



Teaching Reading in the Content Areas

CI3T Summer Conference: All Means All

June 21, 2016

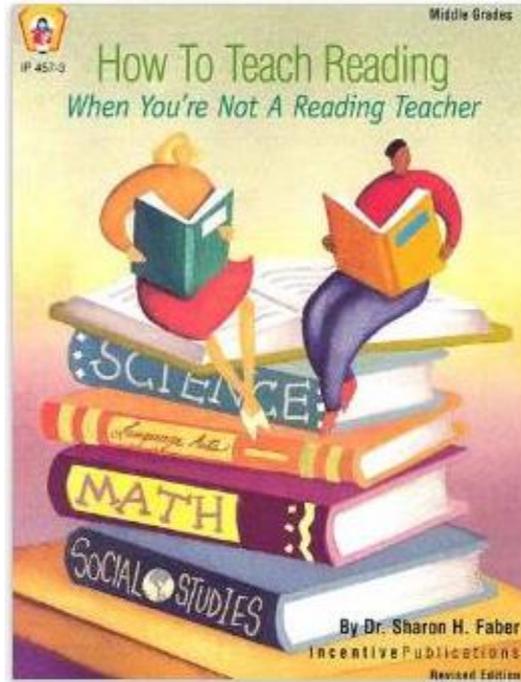
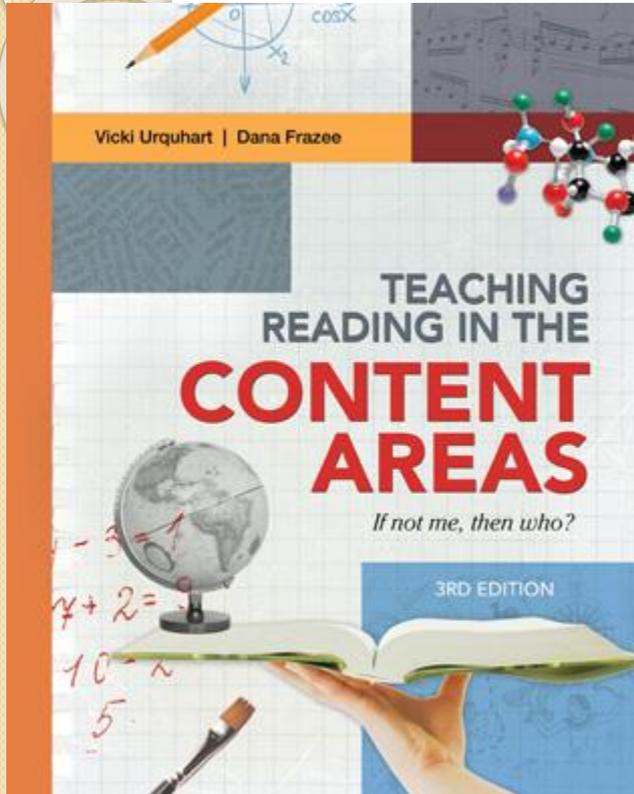
Nikki Shrum

Teaching Reading in the Content Areas:

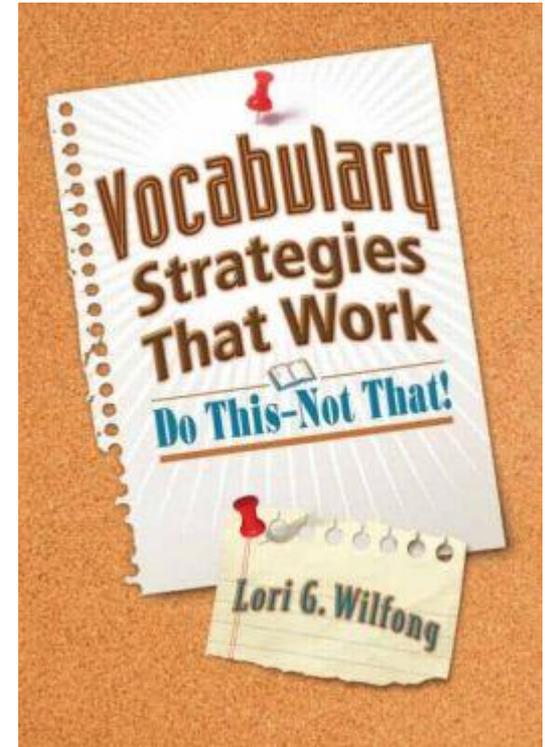
If Not Me, Then Who?



Why, How, & Instructional Strategies



Effective Vocabulary Strategies



Teaching Reading in the Content Areas: If Not Me, Then Who?

For this session...

