would it look like? What would it be like? <p>Focus on alternatives and original solutions:</p> <ul style="list-style-type: none"> How many possible ways can you _____? What is another way to do this? Is there a better way to design _____? <p>Think metaphorically and creatively:</p> <ul style="list-style-type: none"> How is _____ like _____? Can you create a poem, icon or skit that represents this?
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RAFT Strategy (Billmeyer and Barton, 1998) - The RAFT strategy enhances understanding of informational text by encouraging creative thinking and reflection. RAFT is an acronym that stands for: Role of the writer. What is the writer's role: reporter, observer, eyewitness, Audience. Who will be reading this writing: the teacher, other students, people in the community, an editor, Format. What is the best way to present this writing: in a letter, an article, a report, a poem, Topic. Who or what is the subject of this writing: a famous mathematician, a reaction to a specific event? To use this strategy, analyze the information you want students to learn from a reading. Brainstorm possible roles students could assume in their writing. Decide who the audience will be and determine the format for the writing. After students have read, explain RAFT and list the role, audience, format, and topic for the writing. All students could do the same or you could offer choices. See examples of RAFT assignments.

3-12 Reading Strategies

Role	Audience	Format	Topic
Newspaper Reporter	Readers in the 1870s	Obituary	Qualities of General Custer
Lawyer	U.S. Supreme Court	Appeal Search	Dred Scott Decision
Abraham Lincoln	Dear Abby	Advice Column	Problems with his generals
Mike Royko	Public	News Column	Capital punishment
Frontier Woman	Self	Diary	Hardships in the West
Chemist	Chemical company	Instructions	Combinations to avoid
Plant	Sun	Thank-you note	Sun's role in plant's growth
Scientist	Charles Darwin	Letter	Refute a point in evolution theory
Square Root	Whole Humber	Love letter	Explain the relationship
Repeating Decimal	Set of Rational Numbers	Petition	Prove you belong to this set
Lungs	Cigarettes	Complaint	Effects of smoking
Huck Finn	Jim	Letter	What I learned during the trip
Joseph Stalin	George Orwell	Letter	Reactions to <i>Animal Farm</i>
Comma	9 th grade students	Complaint	How it is misused

Reading For Meaning (Strong, Silver, Perini, & Tuculescu, 2003) - This strategy is intended to help students with the difficulties they may have in getting meaning (i.e. literal meaning, seeing important themes or ideas, ambiguous or symbolic language, and personally challenging texts). The steps are: (1) create statements keyed to important information in the text, (2) review the purpose and goals of the strategy with students by explaining the use of the organizer (example on following page), (3) students read the passage to collect evidence to support or refute the statements, (4) students form small groups to discuss the statements and share responses, and (5) students apply what they've learned to a writing task. See example on following page.

3-12 Reading Strategies

For Cherokees, moving west of the Mississippi is preferable to being oppressed in their homeland. <input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<u>SUPPORT</u>	<u>REFUTE</u> "We wish to remain in the land of our fathers." "If we are compelled to leave, we see nothing but ruin before us."
Relocation is an inhumane policy. <input type="checkbox"/> Agree <input type="checkbox"/> Disagree	Cherokees would come into conflict with other tribes west of the Mississippi. The region was badly supplied with food and water, and they were forced to go against their will.	

Read Three Times (Sadler, 2001) - This is a mathematics strategy used in solving word and logic problems. Steps: (1) students read through problem quickly, (2) they list the words they do not understand, and (3) they try to answer questions (i.e. What is the problem asking us to do, What do we need to know, What is unnecessary information, What materials do we need, What math operation(s) will we use? Class members review their responses to the questions.

Reading- and Writing- To Learn Strategy - Think of reading selections that would go well with the types of journals which appear on the next page. Afterwards, have students share their ideas. Select the type of journal which aligns with specific subject areas (e.g. double entry for literature, problem solution for math, metacognitive for science, speculation for social studies).

