

**Pittsburgh Public Schools**  
K-5 English Language Arts

**The Science of Reading &  
Structured Literacy Handbook  
2025-2026**



**Reading**



**Writing**



**Speaking**



**Listening**



# Introduction

The ability to read proficiently is the foundation of all academic learning and a critical determinant of long-term success in school and beyond. As such, ensuring that every child becomes a skilled reader by the end of elementary school is a shared responsibility—one that requires alignment, clarity, and a deep commitment to evidence-based practice across all members of the educational community.

This Pittsburgh Public Schools Science of Reading/ Structured Literacy Handbook has been developed to serve as a resource for all K–5 English Language Arts stakeholders, including educators, staff, principals, central office administrators, Literacy Academic Coaches, Reading Specialists, families, and community partners. Its purpose is to establish a common understanding of how children learn to read and to provide clear, actionable guidance grounded in decades of interdisciplinary research.

The Science of Reading represents a robust body of knowledge drawn from cognitive science, linguistics, psychology, and education. This research base identifies the essential components of skilled reading—phonemic awareness, phonics, fluency, vocabulary, and comprehension—and emphasizes the importance of systematic, explicit instruction to support all learners. By translating this research into practical application, this handbook aims to bridge the gap between theory and classroom practice.

For our educators, this handbook offers clarity and consistency. It defines instructional expectations, highlights best practices, and ensures that teaching, assessment, and intervention efforts are aligned across classrooms and schools. For principals and instructional leaders, it supports informed decision-making and strengthens our collective approach to literacy leadership.

For families and community members, the handbook is designed to build transparency and partnership. It explains what students are learning and provides practical ways to support reading development at home. When we share a common understanding, we strengthen our ability to support students together.

For our Literacy Academic Coaches and Reading Specialists, the handbook serves as a foundation for professional learning and coaching, ensuring that all guidance and support are grounded in evidence-based practices.

Ultimately, this handbook is more than a resource—it is a commitment. It establishes a common language, promotes equitable access to high-quality instruction, and fosters collaboration across all roles. Most importantly, it ensures that every adult supporting our K–5 students is working toward the same goal using a shared, research-aligned approach.

Thank you for your continued partnership and dedication to our students. Together, we are building strong readers and lifelong learners.

**Pittsburgh Public Schools**  
K-12 English Language Arts Department



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## Section 1:

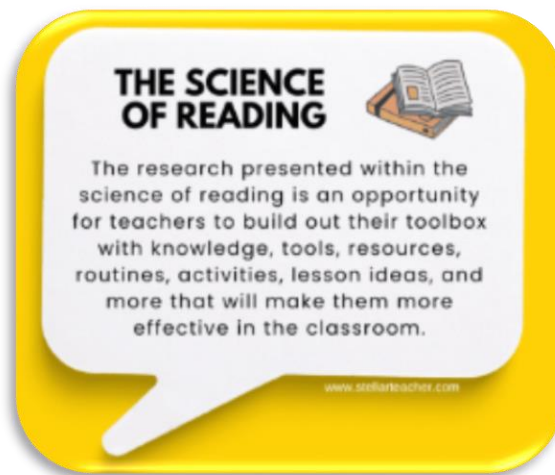
### What is the Science of Reading?

The science of reading is a vast, interdisciplinary body of scientifically-based research about reading and issues related to reading and writing. This research has been conducted over the last five decades across the world, and it is derived from thousands of studies conducted in multiple languages.

The science of reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties.

#### The Science of Reading is Derived From Researchers in Multiple Fields:

- Cognitive Psychology
- Communication Sciences
- Developmental Psychology
- Education
- Special Education
- Implementation Science
- Linguistics
- Neuroscience
- School Psychology



In contrast to basing reading instruction on theories or philosophies, knowledge of the large body of scientific research called the science of reading allows practitioners to select and implement practices about reading that will be the most effective for the most students.

In recent years, our knowledge of how the brain acquires the skill of reading has evolved. We now have a deeper understanding of how the brain processes multiple sources of information while reading. Brain researchers have identified areas and networks of the brain involved in processing print, speech sounds, language, and meaning. Since neural connections required for reading do not exist between these areas in the preliterate brain, efficient pathways are built with explicit instruction and deliberate practice.

Since neural connections required for reading do not exist between these areas in the preliterate brain, efficient pathways are built with explicit instruction and deliberate practice. This instruction has a significant influence on building these networks, over and above “immersion” and instruction that is not explicit.

Educators who are knowledgeable about the necessary connections between the pronunciation of the spoken word, the sequence of letters in the printed word, and the meaning of the word, can implement reading instruction and assessment that promotes the level of automatic word recognition that is necessary for deep processing of the meaning of texts.

Click Here for a Science of Reading Infographic:

<https://www.improvingliteracy.org/resource/the-science-of-reading-an-overview>

The Science of Reading, as explained by  
Dr. Stephanie Stollar



**Section 2:**  
**What is Skilled Reading?**

To understand how a student develops into a skillful reader (i.e., a fluent reader who can comprehend text), we look toward two theoretical frameworks aligned with science. We encourage all stakeholders to familiarize themselves with these frameworks as they should be used to inform reading assessment and instruction.

**The Simple View of Reading**

The Simple View of Reading has been empirically validated by over 150 scientific studies. It shows us that reading comprehension is not the sum, but the product of two components word recognition and language comprehension such that if either one is weak, reading comprehension is diminished.



No amount of skill in one component can compensate for a lack of skill in the other. While it is a simple view of a developmental process, skilled reading development is NOT simplistic. For a more in-depth understanding of the subcomponents within word recognition (WR) and language comprehension (LC), we turn next to Scarborough’s Reading Rope.

**Scarborough’s Reading Rope**

Scarborough’s Reading Rope, developed by Dr. Hollis Scarborough in 2001, is a widely used visual framework illustrating how skilled reading emerges from the intertwining of two main components: Language Comprehension (top strands) and Word Recognition (lower strands). As these sub-skills become more automatic and strategic, they form a "rope" representing proficient, fluent reading.

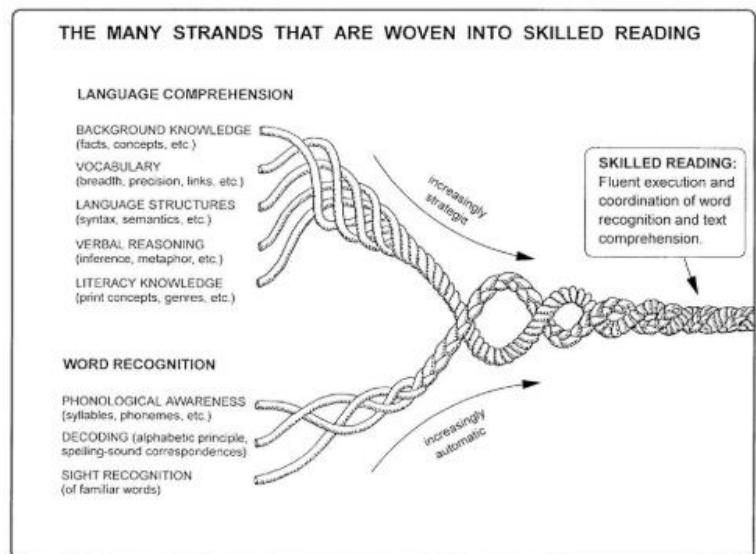
**Key Components of the Reading Rope**

**Language Comprehension (LC):** These involve understanding the meaning of text and become more strategic over time and include...

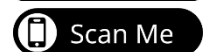
- Background Knowledge: Facts and concepts about the world.
- Vocabulary: Understanding the meaning of words.
- Language Structures: Understanding syntax and semantics.
- Verbal Reasoning: Understanding metaphors and inferencing.
- Literacy Knowledge: Understanding print concepts and genres.

**Word Recognition (WR):** These involve turning print into spoken language and become increasingly automatic.

- Phonological Awareness: Recognizing and manipulating sounds in speech.
- Decoding: Spelling-sound correspondence (applying
- Sight Recognition: Recognizing familiar words instantly.




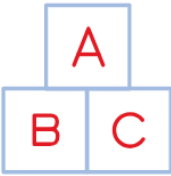



**Scan Here to Watch the video of the Animated Reading Rope**



Section 3:

What are the Five Essential Components of Effective Reading Instruction?