Outcomes:

- By the time you leave today, you will be able to:
 - Explain a variety of teaching/learning strategies used with secondary students to improve content area reading
 - Incorporate activities that allow for strategy modeling

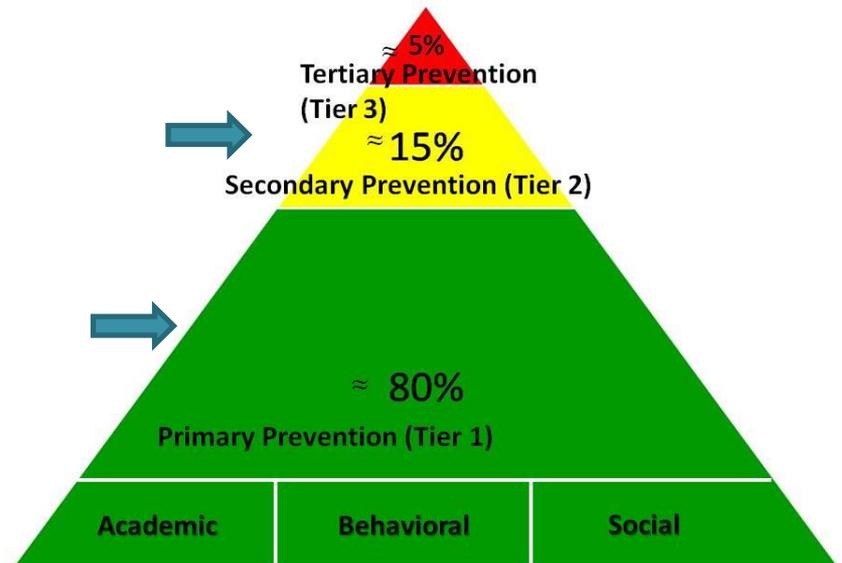
Agenda

- Why me?
- What is Content Area Literacy
- Strategies to teach Content Area Literacy

Organization for Today

- Summer Conference- Weebly has materials for today
- Twitter- **#allmeansall16**
- Parking Lot- post its on chart paper to capture questions.

- Notes Page



Where are you in the implementation process?

Adapted from Fixsen & Blase, 2005

Exploration & Adoption

- We think we know what we need so we are planning to move forward (evidence-based)

Installation

- Let's make sure we're ready to implement (capacity infrastructure)

Initial Implementation

- Let's give it a try & evaluate (demonstration)

Full Implementation

- That worked, let's do it for real and implement all tiers across all schools (investment)
- Let's make it our way of doing business & sustain implementation (institutionalized use)

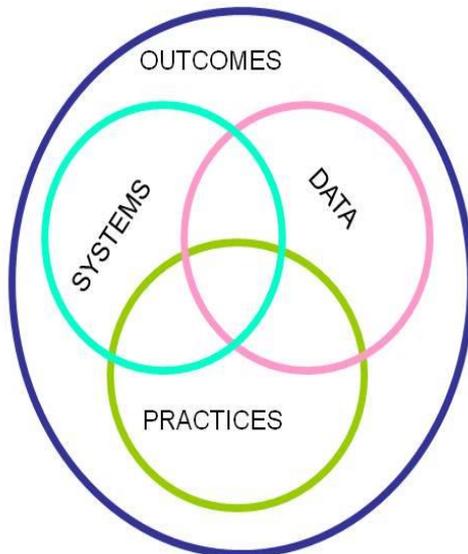
Evidence Based Practices

Supporting Social Competence &
Academic Achievement

SW PBS

Think about how this session fits into your implementation of CI3T.

Supporting
Staff Behavior



Supporting
Decision
Making

Supporting
Student Behavior



“The challenge for the content area teacher is to determine what strategies will help the students acquire the content knowledge while managing the wide range of differences in reading achievement.”

David Sousa, 2005

Research shows:

Students must be involved with their own learning and take personal responsibility for their achievement. Teachers must assure that students can use the strategies at an independent level. Then students can choose which strategy works best for them in each specific situation.

(Sharon Faber, 2001)

The Rationale for Teaching Reading Strategies in All Subject Areas

1. Students do not automatically transfer skills they learn in reading to content areas.
2. Teachers are the experts in their content areas. They can identify key concepts, critical vocabulary, text features, and reading-thinking skills needed to learn in their content.
3. Content teachers can model the skills their students need to use and learn. They can create enthusiasm for their subjects.
4. Reading comprehension is basic to learning in every content area. The content teacher's responsibility is to help students learn to use the reading strategies they need to understand specific content materials and concepts.
5. Teaching reading through content is not teaching phonics or other basic word attack skills. It is modeling and teaching specific reading-thinking skills that the teacher identifies as necessary for students to understand their content.