Examples: Reading- and Writing- To Learn Journals

Double Entry Journal	Divide a sheet of paper in half. On the left side, copy a quotation or passage from the text. On the right side of the paper, you may respond, question, make personal connections, evaluate, reflect, analyze and interpret. In other words, the left column is for note taking from the text and the right column is for your own note making.
Problem Solution Journal	Identify a problem, brainstorm possible alternatives, choose a probable solution, anticipate stumbling blocks, and propose arguments while writing in favor of a proposed solution.
Metacognitive Journal	Divide a paper in half. On the left side of the paper, record "What I learned." On the right side of the paper, record "How I came to learn it."
Synthesis Journal	Divide your paper into sections. Record "What I did", "What I Learned", and "How I Can Use It."

3-12 Reading Strategies

Speculation About Effects Journal	Divide paper in half. On the left side, record "What happened." On the right side, record "What might/ should happen as a result of this."
Reflective Journal	Divide paper into sections. Record "What happened," "How I felt," and "What I learned," <u>or</u> "What I did," "What I learned," "What questions do I still have," "What surprises did I experience," and "Overall Response."

REAP (Allen, 2004)- REAP is an acronym for *read, encode, annotate, & ponder*.

Explain or model the following for students: read on you own, encode the text by putting the gist of what you read in your own words, annotate the text by writing down the main ideas and the author's message, and ponder what you read by thinking and talking with others in order to make personal connections, develop questions about the topic, and/ or connect this reading to other reading.

Read text. Jot down title and author.	Encode the text. Put main ideas in own words.
Annotate text. Write a summarizing statement.	Ponder text. Why did the author write the text?

Reciprocal Teaching Strategy (Billmeyer & Barton, 1998) - This is a four-step procedure (summarize, question, clarify, predict) which makes the reading process interactive between the teacher and the text. Initially, the teacher works with small groups of students to model the strategy - the teacher reads a paragraph or two and then summarizes. The teacher then poses questions for discussion, models how to clarify the meaning of the text, and asks students to make predictions about what happens next. After this modeling, it is time for students to reciprocate. A designated student-leader assumes the role of teacher and repeats the process. One by one, students take responsibility for the active, attentive-read-think process of critical readers. The leadership role is reciprocal, turning over responsibility to the students, and in reciprocating, students eventually internalize the reading process.

3-12 Reading Strategies

ReQuest (Readence, Moore, & Rickelman, 2001) - ReQuest is an abbreviation of reciprocal questioning, a strategy intended to help students (1) formulate their own questions about the text they are reading, (2) develop an active inquiring attitude toward reading, (3) acquire purposes for reading, and (4) develop independent comprehension abilities. ReQuest involves students and teacher silently reading portions of text and taking turns asking and answering questions concerning that material. It is the reciprocal nature of the questioning sequence that differentiates ReQuest from teacher-directed questioning strategies and provides the format for students' active involvement.

ROW (Stephens & Brown, 2005) - ROW stands for read/ organize/ write and is designed to help students with understanding different types of expository text. The steps include: (1) the teacher presents an expository text pattern using short, clear examples for the class to read, (2) the class develops a working definition of the organizational pattern and a graphic organizer of that represents it (e.g. sequence/ direction; listing/ description; definition/ explanation; comparison/ contrast; problem/ solution; cause/ effect), and (3) the students then write a selection using the text pattern.

Save the Last Word for Me (Buehl, 2001) - This strategy helps students to reflect on what they read and is especially useful with material that may elicit differing opinions. Reluctant speakers have an opportunity to be in small group settings with time to rehearse. Using the strategy involves the following steps: (1) have students locate five statements that they find interesting while they read, (2) distribute index cards for students to write their statements on - they write comments about the statements on the other side, (3) divide the students into groups of four and have each student share their statements one at a time - they also help their team members locate the statement in the text, (4) comments can not be shared until all group members give their reactions - this gives the initial student *the last word*.

Scored Discussion Strategy (Billmeyer & Barton, 1998) - This strategy gives students the opportunity to practice and evaluate effective discussion skills. A small group (6 to 8) of students carries on a reading related discussion while classmates listen. Meanwhile, the teacher and the rest of the class observe the small group discussion and score individual contributions to the discussion. Students are awarded points for contributing relevant information, using evidence, asking questions, making analogies, and encouraging others. Negative points are assigned for interruptions, irrelevant comments, and personal attacks. At the conclusion, the feedback is provided to the discussion group members.