*A Close Look at the Five Essential Components of Effective Reading*

Essential Component	Definition	Instructional Tips
<b>Phonemic Awareness</b> 	<b>Phonemic awareness</b> , a subset of phonological awareness, refers to the understanding that there are individual sounds, or phonemes, in words. For example, the spoken word "sit" has three distinct phonemes, /s/ /i/ /t/. Phonemic awareness additionally includes the ability to isolate, identify, categorize, blend, segment, add, delete, substitute, and reverse individual phonemes.	Be alert to a student's spelling and reading errors that reflect a phoneme awareness weakness. Omission of a speech sound is a flag that the student may be unaware of one or more phonemes in the spoken word. For example, spelling bed as "bd" often reflects lack of awareness of the medial vowel; spelling plan as "pan" is an indication that the student is having difficulty being aware of the /l/ in the blend and needs to do activities that will foster awareness of internal consonants.
<b>Phonics</b> 	<b>Phonics</b> refers to the relationship between sounds (phonemes) and spellings (graphemes). Phonics instruction helps beginning readers understand the relationship between letters and sounds to recognize and decode words.	In implementing systematic phonics instruction, educators must keep the end in mind and ensure that children understand the purpose of learning letter sounds and that they are able to apply these skills accurately and fluently in their daily reading and writing activities.
<b>Fluency</b> 	<b>Fluency</b> is defined as the ability to read text with speed, accuracy, and proper expression (prosody), acting as a "bridge" between word recognition and comprehension. It moves beyond just speed, enabling readers to decode automatically so cognitive energy can focus on understanding meaning.	Improve reading fluency through consistent modeling, repeated readings, and daily practice, focusing on accuracy, proper phrasing, and expression. Key strategies include echo reading, choral reading, partner reading, and using audiobooks, ensuring students read appropriate, engaging texts to build automaticity and confidence, which in turn boosts comprehension.
<b>Vocabulary</b> 	<b>Vocabulary</b> is defined as the stored knowledge of word meanings, pronunciations, and usage necessary for effective communication and reading comprehension. It includes both receptive vocabulary (understanding words while listening/reading) and expressive vocabulary (using words while speaking/writing). It is a critical component of language comprehension.	Key vocabulary strategies include... <ul style="list-style-type: none"> <li>- using kid-friendly definitions,</li> <li>- fostering word consciousness,</li> <li>- mapping words using morphology (roots/prefixes/suffixes),</li> <li>- and repeating words across contexts to move them into long-term memory</li> </ul>
<b>Comprehension</b> 	<b>Comprehension</b> is the active, complex cognitive process of constructing meaning from text, transforming printed words into a coherent mental model. It is not a single skill but the ultimate goal of reading, achieved by combining proficient word recognition (decoding) with language comprehension (vocabulary, background knowledge, and syntax).	Science of Reading-aligned comprehension instruction focuses on building knowledge, vocabulary, and active thinking through explicit strategy modeling and high-quality, complex texts. Key tips include teaching self-monitoring ("fix-up" strategies), using graphic organizers, engaging in oral language and writing to solidify meaning, and explicitly teaching text structure.

## Section 4: Why Does the Science of Reading Matter?

The science of reading is a key component of economic and social mobility for all young people. When more students have a strong foundation in literacy, more students will be able to engage with rigorous, grade-level work and assignments. As concluded in the 2018 report, [The Opportunity Myth](#), ensuring kids have access to grade-appropriate assignments is one of the essential ways to improve their long-term outcomes. When students master foundational literacy skills, the world of learning opens for them—for life.

The **Science of Reading matters** because it explains—through decades of interdisciplinary research—**how children actually learn to read** and what teaching practices are most likely to lead to strong, lifelong literacy. When instruction aligns with this evidence, more students become confident, capable readers; when it doesn't, many struggle unnecessarily.

### Top 6 Reasons Why the Science of Reading is Critical:

#### 1. **The Science of Reading Promotes Equity**

Students who do not receive strong literacy instruction are disproportionately those from historically underserved communities. The Science of Reading provides a roadmap to ensure that every child, regardless of background, has access to effective instruction rather than leaving success to chance or home advantage.

#### 2. **Reading Is Not Natural—It Must Be Taught Explicitly**

Unlike speaking, the brain is not wired to read automatically. Children need systematic instruction to connect sounds (phonemes) to letters (graphemes) and to build the neural pathways that make reading fluent. The Science of Reading shows that explicit, structured teaching of foundational skills—especially phonemic awareness and phonics—is essential for most learners.

#### 3. **The Science of Reading Prevents Reading Difficulties**

Research demonstrates that early, evidence-based instruction can prevent the majority of reading failure. When schools rely on approaches not supported by research, struggling readers—particularly students with dyslexia or language-based learning differences—are far more likely to fall behind.

#### 4. **The Science of Reading Connects Decoding and Comprehension**

Skilled reading is more than sounding out words. Research highlights the importance of both:

- **Word recognition** (phonics, decoding, fluency) **and**
- **Language comprehension** (vocabulary, background knowledge, syntax)

The Science of Reading helps teachers understand the importance of both of these components so students don't just read words—they understand and think critically about texts.

#### 5. **The Science of Reading Guides Teachers with Clear Practices**

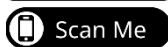
Instead of trends or opinions, educators can rely on approaches proven to work: structured literacy, cumulative practice, diagnostic assessment, and targeted intervention. This leads to more efficient instruction and better use of instructional time.

#### 6. **Literacy Changes Lives**

Reading proficiency is linked to success in every subject, higher graduation rates, and greater opportunities beyond school. The Science of Reading matters because literacy is a civil right—and effective instruction opens doors for children academically, socially, and economically.

The Science of Reading matters because it replaces guesswork with evidence. It ensures that teaching matches how the brain learns, giving all children—not just some—the chance to experience the joy, power, and freedom that come with being able to read well.

**Learn More Here:**  
The Science of  
Reading: Unlocking  
America's Literacy  
Crisis

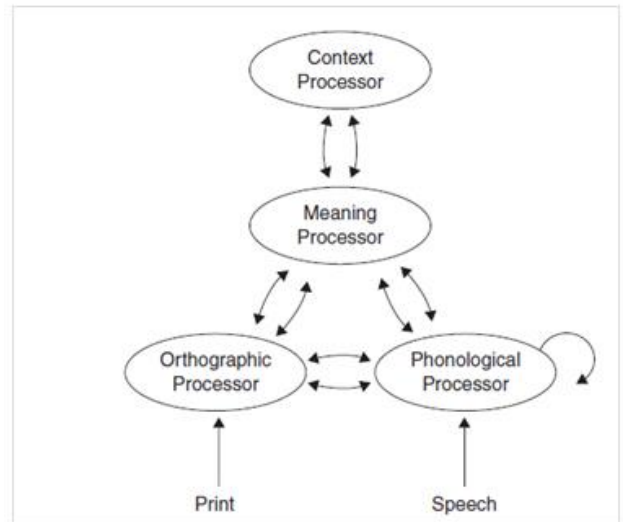


## Section 5:

### What is the 4 Part Processing Model?

The Four-Part Processing Model is a neuroscientific framework illustrating how the brain recognizes words during reading through the simultaneous interaction of four systems. It is central to the Science of Reading because it explains how instruction must develop all four areas to achieve automatic, fluent reading.

The dual arrows go both ways to show how all four processors work together simultaneously to support the work of those around them. When teaching students to deconstruct words, all four processors should be engaged to maximize learning.



- Adams, M. A. (1990). *Beginning to Read: Thinking and Learning About Print*. Cambridge, MA: MIT

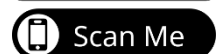
1. **The Orthographic Processor** filters through the letters (graphemes) in the word. Orthographic mapping turns "decoding" (sounding out) into "instant recognition" by connecting the brain's existing language knowledge with new, printed words.
2. **The Phonological Processor** connects the letters (graphemes) with their sounds (phonemes) and blends them together to make a word. It is activated by speech and can be reactivated when the student subvocalizes or repeats the word.
3. **The Meaning Processor** connects the word with knowledge that the reader has accumulated about it, including related words (e.g., have, had, having, has, etc.) and past experiences. This is how vocabulary can be an important part of decoding words.
4. **The Context Processor** compares the word with the reader's overall interpretation of the text.

At the foundation of the Four-Part Processing Model are **phonological processing** and **orthographic processing**. Essentially, the phonological processing system allows us to identify and use the sounds of language. The connection between phonological processing and orthographic processing is often referred to as phonics. Phonics is a method of instruction that teaches students how to connect sounds to letters and letter combinations in order to accurately read and comprehend words (O'Connor, 2014, p. 54).

The Four-Part Processing Model positions the **meaning processing** system, also referred to as the **semantic processing** system, above the phonological and orthographic processing system. This system is responsible for making meaning of words encountered both "in and out of context" (Moats & Tolman, 2024, p. 32).

