

The Science of Reading: Comprehensive Literacy for ALL Students

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Our Mission is to

EMPOWER TEACHERS to ensure that every child learns to read by third grade.

> Our model is research based. Our approach is values driven.

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Empower teaching excellence.

Our Core Values

guide our intentions, actions, and character.

Passion
Lifelong Learning
Professionalism
Collaboration
Empowerment
Accountability

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Literacy is the language of opportunity.

Children are at the heart of all we do. We believe that every child has the right to read.

We know that 95% can be taught to read.

We believe that teachers—not programs or products teach students to read, write and spell.

So we empower teachers with the best ways to teach.

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Reading Instruction

The results of well designed and carefully controlled school-based studies suggest that at least 95% of the total student population can attain average word reading abilities with the implementation of intensive and systematic intervention.

Torgesen, 2004

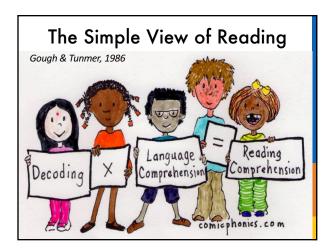
The development of basic reading skills is one of the primary goals of elementary education...but

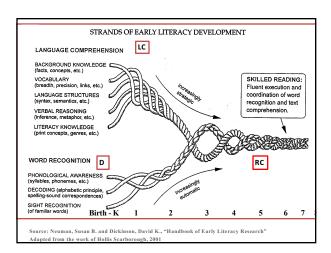
- 66% of U.S. fourth graders are not reading at grade level
- Among students from low socio-economic backgrounds, 80% are reading below grade level

National Center for Education Statistics (2013). The Nation's Report Card: A First Look 2013 Mathematics and Reading (NCES 2014-451). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.

Workshop Objectives

- Explain the Simple View of Reading as the context for how/what to teach students who struggle with reading.
- Define the core components of comprehensive literacy instruction and provide some key research findings.
- Describe essential components of effective instruction and the difference between an approach and a program.
- Provide practitioners with specific suggestions and strategies for understanding and teaching the core components of comprehensive literacy.





The First Literacy How Reading Wheel National Reading Panel Report (2000)

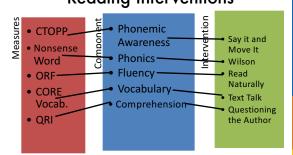


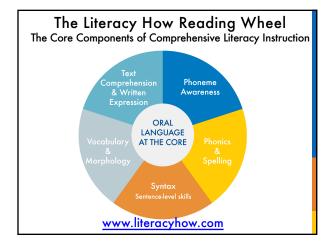
- 5 Big Ideas:
- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension

Establish a Menu of Interventions for each of the 5 Components (an EXAMPLE)

Phonemic Awareness/ Alphabetic Principle	Phonics	Fluency	Vocabulary	Text Comprehension
Road to the Code	Code Emphasis Lesson Plan (MSL)	Repeated Reading Quick Reads	Text Talk Vocabulary	Text Structure Story Grammar Macro. , Micro.
Say It Move It	Lexia	Words and Phrases	RAVE-O	Questioning the Author
Phoneme Grapheme Mapping	Phoneme Grapheme Mapping	RAVE-O	Lexia	Reciprocal Teaching (Strategies)
	Word Sorts			
	Wilson			

Linking Assessment Data to Reading Interventions





Students with Reading Difficulties: A Continuum of Severity			
Mild Moderate Severe			
that requires a continuum of instruction			
Tier 1 Tier 2 Tier 3			
and increasing amounts of teacher knowledge and expertise			
High Higher Highest			

Expert Teaching is the Treatment

"One of the most important conclusions from research is that for children with learning problems, learning is hard work. A corollary to this finding is that for their teachers, instruction is very hard work and requires an enormous amount of training and support. Children who have difficulty learning to read or completing mathematics problems will likely not benefit from 'more of the same' but require an alternative method of teaching to assist their learning."