What is Content Area Reading (Reading to Learn)?

- Content area reading means helping students make connections between what students already know (prior knowledge) and the new information (academic vocabulary) being presented.
- Content teachers must teach their students how to use reading as a tool for thinking and learning in their specific subject.
- **Content teachers do not become reading specialists**
- **Content teachers become teachers who teach their students how to read their specific content and include**
 - vocabulary development
 - comprehension strategies
 - fluency practice
 - writing strategies



Five Research-based Recommendations for Content Area Teachers

- Provide explicit instruction and supportive practice in effective comprehension strategies throughout the school day.
- Increase the amount and quality of open, sustained discussion of reading content.
- Set and maintain high standards for text, conversation, questions, and vocabulary.
- Increase students' motivation and engagement with reading.
- Teach essential content knowledge so students can master critical concepts.

Academic Vocabulary

- **Every content area has its own vocabulary and style of being read**
- As you teach content, make sure your students understand the words that you as a scientist, historian, mathematician, mechanic, etc. know are important to be successful in your subject.
- “The implication for teaching is strong: **It takes more than definitional knowledge to know a word**, and we have to know words in order to identify them in multiple reading and listening contexts and use them in our speaking and writing.” Janet Allen, 1999

Isabel Beck's Three Levels of Vocabulary Comprehension

There are three levels of vocabulary comprehension:

1. **Established – Prior knowledge:** Students know the word easily and rapidly. It is part of their prior knowledge and can be used to being building on new word recognition.
2. **Acquainted – not normally used in daily life:** Students recognize the word and understand the basic meaning. The word is partially understood but clarification is needed.
3. **Unknown Words – Academic Vocabulary:** This is a new word and the meaning is not known. The word is not in the oral reading vocabulary of the students, but the new word represents known concepts.

Activity

- Get with a partner and take turns reading these sentences aloud to each other.
- Discuss what you discovered about reading these sentences
- Share out observations, feelings, and take-aways

Reading Strategy

- What do your students do when they encounter a difficult part of a text?
- While strategies are valuable to students when reading literature, they are almost certainly required for success when reading informational text.
- Explicit teaching of specific strategies is needed.

Before Reading Strategies for Content Areas



Anticipation Guides

- List 3, 5 or 7 statements that:
- -address the major topics, themes of text
- -will make them argue!
- -may not have clear cut answers
- -are experience based if possible

Yes/No	Page	Biology Statements
		Because we live in St. Louis, oceans don't affect us.
		Rivers do not affect oceans.
		The salt in ocean is halite.

Name _____

Class Period _____ Date _____

ANTICIPATION GUIDE
The Odyssey by Homer

Place a check (✓) in the blank to indicate whether you agree or disagree with each of the following statements. We will revisit the anticipation guide at the conclusion of this unit to see if any of your opinions have changed.

Before Reading

After Reading

Agree Disagree

Statement

Agree Disagree

- | | | | | |
|-------|-------|--|-------|-------|
| _____ | _____ | 1. Something that happened hundreds of years ago cannot teach me anything that I can use in my life. | _____ | _____ |
| _____ | _____ | 2. Leaders are responsible for the actions of the people they supervise. | _____ | _____ |
| _____ | _____ | 3. My decisions are my own and no one has a right to try to influence me. | _____ | _____ |
| _____ | _____ | 4. Intelligence is more important to a warrior than strength is. | _____ | _____ |
| _____ | _____ | 5. A strong man never cries in public. | _____ | _____ |
| _____ | _____ | 6. All is fair in love and war. | _____ | _____ |
| _____ | _____ | 7. Loyalty is an important virtue. | _____ | _____ |

Miss Rumphius

by Barbara Cooney

Directions: Before we read this story, please put a check next to those statements that you agree with in the **BEFORE** column. Compare your opinions with a partner's opinions and discuss your reasons for checking or not checking each statement. After we have read this book, please go back and check those statements you now agree with under the **AFTER** column.

BEFORE AFTER

_____ _____

Older people can't do anything to help others because they need help themselves.

_____ _____

The more things you have the happier you are.

_____ _____

People can make the world more beautiful by doing simple things in nature.

_____ _____

If you have a lot of money, you will be happy.

_____ _____

We can learn many lessons from our elders.





Building Background Knowledge Through Dialogue

- Helps students internalize the information they are getting in school to their world around them.
- Helps students develop critical thinking skills and the ability to analyze information.
- Helps students dig deeper into the text, experience shifts in understanding and gain new insights from their peers.