The Four-Part Processing Model places the **context processing** system above the meaning (semantic) processing system to indicate that it is responsible for "interact[ing] with and provid[ing] support for the meaning processing system" (Moats & Tolman, 2024, p. 33). It helps the reader decipher the correct word when words sound the same but have different meanings.

For example, the phonological processing and orthographic processing systems allow us to read the word "bug". When the Meaning Processing System is activated it brings up associated meanings. We recognize the word bug as a synonym for an insect, but given that we are reading a book about spying, we use context clues to apply the appropriate meaning for the context. In this case, the context enables us to understand that "bug" refers to a spying device in the text. To learn more, scan the QR code.



## Section 6:

### How is the K-5 ELA Core Tier I Curriculum Aligned to the Science of Reading?

“The Science of Reading is only a body of research unless it's made actionable” – *Open Court Reading*

#### Built on the Science of Reading, Validated by Research

Grounded in decades of literacy research and a proven history of efficacy in the classroom, Open Court Reading (OCR) has been building strong readers, writers, and thinkers for more than 60 years.

#### Instruction that Turns Research into Action


The Science of Reading is only a body of research unless it's made actionable. Through systematic, explicit instruction and a scope and sequence that follows a purposeful progression of skills—first build a strong foundation, then build upon that foundation— Open Court Reading empowers teachers to turn research into action every day.

#### Foundations for Lifelong Literacy

Literacy research consistently shows that complex learning cannot take place without strong foundational skills. Open Court Reading provides students the building blocks needed to read and comprehend texts across genres, synthesize information to develop and discuss complex thoughts and ideas, and become fluent storytellers themselves.

### Key Aspects of Open Court Reading & Science of Reading

#### 1. Print & Book Awareness

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
The National Early Literacy Panel (NELP), which provides a synthesis of the research on early literacy development, identified the link between specific early literacy skills and later success in reading and writing (National Early Literacy Panel, 2008).	The Foundational Skills section of Open Court Reading contains print awareness instruction related to learning the alphabet, letter formation, and how the alphabet works. Print awareness elements are also integrated into instruction when teachers engage students in reading comprehension and writing activities.	<p><b>Pro Tip!</b> Print awareness involves understanding there are reasons print is arranged in a certain way.</p> <p><b>Scan here for classroom examples and modeling:</b></p> 

#### Additional Research & Instructional Support:

[Is Print Awareness Part of the Science of Reading? by Shanahan on Literacy](#)

[Print awareness is a child’s earliest introduction to literacy - Reading Rockets](#)

[Print Awareness: Introduction](#)




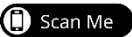
[Guidelines for Promoting Print Awareness](#)

[Reading 101 for Parents: Print Awareness](#)

Watch & Learn: Print Awareness in Action!



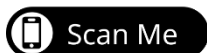
## 2. Phonological & Phonemic Awareness

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>The ease with which children learn to read often depends on their level of phonological/ phonemic awareness (Shaywitz, 2003; Stanovich, 1986). Explicit instruction in phonemic awareness is important, and it should follow a developmental progression from working with words and parts of words to manipulating individual sounds (Mott &amp; Rutherford, 2012). Phonological and phonemic awareness are initially taught as oral/aural (speaking/listening) skills. Combining this instruction with instruction in letter sounds has a positive effect on reading and spelling for many students, including ELs and readers with disabilities (National Institute of Child Health and Human Development, 2000).</p>	<p>Phonological awareness instruction includes listening for word parts, identifying the number of words in sentences, combining word parts into words, working with rhyme, clapping and counting syllables in a word, and manipulating and exploring sounds through game-like activities. Phonemic awareness instruction shifts from working with words and word parts to manipulating individual sounds (or phonemes). Instruction focuses on two key areas: oral blending and oral segmentation. Phonemes are connected to letters as students move through activities that focus on sound and letter substitution and sound discrimination.</p>	<p><b>Pro Tip!</b> Struggling decoders of any age can work on phonological awareness, especially if students demonstrate problems in blending or segmenting phonemes.</p> <p><b>Scan here for classroom examples and modeling:</b></p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;">   </div>

### The 4 levels of phonological awareness

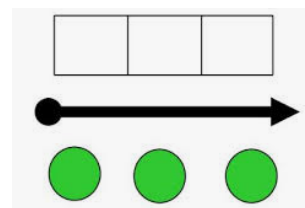
Word Level	Syllable Level	Onset and Rime Level	Phonemic Awareness Level
<p>Rhyming</p> <p>Alliteration</p> <p>Sentence segmentation (counting words in a sentence)</p>	<p>one-syllable words</p> <p>multisyllable words</p>	<p><b>Onset</b> is the initial consonant, consonant blend, or consonant digraph, in a syllable or word. Not all words have onsets (at, in, oat).</p> <p>The <b>rime</b> is the first vowel sound and any other letters that follow it in a syllable. For example, in the word <i>mat</i>, the onset is /m/ and the rime is /at/.</p>	<p>The ability to identify and manipulate the individual sounds (phonemes) in a spoken word. For example, the word <i>moon</i> has three phonemes:</p> <p>/m/ /oo/ /n/</p> <p>Phonemic awareness is the most advanced skill of phonological awareness.</p>

### Watch & Learn: What is Phonological Awareness?





### Additional Links

- [Phonological and Phonemic Awareness: Introduction](#)
- [Target the Problem: Phonological and Phonemic Awareness](#)
- [Reading 101 for Parents: Phonological and Phonemic Awareness](#)



### 3. Phonics and Decoding

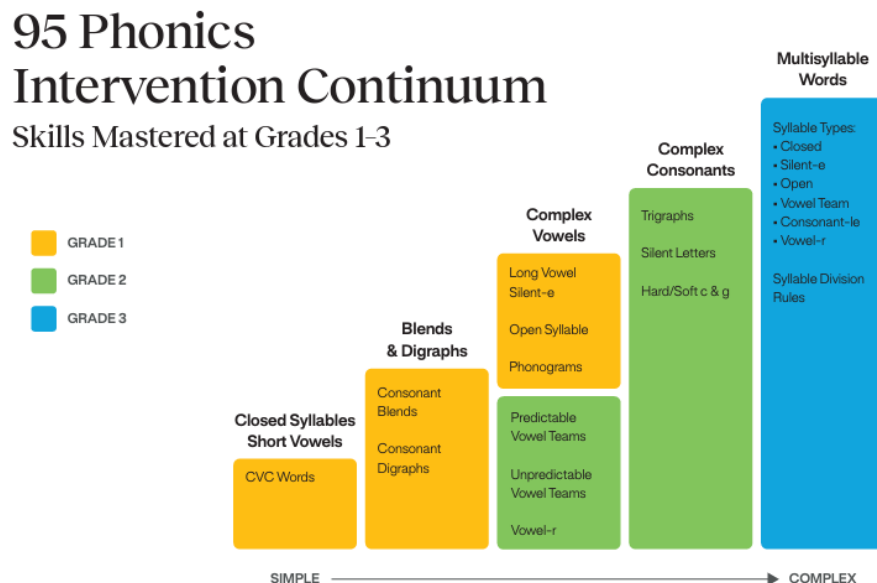
What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>Cognitive science research proves both fluent, accurate decoding and automatic word recognition are essential behaviors skilled readers demonstrate. When these skills are based in phonic knowledge, the reader is able to connect sounds and words to meaning. Louisa Moats specifically emphasizes the importance of young readers connecting sounds to letters (or spellings) and constructing words in order to read them (Moats, 1998).</p>	<p><b>Open Court Reading</b> introduces sounds and spellings through systematic, explicit, and sequential instruction, enabling students to build both decoding (reading) and encoding (spelling) abilities. Beginning in grade K, children learn about the alphabetic principle—that is, which sounds are represented by letters and can be blended to form words. Instruction shifts in grade 1 from mapping sounds to letters to mapping sounds to spellings. Recognizing that some children may need additional support, the program reviews and reinforces explicit phonics instruction in grades 2 through 5.</p>	<p><b>Pro Tip!</b> <i>Don't forget the importance of connected text!</i></p> <p>Teach phonics through daily, explicit sound-to-symbol mapping and immediate application in connected text.</p> <p><b>Scan here for classroom examples and modeling:</b></p> <div style="display: flex; justify-content: space-around;">   </div>

The International Literacy Association published "[Meeting the Challenges of Early Literacy Phonics Instruction](#)", a guide for educators to translate research into tips and guidance for instructional practice.