Semrud-Clikeman, 2005

Common Elements of Successful Interventions

- They include multiple instructional components, but always focus on *explicit* and *systematic* instruction in *phonology* and the *alphabetic code*.
- 2. They are *engaging* and *interactive*, often incorporating manipulatives.
- 3. They allow students many opportunities to respond.
- Students are provided many opportunities to practice through cumulative reviews to support mastery learning.
- 5. Data are used to *monitor progress* and ensure *intervention fidelity*.

Al Otaiba, Connor, et al., 2009

Principles of Structured Literacy Instruction

- Explicit: Deliberate teaching of all concepts with continuous student-teacher interaction
- Systematic: Material follows the logical order of the language from easier to more difficult and each skill/step requires mastery before moving on
- **Cumulative**: Each step is based on previously learned concepts
- Diagnostic: Instruction is individualized based on formal and informal data including observation of reading behaviors
- Prescriptive: Scaffolds used to manage the level of difficulty and corrective feedback is given so students know how monitor their reading errors

One Size Doesn't Fit All

Student's profiles and difficulties must be identified and interventions adjusted to meet each one's individual needs.



Knowledge and Practice Standards for Teachers of Reading

The document serves as a guide in reviewing and accrediting programs that prepare teachers of reading and/or programs that specialize in preparing teachers to work with students who have reading difficulties and disabilities.

https://eida.org/knowledge-and-practices/

The International Dyslexia Association

Comprehensive Literacy Instruction				
NRP (2000)	Literacy How Reading Wheel (2009)	CCSS (2010)	Structured Literacy (IDA) (2015)	
Phonemic Awareness	Phonemic Awareness	Foundational Skills (PA)	Phonology	
Phonics	Phonics/ Spelling	Foundational Skills (Phonics)	Sound-Symbols Syllable Instruction	
Fluency	Syntax (in lieu of Fluency)	Foundational Skills/Language	Syntax	
Vocabulary	Vocabulary and Morphology	Language/ Foundational Skills	Morphology Semantics	
Comprehension	Comprehension Written Expression	Reading Literature and Informational Text Writing	Semantics	
	Oral Language	Speaking and Listening	All instruction is based on rich OL	

Two Types of Intervention

- Standard Treatment Protocol
- Problem-Solving Approach

Standard Treatment Protocol

- · A single, consistent intervention is used
- This ensures accurate implementation that is, treatment fidelity.
- The interventionists must receive comprehensive training.
- 'They also need to receive ongoing support and professional development while delivering the standard treatment protocol procedures to ensure that the intervention is delivered correctly.'

Problem-Solving Approach

The student intervention teams meet to discuss what will work best for the individual student. This team will use a menu of intervention options that begins with assessment data that is diagnostic in nature so that the student will receive an intervention that is matched to his/her profile and academic needs.

'On the other hand, the quality of the instruction depends on the skills, knowledge, and training of the team personnel who plan each individualized program.'

http://iris.peabody.vanderbilt.edu/module/rti01overview/cresource/q2/p05/

The Literacy How Reading Wheel Text Comprehension & Written & Written Expression ORAL LANGUAGE AT THE CORE & Spelling Syntax Sentence-level skills www.literacyhow.com

Instructional Focus Areas | Completion | Co

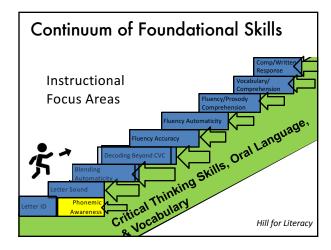
Phonemic Awareness

Phoneme awareness is an awareness of and the ability to manipulate the individual sounds (phonemes) in spoken words.

All students benefit from explicit instruction in phoneme awareness, segmenting and blending the sounds in words.



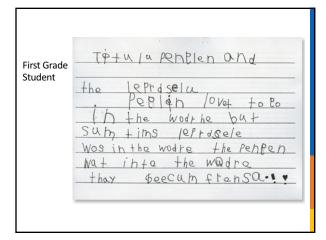
Phonological Awareness develops sequentially, so we begin where the student is in that progression.



Focus on Phonemic Awareness When...