3-12 Reading Strategies

Discussion Score Sheet

Student _____

Class

Positive/Productive Behavior	Points	Non-Productive Behaviors	Points
(1) 1. Offers his / her position on a topic	_____ x (1) = _____	(-2) 1. Not paying attention or distracting others	_____ x (-2) = _____
(1) 2. Makes a relevant comment	_____ x (1) = _____	(-2) 2. Interruption	_____ x (-2) = _____
(3) 3. Uses evidence to support position	_____ x (3) = _____	(-1) 3. Irrelevant comment	_____ x (-1) = _____
(2) 4. Points out contradictions in another person's statements	_____ x (2) = _____	(-3) 4. Monopolizing	_____ x (-3) = _____
(2) 5. Recognizes when another person makes an irrelevant comment	_____ x (2) = _____	(-3) 5. Personal attack	_____ x (-3) = _____
(3) 6. Develops an analogy	_____ x (3) = _____	Total Points:	
(1) 7. Asks a clarifying question	_____ x (1) = _____	<i>Positive / Productive Behavior:</i>	_____
(3) 8. Uses active listening skills (e.g. rephrases or restates what another student says before commenting)	_____ x (3) = _____	<i>Non-Productive Behavior:</i>	_____
		<i>Overall Total:</i>	_____
		<i>Grade:</i>	_____

Scintillating Sentences and Quizzical Quotes (Stephens and Brown, 2000) -

While reading (in pairs), students find a sentence that represents a significant idea, illustrates a point of view, or has special meaning for understanding content as well as a sentence that they don't understand or they find confusing. These are recorded on strips or chart paper along with the author, title, page number, and students' initials. The papers are sent around the room so the class members can write their comments.

Science Connection Overview (Buehl, 2001) - This is a pre-reading strategy that

3-12 Reading Strategies

helps students connect possible relationships between the science in their texts and their understandings of the world around them. Using the strategy involves the following steps: (1) distribute a blank form (see example that follows) and model for students on an overhead how to skim a portion of text and think aloud about things mentioned with which you are familiar (avoid technical vocabulary), (2) have students work with partners to survey the rest of the chapter, (3) if the chapter has a summary, direct students to read it, asking them to identify key topics that seem to be the focus of the chapter, (4) ask students to generate personal questions about the topic (i.e. you could model the kinds of questions people normally have about science), (5) have students complete the "How is it organized?" section of the overview to become familiar with information to be found in the chapter, (6) have students read the chapter using the overview to remind them what the chapter is about and (7) have students complete 3x5 index cards for technical vocabulary (i.e. they need to 'translate' the terms into understandable language).

What's familiar?	<p>What's the Connection? Skim and survey the chapter for things that are familiar and that connect with your life or world. List them below:</p> <ul style="list-style-type: none"> • mushrooms • mold on spoiled food • spores • yeasts • plant rusts • fungi on rotting plants • lichens • penicillin • Dutch Elm disease
What topics are covered?	<p>Read the Summary. What topic areas seem to be the most important?</p> <ul style="list-style-type: none"> • How they look or are structured • How they reproduce • How they feed and stay alive
What questions do you have?	<p>Questions of Interest. What questions do you have about this material that may be answered in the chapter?</p> <ul style="list-style-type: none"> • Why do mushrooms grow in damp places? • Why does food get moldy when it spoils? • Why do they put yeast in bread doughs? • Why are some mushrooms poisonous? • How can you tell which mushrooms are poisonous and which are safe? • What do fungi eat? • Does the medicine penicillin come from a fungus?
How is it organized?	<p>Chapter Organization: What categories of information are provided in this chapter?</p> <ul style="list-style-type: none"> • Structure of Fungi • Nutrition • Reproduction • Variety of Fungi: molds imperfect yeasts mushrooms lichens
Translate	<p>Read and Translate: Use 3X5 cards for vocabulary.</p>