Building Background Knowledge Through Dialogue-HOW TO

- Begin by assessing what type(s) of interaction is/are already occurring in your class:
 - Do the questions you ask elicit discussion?
 - Is there often an open dialogue, a free exchange of information among students?
 - Do students feel free to express opinions about topics?
 - Do you encourage students to “piggy-back” on others’ comments to expand dialogue?



Building Background Knowledge Through Dialogue-HOW TO

- Write quotes on the board that are related to the topic.
- The quote doesn't have to be from the text. It could be from a newspaper, journal, or magazine—it needs to be related to the subject matter.
- Ask students to choose a quote they want to discuss with a partner.
- Give students a few minutes at the beginning or end of the period for partner or small group discussion.

Building Background Knowledge Through Dialogue-HOW TO

- Allow students to engage in debates, letter discussions (they write to each other before speaking), forums, blogs, or online chats.
- Include questions that require students to take sides on an issue and defend their positions.
- Example: If you are reading *Of Mice and Men*, bring in an article about Dr. Jack Kevorkian and have students engage in a debate about assisted suicide after reading the article.

Book/Chapter/Section Walk

- Develop purpose
- Introduce key concepts
- Point out text features
- Activate prior knowledge

Word Sorts

- Allows students to manipulate content and vocabulary. You can sort anything. It creates manipulation of the content and uses a gross motor connection as a part of the long term memory process. Creates a mind-body connection and helps create long-term memory for students.
 - Determine the purpose for the sort
 - Write the terms on cards or strips of paper
 - Place sets in zip-lock bags or envelopes
 - Students can work in pairs or in small groups to match or categorize them

Learning Walls/Word Walls

- Use the power of visualization and make it interactive!
- Remember: the brain research shows that the brain thinks in odd numbers, color, location, and pattern.
- Essential words (verbs from your standards?)

Word Wall Activities

- Riddles, riddles, riddles: have students create riddles for words such as What has 6 letters, starts with p?
- How much are your words worth? Search the wall for words that add up to a certain pre-determined value (a=1, b=2, etc.)
- 20 Questions-Students take turns asking yes or no questions about the word.
- Word Hunt-Look on wall for particular words related to another word/concept or matching given criteria.
- Rivet-Teacher draws spaces for words, fills in one letter at a time until students recognize the word.
- Memory-Cover the word wall, divide class into teams. Team members work together to see who can remember the most words in five minutes.
- Word Up!-Students choose a word from the word wall and complete the following to be shared with the class: what it is, what it isn't, synonym, antonym, how it is used
- Get moving-tall letters are spelled with arms straight up in the air. Small letters are spelled with arms bent at the hips. Dropped letters are spelled with hands on hips and knees bent.

Word Wall Activities Cont.:

- Concept Map-Students create a concept map for words that define complex concepts. They place the word in a circle or box on the centre of a page and then draw other circles/boxes branching off the centre to contain subtopics which can then be further broken down.
- Crossword Puzzle-Students use the words from the word wall to create a crossword puzzle. Students exchange puzzles with a partner and find the word wall words.
- Definition Bingo-Students fill in a bingo-type grid with word wall words. As definitions are read out, students cross out the corresponding word on their grid. The first person to get a complete line of words wins. As a variation: give synonyms or antonyms for appropriate word wall words.
- Media Re-naming-Ask students to re-name a television show or movie using at least one of the appropriate word wall words. Students write the new name on a piece of paper, along with the original name. Use the papers periodically at the end of class by reading out the new title and asking students to guess the original name of the show or movie.
- Memory Association-Encourage students to make connections and increase comprehension by selecting a word wall word that connects to a positive personal memory. Students explain the connection in writing and share their writing with a partner. Volunteers read their writing aloud to the class.

Important “30”

- Brown and Cazden (1965) said that the following 30 root words, prefixes, and suffixes provide the basis for more than 14, 000 commonly used words in the English language:

ad	To, toward	?
----	------------	---

- Root word
Meaning
from your content area
- Example

30 Root Words, Prefixes, and Suffixes Provide the Basis for 14,000 Commonly Used Words



Root Word, Prefix, Suffix	Meaning	Example from Your Content Area	
Ab	Away from		Math: bi, circum , dia , iso , mono , multi , per , poly , quad semi , super , tetra , trans , tri , uni , penta , octo / octa , deca , hexa , nona , cent
Ad	To, toward		
Co, con com, col, cor	Together, with		
De	Away, down, out of		
Dis	Not, opposite		
Ex	Out of, formerly		
In, im , il , ic	In, not		
Pre	Before		
Pro	Forward		
Re	Back, again		
Un	Not, opposite		
Able	Capable of, worthy of		
Ance , ence , ancy , ency	Act or fact of doing, state, quality		
Ex , or	Person or thing connected with, agent		
Ful	Full of, abounding in		
Less	Without, free from		
Ly	Like, characteristic of		
Ment	State of, quality of		
Tion , sion , xion	Action, state, result		
Phon	Sound, speech		
Tele	Distance		
Meter	Measure		
Cap	To seize, take, or contain		
Audio	To hear		
Vid , vis	To see or look at		
Spect , spec , spic	To observe, watch		
Inter	Between		Social Studies: ab , ad , anti , arch , at , con , contra , count , demi , epi , ethno , ex , il , im , multi , neo , ob , omni , para , poly , pro , trans , via , vice
Sub	Under		
Mis	Wrong		
Trans	Across or beyond		



15 Power Words

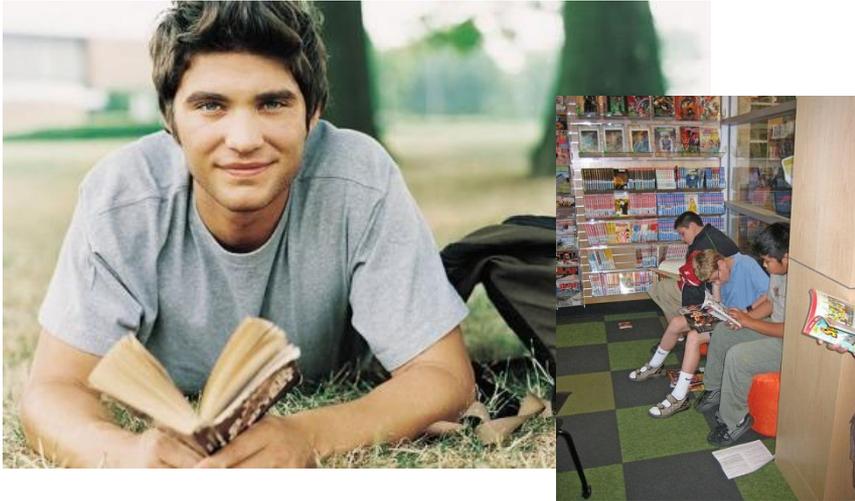
These fifteen words have prefixes or roots that are part of over 15,000 words. That is as many words as most student dictionaries! Memorize these words and the meanings of their prefixes and roots and you have significantly improved your vocabulary.

1. inaudible (not, hear)
2. dismiss (away from, send)
3. transport (across, carry)
4. unsubscribe (not, under, write)
5. predict (before, say)
6. remit (again, send)
7. encounter (in, against)
8. offer (against, carry)
9. inspect (in, see)
10. epilogue (upon, word)
11. antigen (against, people)
12. empathy (in, feeling)
13. intermediate (between, middle)
14. destruction (apart from, build)
15. superimpose (over, in, put)

Building Background Knowledge Through Dialogue-HOW TO

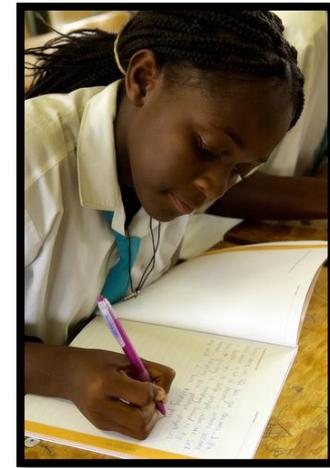
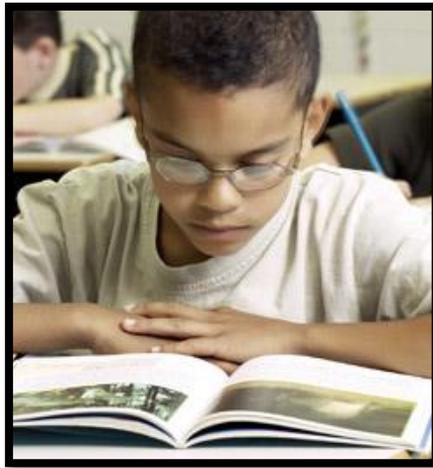
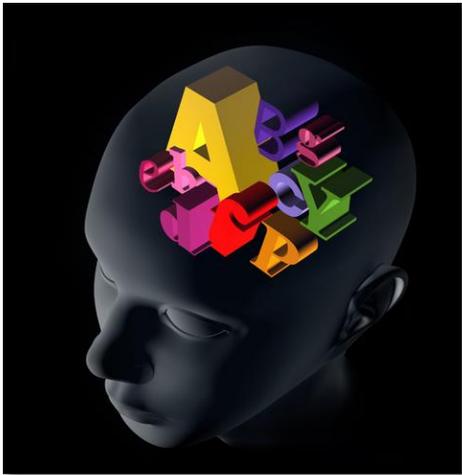
- Find interesting connections for students to consider before studying a specific topic.
- CHANGE
- Example: If you are introducing the Fibonacci sequence in science or math, ask students to discuss how it was used as a clue in The *Da Vinci Code*.