- Younger students have difficulty segmenting and blending sounds in words (DIBELS Phonemic Segmentation Fluency)
- Older students read words inaccurately, leave out and/or misrepresent sounds in their spelling (Word inventories, dictation, written response).

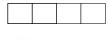




What to Do

- · Picture sorts
- Say It and Move It (Blachman, Road to the Code) (segmenting)
- Elkonin Boxes
- Aliens from Outer Space (blending)
- Teach articulatory gestures (i.e., feel what your mouth is doing)









Effective Literacy Interventions

Phonemic Awareness: Standard Protocol (examples)

- Road to the Code*
- Fundations *
- Preventing Academic Failure (PAF)*
- Lindamood Phonemic Segmentation (LiPS
- Lexia*
- **Language!

*Incorporates Phonics

** Comprehensive

Effective Literacy Interventions

Phonemic Awareness Problem-Solving Approach:

Key Activities

- Multisensory articulation
 - Mirrors-visual
 - Kinesthetic-feeling throat
- Say It and Move It
- Elkonin boxes
- Sound sorts

Teachers must know articulatory gestures (i.e., consonant and vowel charts), progression of PA (rocketship), segmenting/blending techniques, how to assess level of PA

Resources to Teach Phonological Awareness



Phonics from A to Z: A practical guide, Blevins.



<u>Phonemic Awareness in Young Children:</u> A classroom curriculum, Adams, et al.



Road to the Code: A Phonological Awareness Program for Young Children, Blachman, et al.

The Literacy How Reading Wheel Text Comprehension & Written Expression ORAL LANGUAGE AT THE CORE & Spelling Syntax Sentence-level skills www.literacyhow.com

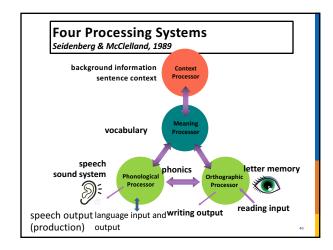
Phonics

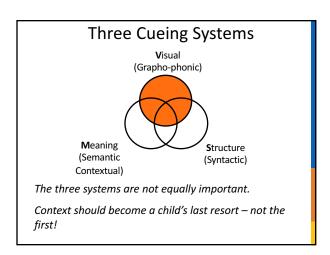
Phonics is the study and use of sound/spelling correspondences and syllable patterns to help students read written words.

Sound-Symbol Association

- Associations must be known in 2 directions:
 - Sound to symbol (e.g., /k/ = k, c, and ck)
 - Symbol to sound (e.g., $\underline{c} = /k/$ and /s/)
- Phonics
 - Decoding
 - Encoding
- Should be embedded in a rich and deep language context.
- Must be taught explicitly!!

A Look at Two Systems Three Cueing Systems: MSV Visual From Processing Systems Context Processor Meaning Structure Orthographic Processor





Four Processing Systems • We look to see where the student breaks down in the reading process. • We 'dig deeper' to learn more about our students' needs.

Teaching Phonics or "The Code"

- Reading or "Decoding" is applying soundsymbol associations and blending sounds together.
 - Begin with VC words (most transparent pattern)
- Spelling or "Encoding" is segmenting words by sounds and applying sound-symbol correspondences (upper levels apply spelling patterns and rules).
- Reading and spelling are reciprocal skills.

What is a Sight Word

- A word that is recognized instantly regardless of whether or not it is phonetically regular or irregular. It is known as a familiar word rather than an unfamiliar word.
- An unfamiliar 'sight word' is one that children either try to sound out or guess.
- A sight vocabulary is a pool of words that an individual can instantly and effortlessly recognize.

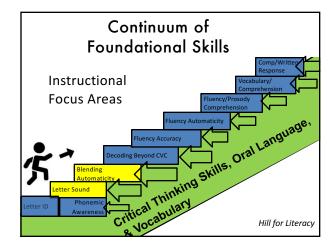
David A. Kilpatrick, 2015

Orthographic Mapping

The process readers use to store written words for immediate, effortless retrieval. It is the means by which readers turn unfamiliar written words into familiar, instantaneously accessible sight words.