Topics include:

- Explicit and Systematic Phonics Instruction
- Key Characteristics of Effective Phonics Instruction
- Common Causes of Phonics Instructional Failure

95 Percent Group's *Phonics Continuum* provides a sequence of skills arranged according to difficulty.



Watch & Learn with Literacy Expert Wiley Blevins




Additional Links

[Meeting the Challenges of Early Literacy Phonics Instruction](#)  
[Decoding: The Basics by Louisa Moats](#)

[Stanford study on brain waves shows how different teaching methods affect reading development](#)

#### 4. Word Analysis

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
While focusing on individual sounds is an efficient early reading strategy, it is not effective for longer words. If students learn the Latin root, “bene,” meaning “good,” they can readily find that root in words like “benefit,” “beneficial,” “benefactor”—and appreciate that all these words have something to do with “good.” Thus, using their knowledge of affixes, students can recognize that a “benefactor” is someone who does good things or that “beneficial” is an adjective related to the trait of goodness. As Templeton notes (2010), learning one root leads to the exponential learning of more words; 60 percent of English words are generated using morphological building blocks.	Beginning in grades K and 1, inflectional endings are introduced using words requiring no spelling changes. Common prefixes are introduced in grade 1 to teach about prefixes with no spelling changes. Roots, prefixes, and suffixes are taught in grades 2–5. Students are taught to examine words and identify roots and affixes in order to deconstruct the word. Then, students identify the meaning of each part, reconstruct the word, read the word, and develop its meaning. Finally, students start to use the word in sentences.	<p><b>Pro Tip!</b> <i>Use morphology to unlock expressive and receptive vocabulary!</i></p> <p>Teach word analysis through explicit, cumulative instruction in morphemes—prefixes, suffixes, and Greek and Latin roots—so students learn to unlock meaning, not just pronounce words.</p> <p><b>Scan here for classroom examples and modeling:</b></p> 

Phonics focuses on sounds and spellings, but skilled readers move beyond sounds and spellings to larger units of meaning. Simply stated, students need to learn to read and understand meaningful word parts called “morphemes.”

**Free morphemes** can stand alone as words and include many familiar words, for example, cat and girl. In contrast, **bound morphemes** cannot stand alone. They include inflectional endings, prefixes, and suffixes. The s that is added to the end of a word to indicate plurality—more than one—is also a morpheme. The difference between these morphemes is that cat is a free morpheme and can stand alone; the s on the other hand must be added to a free morpheme to demonstrate its meaning.

	Bound Morphemes	Meaning	Example
<b>Inflectional Ending</b>	-s	plural	boys
		present tense	sits
	-ed	past tense	walked
<b>Prefixes</b>	un-	not	undo
	re-	again	rewrite
	trans-	across	transcontinental
<b>Suffixes</b>	-er	one who	singer
	-ful	full of	plentiful
	-ion, -tion, -ation, -ition	act or process	attraction
<b>Roots</b>	graph	write	biography
	aud-	hear	audible
	tele-	distant	telescopic

#### Watch & Learn





Scan Me

#### Additional Links

- [Word Analysis to Expand Vocabulary Development](#)
- [Using Morphology to Teach Vocabulary by Joan Sedita](#)
- [What Should Morphology Instruction Look Like?](#)
- [How Words Cast Their Spell](#)



## 5. Fluency

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>According to Samuels and Farstrup, fluency is strongly related to improved comprehension (Samuels &amp; Farstrup, 2006). While fluency has been identified as a key element in comprehension, fluency instruction remains limited and often misunderstood (Heitin, 2015). To achieve fluency, students need to decode accurately and rapidly, understand prosodic elements, and combine words into meaningful units (Kieffer &amp; Lesaux, 2007, 61 (2)). Students need specific instruction to increase their reading speed while maintaining their accuracy.</p>	<p>The goal of Open Court Reading is for all students to read fluently at the end of grade 1. Fluency instruction is an essential component of the program. As teachers read aloud, they model fluent reading for their students. Students practice decoding skills using Pre-Decodable and Decodable Books, which contain high-frequency words as well as words consisting of sounds and spellings students have already learned. The program makes an explicit connection between fluency and comprehension through fluency instruction integrated into reading comprehension activities during Reading and Responding. Teachers explain specific fluency skills—accuracy, rate, and prosodic features—and model them using parts of selections from the student anthologies.</p>	<p><b>Pro Tip!</b> <b>Engage students in repeated oral reading!</b></p> <p>The National Reading Panel concluded that repeated oral reading procedures that included guidance from teachers, peers, or parents had a significant and positive impact on word recognition, fluency, and comprehension across a range of grade levels.</p> <p><b>Scan here for classroom examples and modeling:</b></p>  

Pittsburgh Public Schools 4-Day Fluency Routine & Rubric

Day 1: Model and Mark		
Focus	Teacher Moves	Student Actions
Introduce the passage and model fluency reading.	<ul style="list-style-type: none"> <li>Allow students to read the high frequency word list.</li> <li>Read the passage aloud with expression, proper pacing, phrasing and retell.</li> <li>Discuss what makes the reading fluent (e.g., tone, pauses, emphasis, and comprehension).</li> <li>Reread and have students follow along silently.</li> <li>Mark the text together (underline punctuation, circle tricky words, highlight dialogue).</li> <li>Provide time for students to complete a first read of fluency passage.</li> </ul>	<ul style="list-style-type: none"> <li>Read high frequency word list</li> <li>Listen attentively and follow along.</li> <li>Discuss what you noticed about the teacher's reading.</li> <li>Mark your own copies of the text.</li> <li>Engage in a timed first read.</li> </ul>
Day 2: Echo and Choral Read		
Focus	Teacher Moves	Student Actions
Practice fluency through repetition.	<ul style="list-style-type: none"> <li>Reread the passage aloud.</li> <li>Lead an echo reading or choral reading (teacher reads a sentence/phrase; students repeat).</li> <li>Review components of Retell using an anchor chart.</li> <li>Provide feedback on pacing, expression, and accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>Participate in echo and choral reading.</li> <li>Focus on matching the teacher's expression and pace.</li> <li>Turn and Talk (Retell)</li> </ul>
Day 3: Partner Practice		
Focus	Teacher Moves	Student Actions
Build confidence through peer reading.	<ul style="list-style-type: none"> <li>Model focused fluency strategy with Open Court red band text.</li> <li>Pair students strategically (stronger reader with developing reader).</li> <li>Provide guidance on giving positive feedback.</li> <li>Circulate and listen to pairs, offering support as needed.</li> </ul>	<ul style="list-style-type: none"> <li>Take turns reading and apply fluency strategy while reading aloud to a partner.</li> <li>Offer and receive feedback using sentence starters (e.g., "I liked how you...").</li> </ul>
Day 4: Performance & Reflection		
Focus	Teacher Moves	Student Actions
Showcase fluency and reflect on growth.	<ul style="list-style-type: none"> <li>Invite students to perform the passage (pairs or small groups).</li> <li>Record performances if possible.</li> <li>Lead a reflection discussion or have students complete a reflection sheet.</li> </ul>	<ul style="list-style-type: none"> <li>Perform the passage with expression and confidence.</li> <li>Engage in timed reading.</li> <li>Reflect on fluency progress (e.g., "I improved at...").</li> </ul>

### FLUENCY RUBRIC

	1	2	3	4
<b>Expression and Volume</b>	Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend.	Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend.	Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend.	Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage.
<b>Phrasing</b>	Reads word-by-word in a monotone voice.	Reads in two or three word phrases, not adhering to punctuation, stress and intonation.	Reads with a mixture of run-ons, mid sentence pauses for breath, and some chopiness. There is reasonable stress and intonation.	Reads with good phrasing; adhering to punctuation, stress and intonation.
<b>Smoothness</b>	Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage.	Reads with extended pauses or hesitations. The reader has many "rough spots."	Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures.	Reads smoothly with some breaks, but self-corrects with difficult words and/or sentence structures.
<b>Pace</b>	Reads slowly and laboriously.	Reads moderately slowly.	Reads fast and slow throughout reading.	Reads at a conversational pace throughout the reading.



Scan Me

Watch & Learn with Literacy Expert Timothy Rasinski, Ph.D.

### Additional Links

[Creating Fluent Readers](#)

[Fluency: Introduction](#)

[Fluency: In Depth](#)

[Why Reading Fluency Should Be Hot!](#)

[Reading Accuracy vs. Fluency: Why Both](#)

[Skills Matter](#)

[Fluency: Instructional Guidelines and](#)

[Student Activities](#)

[4 Steps to Teach Reading Fluency](#)





[Why Does Fluent Reading Matter?](#)

### Fluency Is the Bridge to Comprehension


Fluency automates the act of decoding, freeing the mind to focus on what matters: meaning.