3-12 Reading Strategies

Skimming & Scanning (Allen, 2004) - This strategy requires a reader to look quickly and find the most important features and information in a text. Follow these steps: (1) give students a reading assignment from a textbook; (2) ask students to work in pairs to skim and scan the reading by looking at the title, the headings and subheadings, the visuals, the boldfaced words, and the first and last paragraphs in order to make predictions about what they think the reading is about; (3) give the students a three-columned form with *first impressions*, *fast facts* & *final thoughts* and as a whole class have them fill in the *first impressions* column; (4) ask students to skim and scan again writing down several *facts* they discover in this limited reading; and (5) ask students to look at the two previous columns and determine what they believe will be the most important points and then have them read the text to look for these *final thoughts*.

<i>First impressions</i>	<i>Fast facts</i>	<i>Final thoughts</i>

SMART (Self-Monitoring Approach to Reading and Thinking) (Buehl, 2001) - This strategy helps students learn to carry on an internal monologue while they read (i.e. like proficient readers naturally do). Using this meta-cognitive strategy involves the following steps: (1) select a challenging passage of about four or five paragraphs and enlarge it on an overhead in order to model the process of thinking aloud while reading, (2) place a check mark next to sentences or paragraphs you understand immediately and a question mark next to those you don't, (3) after reading the passage, model the *READ SMART* protocol (see following page), and (4) have them practice the whole process on their own or with partners.

3-12 Reading Strategies

READ SMART!

1. **READ.** Read a section of the text. Using a pencil, lightly place a check mark next to each paragraph that you understand and a question mark next to each paragraph that contains something you do not understand.
2. **SELF-TRANSLATE.** At the end of each section, stop and explain to yourself, in your own words or language, what you read.
3. **TROUBLESHOOT.** Go back to each (?) paragraph and see if you can now make sense of the paragraph.
 - Re-read the trouble spot to see it now makes sense. If it still does not make sense:
 - Pinpoint a problem by figuring out why you are having trouble: Is it a difficult word or unfamiliar vocabulary?, Is it a difficult sentence or confusing language?, Is it a subject about which you know very little?
 - Try a Fix-Up Strategy: Use the glossary or some other vocabulary aid, look over pictures or graphs to assist with meaning, examine other parts of the chapter (summary, review section, diagrams) to assist with meaning.
 - Explain to yourself exactly what you do not understand or what confuses you.
 - Get help. Ask the teacher or a classmate.

SPAWN (Martin, Martin & O'Brien, 1984) - SPAWN stands for special powers, problem solving, alternative viewpoints, what if, and next. This strategy encourages students to examine complex issues and extend thinking related to content reading. After reading a text/ researching a topic/ working with a concept, students work collaboratively on one or more writing tasks in each of the above five areas. Examples include: (1) You have been granted special powers. How is this situation different because of the way you choose to use your powers?, (2) How would you solve this problem differently than the way presented?, (3) You are a journalist interviewing different people on this topic - what kinds of viewpoints are you hearing?, (4) What if the events had been different?, and (5) What do you think should happen next?

SQ3R (Holdaway, 1980) - This strategy is best used with non-fiction and textbooks. The steps are: (1) Survey-Preview or note the format of the book and

3-12 Reading Strategies

discuss students' of previous knowledge the topic, (2) Question or make predictions and pose questions inspired by the preview, (3) Read through a shared reading format, (4) Recite or answer and discuss questions generated earlier, and (5) Review or state the main idea, recalling and revisiting the text to assure comprehension.

Story Grammar/Maps (Billmeyer and Barton, 1998) - Story grammar identifies the story's structure, literary elements, and their relationships to one another. A story map is a visual representation of the story structure. Students fill them out in as they read in small groups and then share and discuss them as a class.