During Reading Strategies for Content Areas



PAR – A Framework for Content Area Reading

- **P**reparation ~ pre-reading
- **A**ssistance ~ during reading
- **R**eflection ~ after reading



Assistance

- Use text features as tools for learning
- Think like a student when planning
 - New concepts?
 - Critical vocabulary?
- What are the challenges to comprehension? Teach the most common organizational patterns and their signal words



During Reading Strategies for Content Areas

“Teachers must address the literacy demands that are *specific* to their content areas because studies have shown that literacy skills are not easily transferred from one content area to another.”

Alvermann & Moore (1991)

Content Area Reading Is

- Reading is much more than just read the story or chapter silently and then answer the questions or do the worksheet when you finish.
- Reading is also much more than the old “round robin” read aloud.
- Try something different to get students actively involved in what they are reading.

During Reading Strategies for Content Areas

- Generic comprehension strategies will do little to increase students' content knowledge (*think*: disciplinary literacy).
- Students must know how to comprehend texts and media in various disciplines by showing them how mathematicians, scientists, historians, or poets read, write, and think.

Shanahan

(2010)

During Reading Strategies

- Pair students and have them read aloud to each other or in unison.
- Read aloud and have students follow along. At designated words or phrases the teacher pauses and the students fill in the missing words.
- Call on a student to read and then that student calls on the next person. Students have the right to pass and then call on another person.
- The teacher reads aloud and then one or more students echo what the teacher has read using the same style and intonations.
- Pair students and have them read orally or silently and then take turns retelling the information in their own words. Partners should be told to elaborate or add any missing content.

During Reading Strategies - continued

- Have students keep learning logs or journals so they can think about what they are understanding or what they are not understanding as they read (metacognition).
- Use chapter mapping, webs, semantic features analysis.
- Use socializing – cooperative learning, peer editing, paired reading, writing a commercial, producing a play.
- Activate and use prior knowledge and reflect on new understanding.
- Teach students to set a purpose for reading.

During Reading Strategies - continued

- Teach fix-up strategies – predict, clarify, re-read the text, read on, question, and summarize.
- Read aloud to students from a variety of texts so they can gain fluency in the content.
- Pause during in-class reading to have students predict.

Use of Text Structure

- Model for, then let your students discover for themselves HOW and WHY an author has organized text in a certain way.

Use of Text Structure

- Use a text structure chart with an assigned piece of text.
- Organize students into partnerships.
- Have students preview the text and decide what type of text structure it is.
- Guiding questions:
 - Why do you believe the author chose a certain structure to convey meaning?
 - Is one type of text structure easier to understand than another? If so, why?

Use of Text Structure

- Have students focus on the non-print features of the text:
 - Graphs
 - Illustrations
 - Maps
 - Cartoons
- Textbooks:
 - Have students attend to words in bold or captions
 - Show them how these features support the text structure

Use of Text Structure

- Read aloud articles or passages from a particular discipline (science, math, social studies, etc.)
- Draw students' attention to how the author has organized the text to enhance meaning
- Allow students to practice on easier pieces of text

Use of Text Structure

- Use of graphic organizers
- There are basically 6 types of graphic organizers for comprehension:
 - Descriptive
 - Time-Sequence
 - Process/Cause-Effect
 - Episode
 - Generalization/Principle
 - Concept

Use of Text Structure

- Using picture books helps students more easily identify and understand text structure with visually engaging text. (Lent, 2009)

Determining Essential v. Non-essential Information

- This is essential for making inferences, summarizing, synthesizing, and understanding logic and argument.
- This skill varies depending on the subject, the purpose, the text, and background knowledge.

Determining Essential v. Non-essential Information

- Set the stage with out of school literacies that students experience:
 - Video game manuals
 - Cell phone messages
 - Movies
 - Social Media
 - Sports or fashion articles, online news articles
 - Song lyrics, ads

Determining Essential v. Non-essential Information

- Interactive practices:
 - Provide photographs for students to analyze with guiding questions
 - Use political cartoons to determine what background knowledge is needed to understand the cartoon
 - Let students work in small groups to determine what is most important in a piece of reading
 - Remember to set the purpose or have your students set the purpose for reading a piece of text.
 - Provide activities that allow students to “show they know” in various ways: writing, drawing, discussion, recording videos, role-playing, etc.