This explains how readers build a sight vocabulary.

David A. Kilpatrick, 2015



Focus on Letter Sound and Blending Automaticity When...

- Students read words sound by sound.
- Students have not mastered sound-symbol associations (DIBELS NWF-CLS, Core Phonics Survey)
- Students are not automatic when blending sounds (NWF-WWR, Core Phonics Survey, Scholastic Nonsense Word Assessment)

Integrated Decoding and Encoding Instruction

"Findings from this research suggest the need to encourage teachers to implement direct, explicit encoding instruction and guided encoding practice. Allowing multiple opportunities to practice manipulating previously taught phoneme—grapheme combinations is also likely to give students tools for acquiring the alphabetic principle and developing fully specified orthographic representations of words, both of which are necessary to learn to read, spell, and write for all students of varying abilities."

Weiser, 2012

Word Consciousness

Students who understand that orthography can be mapped in systematic ways to speech, and that every word's spelling has an explanation, are more likely to attend to the details in print and form lasting memories for the letters in words. A word's spelling is one critical feature of our knowledge of that word.

Moats, 2007

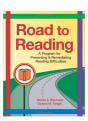
Research confirms...

- 1. Learning to spell is more complex than just memorizing words.
- Spelling is a developmental and conceptual process.
- Spelling impacts reading speed and accuracy, writing fluency, pronunciation and vocabulary.

Effective Literacy Interventions

Phonics: Standard Protocol (examples)

- Road to the Code
- Fundations
- Wilson Reading System
- Preventing Academic Failure (PAF)
- Road to Reading
- Language!
- · Orton Gillingham Approach



Effective Literacy Interventions

Phonics: Problem Solving Approach Key Activities

- Explicit instruction in letter sound correspondences
- · Sound-Letter Mapping/Word Chains
- Word Sorts
- High Frequency Word Charts
- Syllable types and blending multisyllabic words
- Explicit instruction in the meanings of roots and affixes to analyze the relationship of spelling to meaning of complex words (advanced phonics)

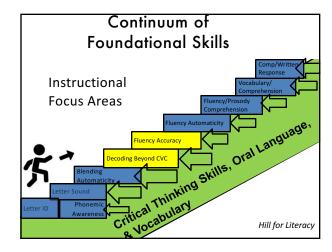
Teachers must know how to map phonemes to graphemes, the phases of reading and spelling development, how to sort syllables and divide multisyllabic words, use assessments to determine point of breakdown, the scope and sequence of

Syllable Instruction

- Concept of a syllable one vowel sound
- Six basic syllable types
- Key to determining the sound of the vowel in each syllable
- Syllable division rules support multisyllabic reading accuracy and automaticity.

The Six Syllable Patterns

С	closed	VC	at
0	open	V	he
V	vowel teams	VV	rain, cow
Ε	silent e	v-e	ate
R	r controlled	vr	for
S	final stable syllables	-cle	crum ble
		-ion	act ion



Focus on Decoding Accuracy When...

- Students have difficulty reading nonsense words with various vowel patterns (Scholastic Nonsense Word Assessment, CORE Phonics Survey)
- Students make frequent decoding errors while reading words in and out of text (*Oral Reading Fluency tests*, word recognition tasks, running records)

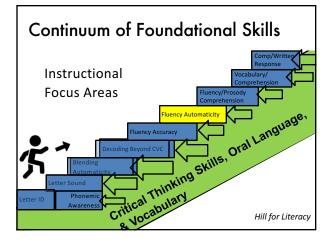
Syllable Inspectors Closed: VC CCVC CVCC CVC CCVC One (1) vowel, followed by One (1) or more consonants The short sound of the vowel Teaching the vowel syllable patterns of English so

students will know how to read single syllable and

multisyllablic words.

Elements of Effective Code Instruction

- Direct, explicit, systematic
- Builds on a foundation of phoneme awareness
- Skills progress from easier to more difficult
- Focuses on reading words in connected text
- · Provides cumulative review
- Teaching is diagnostically driven by evaluation/ assessment



Focus on Decoding Automaticity When...