Title: _____		Climax:	
Main Characters	Minor Characters	10. _____	11. _____
		9. _____	12. _____
		8. _____	Falling Action 13. _____
		7. _____	14. _____
		6. _____	Events: Rising Action
		5. _____	
		4. _____	
		3. _____	
		2. _____	
		1. _____	
Setting:		Conflict:	
		Resolution:	
		Author's Theme:	

3-12 Reading Strategies

Task Rotation Strategy - Think of a reading selection that implies 'how to.' Come up with four tasks going from the literal and concrete to the highly abstract (e.g. (1) defining terms, (2) webbing a summary, (3) creating an outline, and (4) writing a response). Figure out how you could group students so that some complete all four tasks and others just do the tasks they can. Another idea is to require all students to complete all tasks but to differentiate timelines.

Think-Aloud Self-Assessment Strategy (Billmeyer and Barton, 1998) - Select a passage to read aloud that contains difficult points, unknown vocabulary terms, or ambiguous wording. Develop questions to ask yourself which show what you think as you confront these problems. Try to model the kinds of coping strategies you could use (see self-assessment record on following page). Have students work with partners to practice "think aloud" when reading short passages of text. Periodically revisit this strategy so that meta-comprehension skills become second nature.

Example: Think-Aloud Strategy

Assessing My Use of the "Think-aloud" Strategy				
While I was reading, how much did I use these "think-aloud" strategies?				
	Not much	A little	Most of the time	All of the time
Making and revising predictions				
Forming mental pictures				
Connecting what I read to what I already know				
Creating analogies				
Verbalizing confusing points				
Using fix-up strategies				

T-Notes (Reiss, 2005) - This strategy is a simplified form of an outline which helps students with reading comprehension and note-taking skills. T-notes have two columns: the left-hand side lists the main ideas of the reading and the right-hand side is for students to complete details/ examples of the main ideas. See example on following page.

3-12 Reading Strategies

The Civil War - A Turning Point in American History	
Main Ideas	Details/ Examples
1. The Civil War was expensive in lives and money.	360,000 Union soldiers died. 250, Confederate soldiers died. \$20 billion spent.
2. The Civil War was a turning point.	The Democratic party got weaker. The Republican party got stronger. States lost some power. The federal government got stronger.
3. The Civil War officially ended slavery.	Millions of African-Americans became free. Millions of Americans thought about the meaning of 'free and equal.'
4. The Civil War didn't end the struggle for equality.	In the Gettysburg Address, Lincoln said that the nation must work hard in the fight for equality. This struggle made the US a stronger, freer country.

Two-Minute Preview (Stephens and Brown, 2000) - This strategy provides students with an overview of the reading and helps them develop a strategic plan for reading it. Provide students with an outline or checklist (see example on following page). Pair them and give them five minutes to preview the material and jot their responses. To be effective, model several different ways of previewing and provide students with ongoing practice. This is especially helpful with non-fiction reading passages. See example on following page.

3-12 Reading Strategies

Textbook Preview

Introduction: What is the author talking about?

Headings and Subheads: What are the topics of these sections?

Graphs, charts, maps, and tables: Do I understand how to interpret this information?

Margin notes: What kind of information do they provide?

Summary: Does it provide a clear overview of the chapter?

Questions: Do the questions cover major ideas in the chapter?

Visual Reading Guide (Readence, Moore, and Rickelman, 2001) - This approach introduces students to a passage by predicting information based on graphics in a text. The following steps are involved: (1) the teacher explains to students why some graphics are more important than others by modeling the qualities that make one chart optional and another crucial, (2) students analyze what each graphic is depicting by answering questions like *What is this showing us?*, *How is this graphic organized?*, *Why is this important to the topic?*, and *Is there anything that does not make sense?*, and (3) students should discuss the information to formulate a main idea, citing evidence to support their statement.

<i>What is this showing us?</i>	<i>How is this graphic organized?</i>	<i>Why is this important to the topic?</i>	<i>Is there anything that does not make sense?</i>

3-12 Reading Strategies

X Marks the Spot (Stephens & Brown, 2005) - Students use a coding system to help them interact with their reading. The three-part reading response code helps them to identify significant information, new information, and information that is unclear. The teacher models the reading response code as follows: X means "I've found a key point"; ! means "I've found some interesting, new information"; and ? means "This is confusing" or "I have a question about what this means." Have students list the information on charts to serve as a guide for answering questions and reviewing the major text concepts.

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