Close Reading

- The purpose of close reading is to help students gain a deep understanding of the text.
- Close reading allows students to uncover the craft, the complexity, and the nuances of the text that the author intended.

Close Reading (Literary Non-Fiction) -Shanahan & Jackson

Teaching Close Reading

- ✓ **1st Read:** Ask questions that ensure that the students understand and think about the major ideas in the story or article. That means you limit questions to big ideas or query information that you think the students might be confused by.
- ✓ **2nd Read:** Ask questions that require students to analyze how the text works: Why the author made certain choices and what the implications of those decisions would be in terms of meaning or tone.
- ✓ **3rd Read:** Ask how does this text connect to your life and your views, critical analysis of quality and value, and how the text connects to other texts.

-Shanahan

Reading Standards for Informational Text 6-12 (RI) –Close Read of Literary Nonfiction

1st read

Understand major ideas



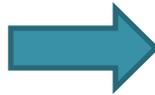
2nd read

Why author made certain choices



3rd read

Quality, value, connection to other texts



Reading Standards for Informational Text 6-12

RI

Grade 6 students:	Grade 7 students:	Grade 8 students:
Key Ideas and Details		
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	2. Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	3. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.	5. Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	6. Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	6. Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
Integration of Knowledge and Ideas		
7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	7. Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).	7. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	9. Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	9. Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6-8 text complexity band independently and proficiently.

Close Reading-ACTIVITY



- Get into partnerships
- Read the story “How to Bartle Puzballs”
- Answer the questions that follow the story
- How did you do?

Literacy in History/Social Studies – Content Area Texts

Reading Standards for Literacy in History/Social Studies 6-12

RH

The standards below begin at grade 6; standards for K-5 reading in history/social studies, science, and technical subjects are integrated into the K-5 Reading standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6-8 students:	Grades 9-10 students:	Grades 11-12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of primary and secondary sources.	1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	1. Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines <i>faction</i> in <i>Federalist No. 10</i>).
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).	5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
Integration of Knowledge and Ideas		
7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
8. Distinguish among fact, opinion, and reasoned judgment in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claims.	8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.
9. Analyze the relationship between a primary and secondary source on the same topic.	9. Compare and contrast treatments of the same topic in several primary and secondary sources.	9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
Range of Reading and Level of Text Complexity		
10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6-8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently.

Literacy in Science – Content Area Texts

COMMON CORE STATE STANDARDS FOR ENGLISH LANGUAGE ARTS & LITERACY IN HISTORY/SOCIAL STUDIES, SCIENCE, AND TECHNICAL SUBJECTS

Reading Standards for Literacy in Science and Technical Subjects 6–12

RST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of science and technical texts.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	2. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
Craft and Structure		
4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.
5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	5. Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).	5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
Integration of Knowledge and Ideas		
7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	9. Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
Range of Reading and Level of Text Complexity		
10. By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently.

Putting It All Together....

- MLS (CCSS) – Literacy knowledge & skills to embed within content area lessons
- Curriculum – Content (what)to teach
- Textbook – instructional resource. Not the curriculum.
- ***Art of Teaching*** – melding the content area literacy standards, curriculum, and instructional resources into a cohesive, engaging series of units and lessons for students.

Deep Reading-HOW TO

- Set the tone with a SHORT introduction to the first reading of a piece of text.
- If you think students have no background knowledge, you will want to provide this, but not TOO much!
- Allow students to read the whole thing.
- Start with something shorter and manageable until students get used to the process.

The Story

- The President declares that the major fighting in Iraq is over and the Iraqis have been liberated.
- Mortgage rates for homebuyers are at a 30-year low.
- The Mighty Ducks hockey team made it to the Stanley Cup finals for the first time in franchise history.

The Flip Side

- American soldiers continue to be ambushed. Anarchy reigns in the cities.
- Housing prices are at an all time high.
- They lost the series in seven games to the New Jersey Devils.

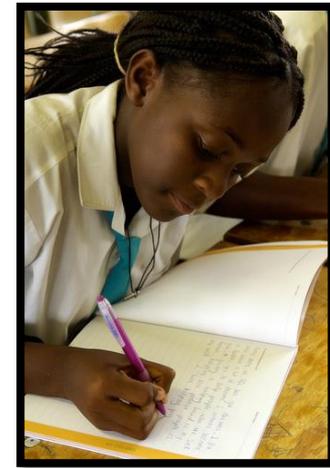
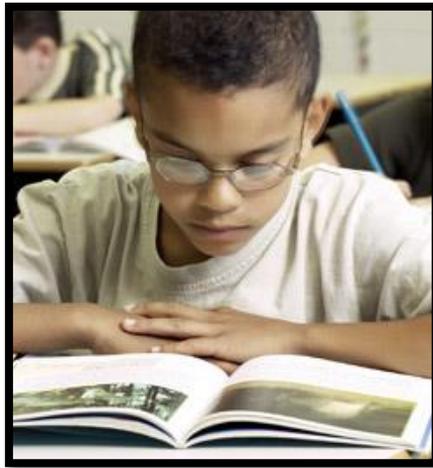
Flip Side Chart-Example