- Students have accurate word recognition skills, including words with various vowel patterns, but they are slow readers (Oral Reading Fluency tests, word recognition tasks, running records)
- Students over-rely on context to help them recognize words.
- Students are using their cognitive energy to 'lift the words off the page' rather than comprehend the text.

- Practice the speech to print match (mapping sounds to letters).
- Begin with closed syllables because they are the most transparent and regular.
- Sequentially teach the syllable/vowel patterns to mastery.

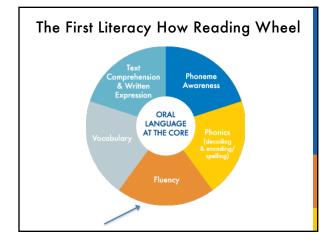
s	а	d		
th	i	ck		
f	I	u	ff	
s	t	r	ea	m
t	oa	S	t	



Decodable Text for Code-Emphasis Instruction

- Review the phonics skill/phonetic element(s) before reading.
- Create word lists and phrases for students to read before they read the text.
- Choose texts with ample representations of the phonetic element(s).
- Plan a dictation of words and sentences containing the phonetic element to practice spelling words in and out of text.





Fluency

Reading fluency refers to reading text with sufficient speed, accuracy and expression to support comprehension.

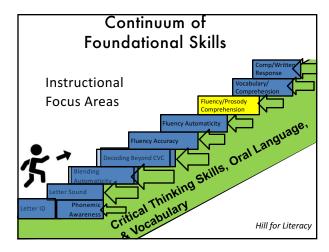
What It Takes to Be a Fluent Reader

- Accuracy (know the spelling patterns)
- Automaticity (recognize and apply the patterns in words instantly – i.e., less than one second)
- Phrasing (group the words in grammatical entities – i.e., elaborated noun phrases, prepositional phrases, verb + adverb phrases)
- Intonation (read it as though you're telling someone a story or conveying information)

A gigantic oak tree in my back yard was covered with acorns throughout the fall.

Problems that Impact Fluency (a broader definition)

- Attention and concentration
- · Slow processing speed
- · Automaticity of lower-level skills
 - Automatic production of alphabet letters
 - Knowing spelling patterns
 - Word retrieval from lexicon



Focus on Fluency, Phrasing, and Comprehension When...

- Students have accurate and automatic word recognition skills, including words with various vowel patterns, but they lack prosody (phrasing and intonation) (Oral Reading Fluency tests, word recognition tasks, running records).
- Students are not 'phrasing' the text that is, they do not read in grammatical phrases and may omit important punctuation to guide prosody and facilitate comprehension.

Effective Literacy Interventions

Fluency: Standard Protocol Examples

- RAVE-O
- Read Naturally
- Quick Reads
- Rewards
- Lexia
- Wilson Reading System

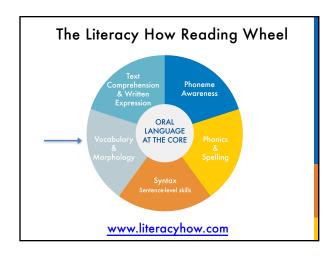


Effective Literacy Interventions

Fluency Problem Solving Approach: Key Activities

- · Rapid word recognition charts
- Phrase-cued reading
- Repeated readings, peer reading, student-adult reading
- Timed reading of word lists, sentences, passages
- Wide reading

Teachers must understand how word recognition, reading fluency, and comprehension are related to one another. They must know or have access to research-based fluency standards by grade level. They should understand which students should receive extra practice with fluency development and why.



Vocabulary

Vocabulary refers to the body of words and their meanings that students must understand to comprehend text.

Comprehension Depends on Knowing Word Meanings

- Vocabulary knowledge is strongly related to overall reading comprehension.
- If a word is decoded and pronounced but the meaning is not recognized, comprehension will be impaired.
- Knowledge of a word's meaning also facilitates accurate word recognition.