## 6. Vocabulary

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>Learning vocabulary is a complex and long-term process (Lehr, Osborn, &amp; Heibert, 2004). Decades of research provide evidence of a strong relationship between vocabulary and reading comprehension. Knowing a word well requires understanding multiple meanings, knowing its different functions, and being able to connect the word with other related words (Beck &amp; McKeown, 1991; Nagy &amp; Scott, 2000). It involves many interactions with the word in a variety of receptive and expressive contexts.</p>	<p>New vocabulary is developed, practiced, applied, extended, and reviewed. Vocabulary instruction throughout each lesson provides opportunities for students to discuss definitions of words, use vocabulary words in a variety of activities, and develop a deeper understanding of the meanings of new words. Students monitor their understanding of the text and are encouraged to stop and clarify any unknown words while reading. Students learn new vocabulary both directly and indirectly as they participate in blending, spelling and dictation, discussions, writing, and reading a variety of fiction and nonfiction texts in Big Books, Student Anthologies, and Social Studies and Science Connections.</p>	<p><b>Pro Tip!</b> <i>Explicitly connect new vocabulary to morphology</i></p> <p>The Science of Reading tells us that skilled reading depends on strong connections between phonology (sounds), orthography (spelling), and meaning. When you teach vocabulary through morphology, you strengthen all three systems at once.</p> <p><b>Scan here for classroom examples and modeling:</b></p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;"> <span> Scan Me</span> <span> Scan Me</span> </div>

### Example Vocabulary Lesson




**Before**

**Teacher**

The title of this book is *The Grouchy Ladybug*. **Grouchy** means grumpy or angry. Someone who is grouchy is not happy.

**Prompts**

- What does grouchy mean?
- Show me with your face what grouchy looks like.
- Look at the book cover again. How would you describe the ladybug on the cover?




**During**

**Teacher**

When discussing story elements, like the main character, use the target word to describe the ladybug.

**Example**

"The grouchy ladybug is grouchy, mean, and not polite."



**Discuss**

Prompts like the following can be used to promote additional discussion and interaction.

**Teacher Prompt**

"Take a moment and share with your partner about a time when you felt grouchy. Now, who can tell me a time when you felt grouchy?"

"When you're grouchy, you're in a grumpy, bad mood. Tell me how that feels."

"If someone is grouchy, how are they acting? What do they do? What do their face and body look like?"

Encourage students to use the target word and to use full sentences in their responses.

**Student Response**

→ "I felt grouchy this morning when my sister woke me up."

→ "When I'm being grouchy, it feels like I'm not happy about anything."

→ "Grouchy people never smile, and they just sit there all slouchy."

### Additional Links

Watch & Learn with Literacy Expert Dr. Isabel Beck!

[Five Key Principles for Effective Vocabulary Instruction](#)

[Vocabulary: Introduction](#)

[Vocabulary: In Depth](#)

[Vocabulary: In Practice](#)

[Previewing Vocabulary Before Reading](#)




[Classroom Vocabulary Assessment for Content Areas](#)

[Building Vocabulary Knowledge: What Does It Mean to Know a Word?](#)

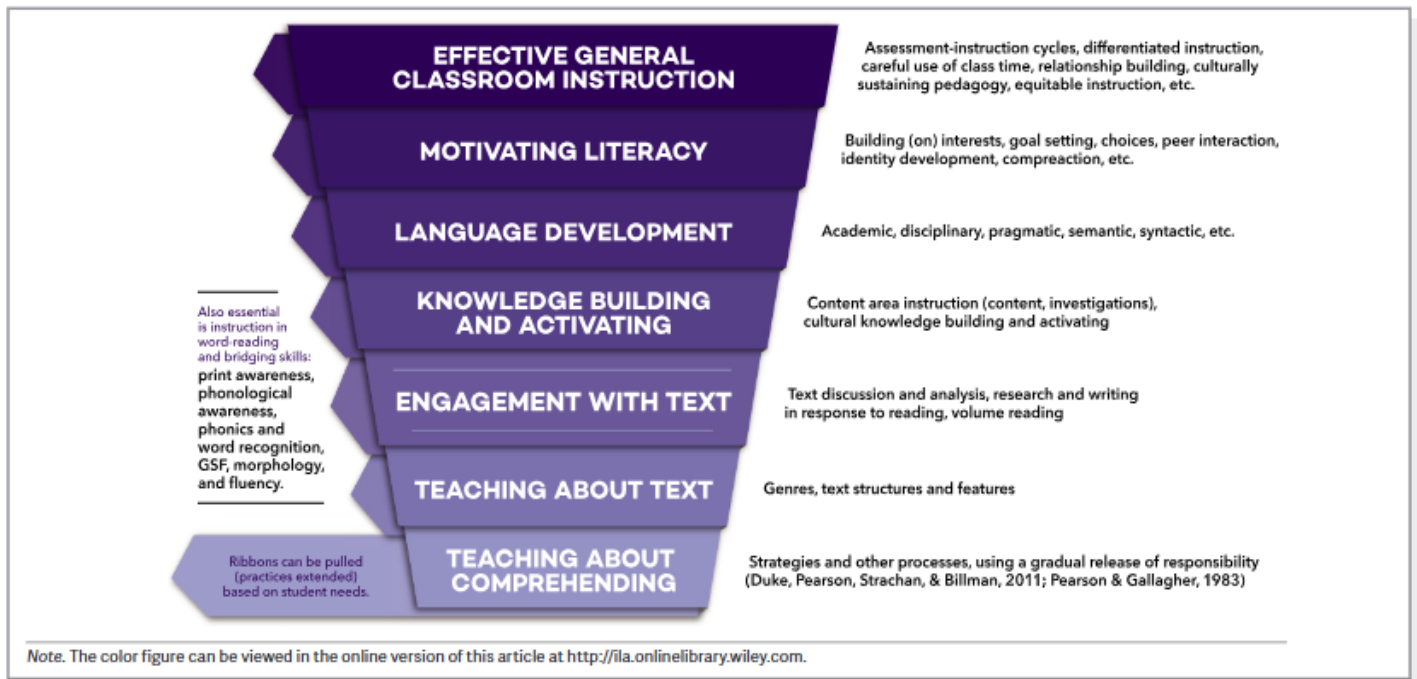
[Explicit Vocabulary Instruction to Build Fair Access for All Learners](#)



## 7. Comprehension

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>Strategy instruction is most effective when strategies are explicitly taught (National Institute of Child Health and Human Development, 2000; Duffy, 2002) in the context of actual reading. This direct style of instruction should involve explaining the strategy as well as modeling or demonstrating how and when to use (Dewitz, Jones, &amp; Leahy, 2009).</p>	<p><b>Open Court Reading</b> teaches critical comprehension strategies and integrates this instruction with close reading strategies. The goal is not just to teach strategies but also to give students the responsibility for applying those strategies to new text. Strategies help students to reflect on their understanding as they read—in other words, to stop and make sense of text. Comprehension instruction begins in grade K, with teachers modeling the use of strategies. As students progress through the grades, they learn to use strategies intentionally and independently. They also dig deeper into the meaning of the text using close reading strategies in order to access complex text. The emphasis shifts to gaining a more focused understanding of the text through its structure, literary techniques, language, and the writer’s craft.</p>	<p><b>Pro Tip!</b>  <b>Teach comprehension through knowledge building!</b>            Background knowledge can significantly influence reading comprehension, demonstrating that comprehension is not determined by decoding skills alone but is also shaped by what readers already know about a topic.</p> <p><b>Scan here for classroom examples and modeling:</b></p> <div style="display: flex; justify-content: space-around;">    </div> <div style="display: flex; justify-content: space-around;"> <span>Scan Me</span> <span>Scan Me</span> <span>Scan Me</span> </div>

### A Layered Model of Effective Comprehension Instruction



Watch & Learn with  
 Literacy Expert Dr. P.  
 David Pearson





#### Additional Links

- [Comprehension: In Depth](#)
- [Comprehension: In Practice](#)
- [The Science of Reading Comprehension Instruction](#)
- [Improving Reading Comprehension](#)
- [Writing as a Response to Reading](#)
- [Text Dependent Analysis \(TDA\) Toolkit](#)