After Reading



PAR – A Framework for Content Area Reading

- **P**reparation ~ pre-reading
- **A**ssistance ~ during reading
- **R**eflection ~ after reading



Collaborate!

- Save the last word for me
- Double entry journal PLUS
- Mystery envelopes
- Group “Exams”



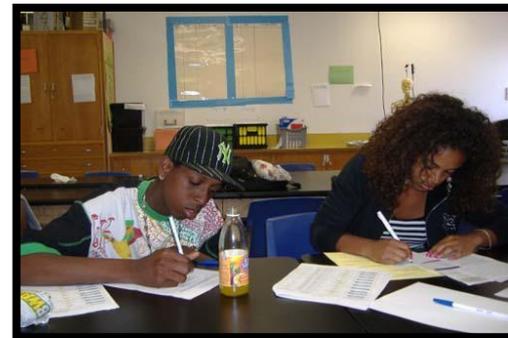
Gallagher, 2004

Reading Applications

- Part of making information easier to remember is making it meaningful to the person who has to remember it.
- If all students do after reading is fill out worksheets or answer questions at the end of the chapter, they tend to develop habits and attitudes that compromise their effectiveness.

Reflection pp. 28-31

- Processing what has been read
 - Reflective conversation
 - Wait time 1 & wait time 2
 - Paraphrase, summarize, or translate the student's answer
 - Clarify student responses
 - Written reflection



More After Reading Strategies

- Discuss the content and synthesize the concepts that were learned.
- Review the significant terms or vocabulary.
- Extend the lesson through writing, projects, or some other type of enrichment activity.
- Assign students to dramatize and perform brief skits.
- Have students create games based on reading.
- Have students assume the personae of characters and engage in a panel discussion.

More After Reading Strategies

- Have students create illustrated flash cards for vocabulary terms.
- After reading informational text, ask 5 questions:
 - Did you find the answers to our questions or which questions did you find answers to?
 - What didn't we find answers to?
 - What else did you learn that we didn't think about?
 - What is the most surprising/interesting thing we read?
 - What do we now know that we didn't know before?

Writing Across the Curriculum

- Math
 - Create word problems and solve recording how you solved
 - Write an essay on how math is used in everyday living
 - Keep a journal that details what you know about math concepts; or store your weekly math reflections
 - Describe math terms without using a dictionary
 - Keep a vocabulary journal, or work with vocabulary words using Frayer model or kwl model

Writing Across the Curriculum

- Science

- Keep a science journal – citing your understanding of key concepts
- Write a lab report
- Create reports on articles or related television shows
- Prepare research papers
- Make a set of directions for using various lab equipment
- Develop a story using the point of view of a leaf, shark, seashell, or planet etc.

Writing Across the Curriculum

- Social Studies
 - Consider a current event and write about it from two points of view
 - Develop an argument for a debate
 - Write about your community
 - Summarize news stories
 - Write an editorial or letter to an elected official
 - Pretend to be a famous historical figure and write about your life
 - Write an obituary for your favorite world leader
 - Interview a person in your family from another decade and compare to the present
 - Write reviews for songs about America

Writing Across the Curriculum

- For Any Class
 - Classroom note taking
 - Compile a list of tips for students coming from the preceding grade/class
 - Keep notebooks or journals
 - Use writing as a reflection or beginning of class focus – essential questions
 - Thank you notes for speakers, teachers, administrators, parents, etc.

Assessment Tool Options:

- Interventioncentral.com-copy and paste ANY content for a “maze” or “cloze” paragraph
- Vocab quizzes pre and post
- What else?

Learner Outcomes

- By the time you leave today, you will be able to:
 - Describe the reading process that proficient readers use for content area reading
 - Explain a variety of teaching/learning strategies used with secondary students to improve content area reading

Cue Use

- Select one or two strategies that you would like to use with your students.
- Learn to use these with students at a deep level.
- Before introducing new strategies, make sure your **STUDENTS** are applying them at a deep level across different types of content reading.

Review and Reflection

- What did you learn?
- What will you try to implement when school starts?

Turn and Talk

- How will you know these strategies are working for your students?



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