Principles of Effective Vocabulary Instruction

- Present word(s) using child-friendly definitions.
- Draw attention to orthographic (spelling) and phonological (sound) representation.
- Engage students in repeated use of word(s) in different contexts.
- Teach words in categories.
- · Make the word meaning visual.



During and After Read-Alouds....

- Focus on words that are contextualized in literature.
- Choose words that are useful in many situations.
- Provide clear, accessible explanations and examples of word meanings in various contexts.
- Provide opportunities for students to actively engage in activities.
- Provide multiple exposures over time.

Morphology

- Morpheme study of meaningful units (morphemes)
- Study of base/root words, prefixes, and suffixes

Inflectional Suffixes

Inflectional suffixes do not change the part of speech. They make different grammatical forms of the same word.

-ed, -s, -ing	$v \rightarrow v$	walked, walks, walking
-s, -'s, -s'	n → n	girls, girl's, girls'
-er, -est	adj → adj	great, greater, greatest

Derivational Suffixes

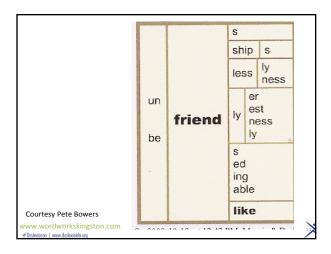
Derivational suffixes change the grammatical role of a word or root. Spellings are often consistent even though pronunciation changes.

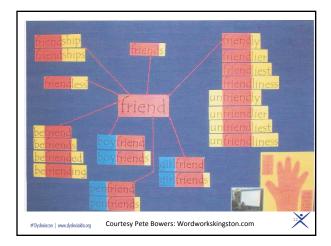
-er verb to noun walk $(v) \rightarrow$ walker (n) drive $(v) \rightarrow$ driver (n)

... pythons have been making their homes in the Everglades at the expense of the **native (natural** to the area) species.

prenatal nature natural naturalize nation nationhood native national nationalize nationalistic nationalism

Structural Clues: Layers of Language Unlocking Literacy, Marcia Henry GREEK Specialized words, used mostly in science, though some, like photograph, are common ROMANCE Technical, sophisticated words used primarily in more formal settings such as literature and textbooks ANGLO-SAXON Common, short, everyday, down-to-earth words used frequently in ordinary situations and found in school primers





Effective Literacy Interventions Standard Protocol Examples

Vocabulary

- Text Talk
- Building Vocabulary

 Skills
- Language for Thinking
- Keys to Literacy, Vocabulary Routines
- Lexia

Morphology

- · Mindful of Words
- PS: Prefixes, Suffixes, and Roots
- Megawords
- Spellography
- WordWorks

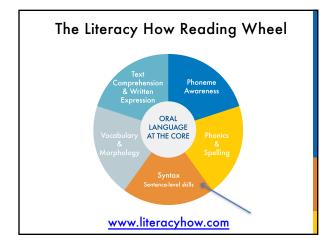
Effective Literacy Interventions

Morphology: Problem Solving Approach Key Activities

- Explicit lessons to introduce word parts (i.e., morphological elements)
- Morpheme categorization (i.e., prefixes, suffixes, roots)
- Word networks

Teachers must understand how to select high-utility vocabulary words from text and provide explicit instruction and repeated exposure to the words in many contexts. They also must know how to provide systematic and explicit instruction in morphemic analysis. Finally, they should understand which students need to receive extra practice with vocabulary development and why.

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Syntax

- Sentence structure: words, phrases and clauses (independent and dependent)
- The set of principles that dictate the sequence and function of words in a sentence in order to convey meaning
- Includes grammar, sentence variation, and mechanics of language

"If a reader can not derive meaning from individual sentences that make up a text, that is going to be a major obstacle in text-level comprehension."

Scott, 2009

8 Grammatical Building Blocks Nouns Adjectiv Adverbs Prepositions • Each "block" serves a specific, meaning-based function. • Together, they provide the basis for all of the syntactic structures in English.

Syntax and Comprehension

- Syntactic awareness contributes to text comprehension.
- Syntax plays an important role in the ability to read fluently.
- Teach the function of words in sentences rather than rote memorization and identification of 'parts of speech.'
- Analyze text for possible sentence level difficulties.