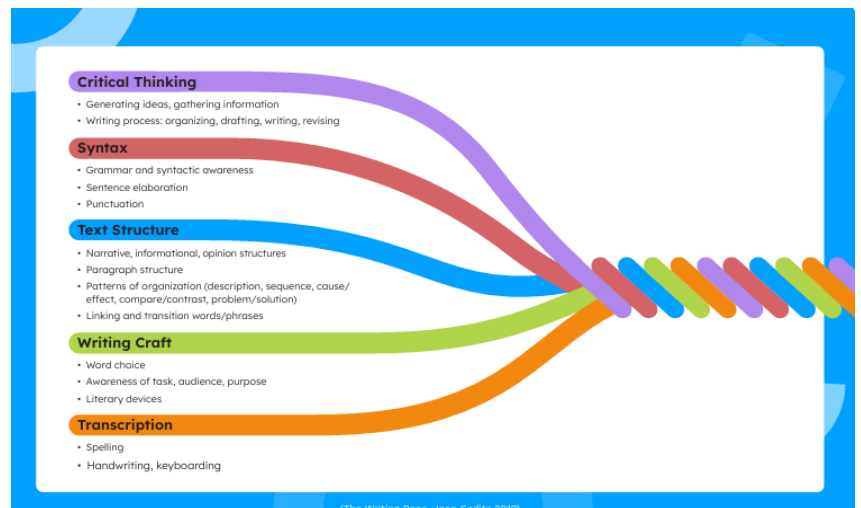


## 8. Writing

What does the research suggest?	How is this implemented in Open Court Reading?	Instructional Supports
<p>Research shows a strong connection between reading and writing. Graham discusses a variety of evidence-based practices for writing instruction that turn students from novice writers into skilled writers (Graham, 2008). These include, but are not limited to, dedicating time to writing, increasing students' knowledge of writing, teaching writing strategies, and teaching basic writing skills to mastery. One example of a skill that should be taught to mastery is handwriting, because it frees the writer to focus on cognitive activities. Ongoing assessment should focus on key features of student writing, such as text organization; clarity of ideas; word usage; sentence variety; legibility; and spelling, grammar, and usage.</p>	<p><b>Open Court Reading</b> teaches students the writing process, the traits or qualities of good writing, and the characteristics of different genres. In addition to learning basic composing processes and strategies—such as pre-writing, drafting, revising, editing, and publishing—students learn skills like handwriting, spelling, sentence construction, grammar, usage, and mechanics. Models of good writing are provided for teaching all phases of the writing process: prewriting, drafting, revising, editing and proofreading, and publishing.</p>	<p><b>Pro Tip!</b>  <b>Strengthen writing by explicitly teaching sentence construction and paragraph structure!</b></p> <p>Provide guided practice with oral rehearsal before writing to reduce cognitive load and improve clarity. When students have explicit instruction in language structures and opportunities for supported practice, their expressive writing becomes more coherent, detailed, and confident.</p> <p><b>Scan here for classroom examples and modeling:</b></p> <div style="display: flex; justify-content: space-around;">    </div> <div style="display: flex; justify-content: space-around;"> <span>Scan Me</span> <span>Scan Me</span> <span>Scan Me</span> </div>

“students’ comprehension of science, social studies, and language arts texts improved when they wrote about what they read, including writing personal reactions, analyzing and interpreting the text, writing summaries and notes, and answering and creating questions about text in writing.”

— Joan Sedita, *The Writing Rope: A Framework for Explicit Writing Instruction in All Subjects*



### Additional Links

[The Writing Rope](#)

[Writing Instruction in the Age of AI](#)

[Learning to Write and Writing to Learn](#)

[The Power of Talk in a Writing Workshop, K-5.](#)

[Teaching Elementary School Students to Be Effective Writers](#)

**The Writing Rope**

The Strands That Are Woven Into Skilled Writing (Sedita, 2019)

**Section 7:**  
**DIBELS Acadience and The Science of Reading**

*Early Literacy Assessment & Progress Monitoring, Grounded in the Science of Reading*

DIBELS / Acadience is a Universal Screener aligned to the Science of Reading that measures the essential foundational skills identified by scientific research, such as phonemic awareness, phonics, fluency, and comprehension. DIBELS Acadience also provides data for teachers to monitor student progress and use the results to inform instruction and intervene with students who are at risk.

**Key Connections to the Science of Reading:**

- **Preventive Focus:** Acadience directly measures the "Big 5" essential reading skills—phonemic awareness, phonics, fluency, vocabulary, and comprehension—identified by research.
- **Reliable Screening:** As a "gold standard" for early identification, Acadience allows educators to identify at-risk students early (often in Kindergarten), which is crucial for preventing later reading difficulties.
- **Progress Monitoring:** The measures are designed for brief, frequent, and repeated administration to track student progress in real-time, allowing teachers to adjust instruction based on data.
- **Validation:** The assessments are empirically validated and research-based, with benchmarks that indicate whether a student is on track for reading success.

**Science of Reading Basic Early Literacy Skills & DIBELS / Acadience Measures**

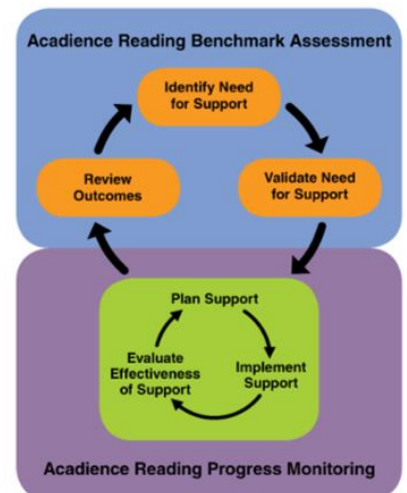
Basic Early Literacy Skills	Acadience Reading Measures
Phonemic Awareness	First Sound Fluency (FSF) Phoneme Segmentation Fluency (PSF)
Alphabetic Principle and Basic Phonics	Nonsense Word Fluency (NWF) –Correct Letter Sounds –Whole Words Read
Advanced Phonics and Word Attack Skills	Oral Reading Fluency (ORF) –Accuracy
Accurate and Fluent Reading of Connected Text	Oral Reading Fluency (ORF) –Correct Words Per Minute –Accuracy
Reading Comprehension	Maze Oral Reading Fluency (ORF) –Correct Words Per Minute –Retell Total/Quality of Response

**Building futures with an Outcomes Driven Model:**

Using DIBELS / Acadience with an Outcomes-Driven Model allows educators to view student data through an overarching framework comprised of 5 decision-making steps designed to answer specific questions about a student’s early literacy achievement and growth.

**Outcomes-Driven Model Steps:**

1. Identify need for support (DIBELS / Acadience Benchmark Assessments)
2. Validate need for support (Consider any additional relevant data points)
3. Plan and implement support (Whole & Small Group Core Instruction, Interventions, Enrichment)
4. Evaluate and modify support (DIBELS / Acadience Progress Monitoring)
5. Review outcomes (Ongoing review of data to modify and adjust instruction as needed)



## Section 8: What is the Science of Writing

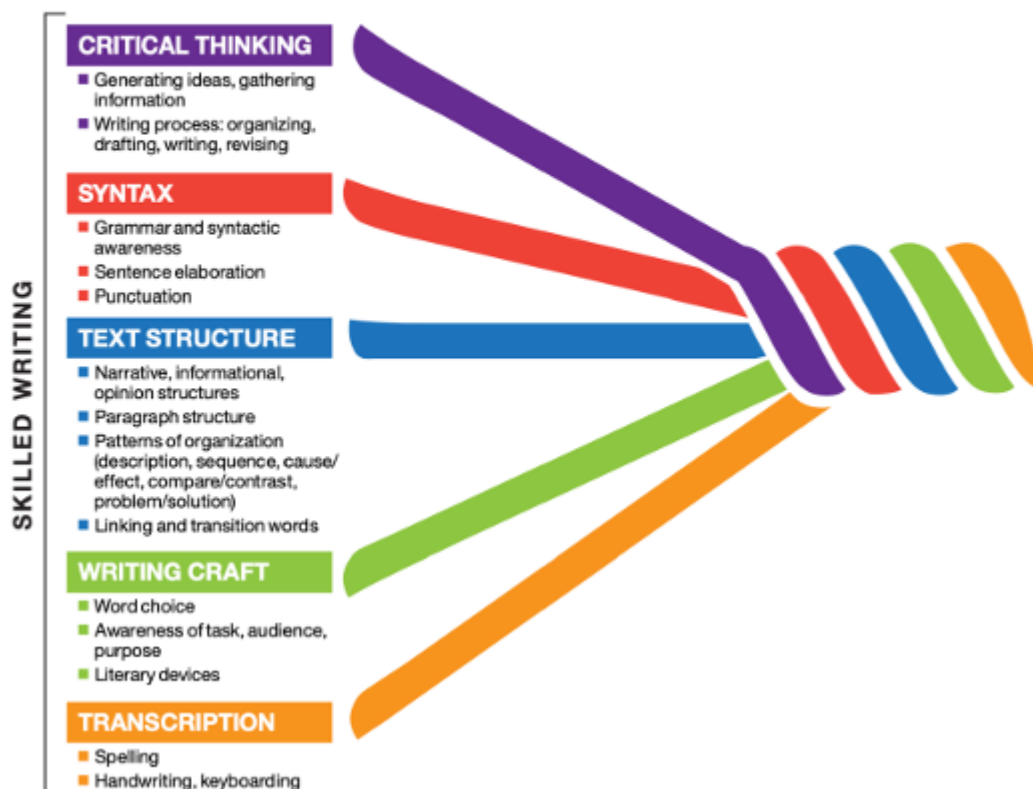
The Writing Rope: A Framework for Explicit Writing Instruction in all subjects by Joan Sedita provides a comprehensive, research-based model for teaching writing across all subjects and grade levels.