The explicit teaching of syntax ensures adequate syntactic knowledge and supports students' text comprehension.

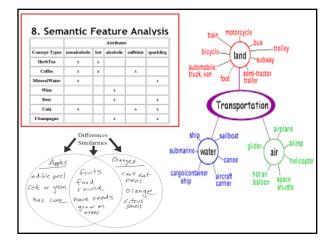
How do we solve sentence comprehension problems?

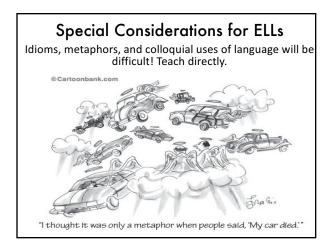
- Identify the points of confusion.
- Teach through oral language activities first, using students' everyday experiences.
- Use student-friendly language to define grammatical terms.
- Go from simple to more complex tasks.

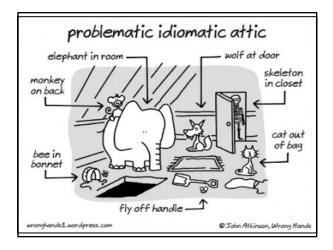
Semantics

- The aspect of language concerned with meaning
- Semantics is also the study of the process by which meaning is derived from symbols, signs, text, and other meaningbearing forms.
- Understand and identify examples of meaningful word relationships or semantic organization.

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Effective Literacy Interventions

Syntax & Semantics: Problem Solving Approach Key Activities

- Explicit lessons to teach how words, phrases, and clauses function in the sentence.
- Explicit lessons to show students how to combine clauses with conjunctions to create compound and complex sentences.
- Use of graphic and semantic organizers to show word functions, the relationship between words, phrases, and clauses, and how words are related through word networks

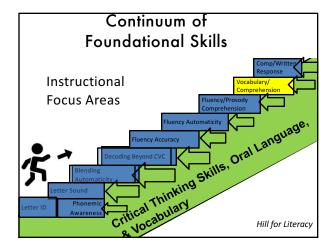
Syntax: Teachers must construct and deconstruct simple, complex, and compound sentences. They must also identify and classify words and their function by their grammatical role in a sentence.

Semantics: Teachers must match or identify examples of word associations, antonyms, synonyms, multiple meanings and uses, semantic overlap, and semantic features analysis.

The Literacy How Reading Wheel Text Comprehension & Written Expression ORAL LANGUAGE AT THE CORE & Spelling Syntax Sentence-level skills www.literacyhow.com

Text Comprehension

Text comprehension, the ability to make meaning, is the ultimate goal of reading. It requires specific skills and strategies, vocabulary, background knowledge and verbal reasoning skills (Hollis Scarborough's Braid).



Focus on Vocabulary and Comprehension When...

Students can read text accurately, automatically and with prosody but they have difficulty comprehending what they're reading (*QRI-6*, running records, story recall/retell).

Effective Literacy Interventions

Comprehension: Standard Protoco Examples

- Questioning the Author
- Collaborative Strategic Reading/Now I Get It!
- Language!
- REWARDS
- · Reciprocal Teaching

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Vow I	-			
proving aprehension Pstioning Author	-			
garded View Agreech	_			

Effective Literacy Interventions

Comprehension: Problem Solving Approach Key Activities

- · Explicitly teach text structure.
- · Teach inferencing.
- Teach students to answer and generate questions, giving ample opportunities to engage in discussions relating to the meanings of text.
- Teach strategies including comprehension monitoring, summarizing.

Teachers must understand factors that contribute to successful comprehension (i.e., mental model). They must know various text structures and genres, understand why and how comprehension has broken down, and what to do to assist students to repair.

Provide frequent opportunities for student practice with feedback

- Frequent student response can assist the teacher in monitoring student understanding.
- Teacher feedback during student practice can be a powerful tool for refining and mastering new skills.
- Feedback prompts students to continue successful practice.
- Quick corrections prevent students from practicing errors.

Thank You!

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