The framework integrates five key components...

1. critical thinking,
2. syntax (sentence structure),
3. text structure,
4. writing craft,
5. and transcription (spelling/handwriting)

into a cohesive system, offering teachers practical tools like templates and handouts to help students become proficient writers and use writing to learn.

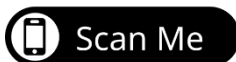
### The Writing Rope The Strands That Are Woven Into Skilled Writing (Sedita, 2019)



[Click Here to Read the Full Writing Rope Article](#)

[Click Here for Additional Information and Teaching Resources](#)

*Let's Here from an Expert: Joan Sedita is the founder and president of Keys to Literacy*



## Section 9: What is Structured Literacy?

Structured Literacy is an approach to teaching oral and written language, rooted in the Science of Reading, that integrates listening, speaking, reading, and writing. The primary principles of Structured Literacy include systematic, cumulative, explicit, sequential, multimodal, and diagnostic features. Structured Literacy is not one particular program or method; instead, it guides how the critical components of literacy are taught.

### Principles of Structured Literacy

- **Systematic** teaching means that instruction follows a planned, logical sequence. Developmental skills move from simple to complex.
- **Cumulative** means that each skill builds on concepts previously learned, building upon mastery of prior skills before advancing to more complex tasks.
- **Explicit** teaching means that key skills are directly taught, modeled, and clearly explained, in other words, direct instruction.
- **Sequential** instruction is the orderly presentation of concepts in a series of connected lessons. A sequential approach presents material in a logical order for introducing, reviewing, and practicing concepts; it builds on previously taught material.
- **Multimodal** teaching means matching instructional delivery with the most appropriate mode of learning for the student. Carreker and Birsh (2018) defined multimodal as “involving multiple sensory pathways. Multisensory instruction simultaneously engages the student’s visual, auditory, and kinesthetic/tactile senses” (p. 832).
- **Diagnostic** teaching requires continuous monitoring of a student’s progress and then using the information gained to inform instruction.

### Let’s Hear from an Expert!

[Overview of Structured Literacy with Nancy Hennessy, M.Ed., LDT-C](#)

## Structured literacy

Explicit teaching of systematic word identification and decoding strategies



Source: © 2016 Cowen for International Dyslexia Association  
<https://app.box.com/s/2yqu2ke21mxs0hz9l77owdlorgvtesyq>

Scan to Learn More About Structured Literacy:



Scan Me



Scan Me



Scan to Learn More About the Science of Reading:



Scan Me



Scan Me



## Section 10: Structured Literacy vs. The Science of Reading: What's the Difference?

The science of reading is a comprehensive body of research that encompasses years of scientific knowledge and expert opinions across a multitude of fields. This information provides a deeper understanding of how we learn to read, what skills are involved, how they work together, and which parts of the brain are responsible for reading development. From this research, we can identify an evidence-based best practice approach for teaching foundational literacy skills called Structured Literacy.

Structured Literacy is an approach based on the science of reading that prepares students to decode words explicitly and systematically with more difficult concepts building upon one another. This approach is not only specifically helpful for students with dyslexia, but there is also a great amount of evidence that it is effective for every student regardless of their reading level. Literature and studies in the science of reading support this approach and highlight the difference it has for every student in the classroom as they learn how to read.

## Section 11: Why Use Structured Literacy?

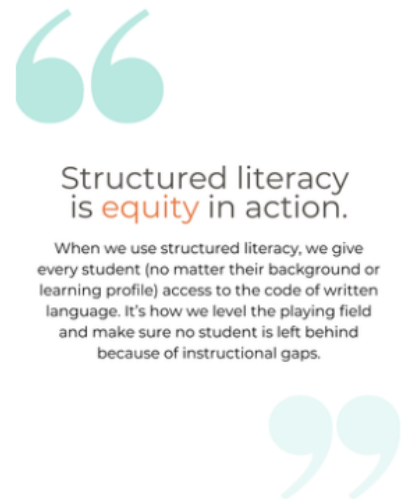
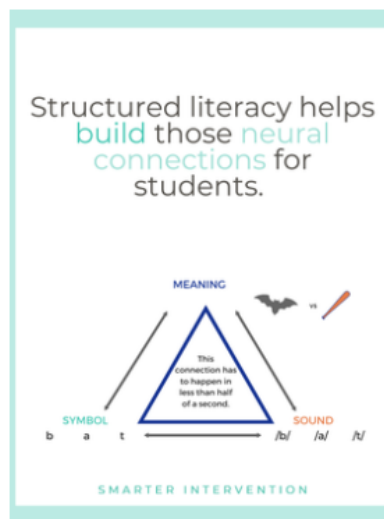
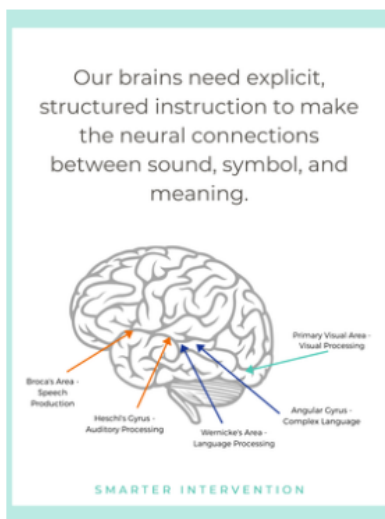
There is a convincing body of empirical research demonstrating strong evidence that successful reading teachers, whether in the general education classroom or in the more specialized settings of intervention, need to have highly specialized knowledge specific to literacy.

A Structured Literacy approach explicitly teaches systematic word identification and decoding strategies, which benefit **all** students but are essential for those with **dyslexia**.

Structured Literacy also provides emphasis on important foundational skills instruction; explicit, direct instruction from a teacher; and a continuum of assessments including universal screeners, diagnostic assessments, progress monitoring, and summative assessments.

### Let's Hear from an Expert!

[Explicit instruction expert, Dr. Anita Archer, provides the rationale and overview of explicit instruction and its benefit to students](#)



**Why is Structured Literacy a Game-Changer for Every Student? Scan Here to Learn More:**



Scan Me



Scan Me



Scan Me



Scan Me

## Section 12: What are the Science of Reading and Structured Literacy Requirements for Pennsylvania Educators?

Pennsylvania's Structured Literacy requirements, driven by Senate Bill 315 and Act 135, mandate Pennsylvania Department of Education approved professional development for educators in evidence-based reading instruction, focusing on phonological awareness, phonics, fluency, vocabulary, and comprehension.

### Pennsylvania Senate Bill 315

Article XV-N – Evidence-Based Reading Instruction – is amended (as of November 2025) to establish new requirements regarding evidence-based reading instruction curricula and professional development.

New requirements for school districts, intermediate units, area career and technical schools, charter schools, cyber charter schools, and regional charter schools:

- By March 31, 2026, report to PDE the reading instruction curricula in use by the school entity during the 2025-2026 school year.
- No later than the beginning of the 2027-2028 school year: Adopt an evidence-based reading instruction curriculum.
- Approve a professional development training program from the list developed by PDE and demonstrate that each educator is in the process of completing the approved professional development.

**Pennsylvania Act 135** of 2024 (Act 135) specifies that to ensure that school personnel have the knowledge and skill to teach all students to read, the Pennsylvania Department of Education (PDE) will develop and maintain a list of structured literacy professional development that meets the following requirements:

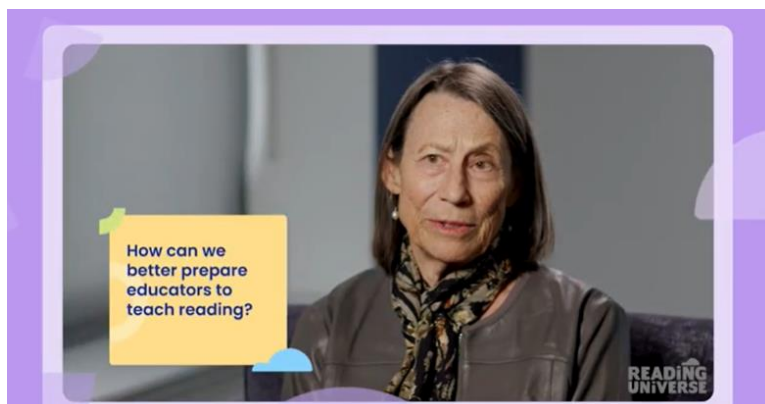
- Evidence-based intervention practices in structured literacy
- Explicit and systematic instruction in phonological and phonemic awareness
- Includes the alphabetic principle, decoding, encoding, fluency, and vocabulary
- Includes reading comprehension and building content knowledge

### Pittsburgh Public Schools

Pittsburgh Public Schools intends to utilize the Structured Literacy Courses provided by the Pennsylvania Department of Education Standards Aligned System (PDE SAS) to fulfill the professional development requirement outlined in PA Senate Bill No. 315, which specifies that ELA teachers complete an approved professional development training program from the list provided by the Pennsylvania Department of Education.

### Let's Hear from an Expert!

How Can We Better Prepare Educators to Teach Reading with  
Dr. Louisa Moats



**Just about all children can be taught to read and deserve no less from their teachers. Teachers, in turn, deserve no less than the knowledge, skills, and supported practice that will enable their teaching to succeed. There is no more important challenge for education to undertake.**

- *Dr. Louisa Moats*

## Section 13: PDE Structured Literacy Competencies for Educators

Illiteracy and lower reading scores are concerns for K-12 school systems across America. According to the [National Assessment of Educational Progress](#) (NAEP), reading proficiency for 4<sup>th</sup>, 8<sup>th</sup>, and 12<sup>th</sup> graders in U.S. schools has only marginally increased in the past few decades. Fighting illiteracy requires help from all levels of government, with local and state programs providing direct support to students and teachers. Pennsylvania is just one of many states in the U.S. combating illiteracy by offering specific Science of Reading and Structured Literacy training for educators.

### Knowledge & Practice Standards

22 Pa. Code § 49.1 defines “structured literacy” as systematic, explicit instruction that provides a strong core of foundational skills in the language systems of English, integrates listening, speaking, reading, spelling, and writing and emphasizes the structure of language across the speech sound system (phonology), the writing system (orthography), the structure of sentences (syntax), the meaningful parts of words (morphology), the relationships among words (semantics), and the organization of spoken and written discourse.

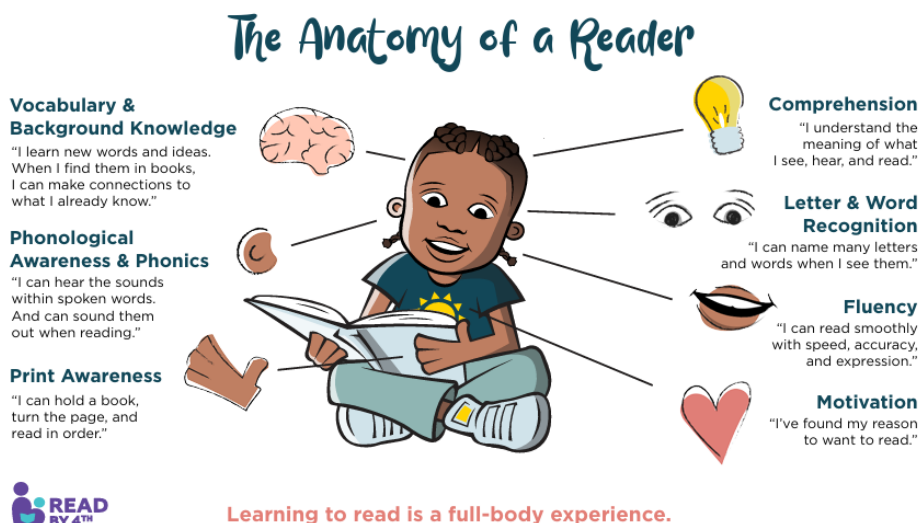
As directed by Act 55, Section 1205.8, these standards should be used to meet the following:

1. Effectively teaching the reading literacy skills of phonemic awareness, phonics, fluency, vocabulary and comprehension;
2. Differentiating instruction for teaching students with advanced reading skills and students with dyslexia or other language-based learning disabilities;
3. Identifying and teaching students with dyslexia and other language based learning disabilities using appropriate scientific research and brain-based multisensory intervention methods and strategies;
4. Implementing reading instruction using high-quality instructional materials;
5. Using developmentally appropriate supports to ensure that students can effectively access reading instruction;
6. Administering universal reading screeners to students.

### PDE Structured Literacy Knowledge and Practice Standards What Should Educators **Know & Implement** in Literacy Classrooms?

Click Here to Access the PDE: [Structured Literacy \(SL\) Program Framework Guidelines](#)

- ❖ Grades PreK – 4 (pages 3-5)
- ❖ Grades 4-8 Educators (pages 6-9)
- ❖ English as a Second Language ESL (pages 10-14)
- ❖ PreK-12 Reading Specialist (pages 15-19)
- ❖ PrK-12 Special Education Teachers (pages 20-23)



## Section 14: The Science of Reading (SOR) and Social Emotional Learning (SEL)

Social and emotional learning (SEL) is an integral part of education and human development. SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions.

SEL advances educational equity and excellence through authentic school-family-community partnerships to establish learning environments and experiences that feature trusting and collaborative relationships, rigorous and meaningful curriculum and instruction, and ongoing evaluation. SEL can help address various forms of inequity and empower young people and adults to co-create thriving schools and contribute to safe, healthy, and just communities. (<https://casel.org/what-is-sel/>)

Social Emotional Learning is intrinsically connected to the Science of Reading, as it cultivates the emotional regulation, motivation, and cognitive focus necessary to support effective literacy development. While the Science of Reading focuses on what must be taught in all literacy classrooms, Structured Literacy provides the best practices for how to teach the essential components, and SEL builds the mental framework—such as self-management and persistence—necessary to engage with challenging tasks and texts, thereby directly improving comprehension, vocabulary, and overall reading achievement.

### 5 Key Connections Between the Science of Reading and Social Emotional Learning

#### 1. **Emotional Regulation and Cognitive Load**

Teaching reading is rocket science and learning to read is not a natural process for students. SEL provides students with skills to manage frustration and maintain focus, allowing their cognitive resources to be used for decoding and comprehension rather than emotional distress.

#### 2. **Intrinsic Motivation**

SEL fosters a growth mindset, which increases a student's desire to persist through challenging reading material, directly impacting academic success in literacy.

#### 3. **Literacy and Empathy Integration**

Teachers can blend these approaches by using reading material to explore emotional vocabulary, character perspectives, and empathy, improving both social-emotional skills and reading comprehension.

#### 4. **Relationship Building and Trust**

A supportive classroom environment, a key aspect of SEL, fosters a safe environment where children are more willing to participate in oral reading and engage in dialogue about texts.

#### 5. **Self-Awareness**

Encouraging students to understand their own feelings and connect them to characters or stories enhances their active engagement with the text.

### How have you intentionally integrated SEL during literacy instruction or at home?

#### Let's Pause & Reflect Using the Links Below:

- Which SEL practices would help your students be successful within the lessons and activities you have prepared?
- What will it look and sound like to use this SEL practice in your context?
- Pittsburgh Public Schools and SEL
- What is the CASEL framework and how is it connected to SEL?
- Promoting SEL skills at home



## Section 15: Science of Reading & Structured Literacy Resources for Educators

### The Science of Reading

- ❖ <https://www.thereadingleague.org/what-is-the-science-of-reading/>
- ❖ <https://amplify.com/blog/science-of-reading/what-is-the-science-of-reading-anyway/>
- ❖ <https://www.improvingliteracy.org/science-of-reading>
- ❖ <https://www.nwea.org/blog/2024/the-science-of-reading-explained/>
- ❖ <https://www.readingrockets.org/classroom/evidence-based-instruction/science-reading>
- ❖ <https://www.gse.harvard.edu/ideas/usable-knowledge/24/06/what-exactly-science-reading>
- ❖ <https://www.lexialearning.com/blog/a-full-breakdown-of-the-science-of-reading-components>

### Structured Literacy

- ❖ <https://dyslexiaida.org/what-is-structured-literacy/>
- ❖ <https://www.readingrockets.org/topics/about-reading/articles/structured-literacy-instruction-basics>
- ❖ <https://www.orton-gillingham.com/what-is-structured-literacy/>
- ❖ <https://www.improvingliteracy.org/resource/features-of-structured-literacy-instruction>

### The Science of Reading and Structured Literacy for New Teachers

- ❖ <https://amplify.com/science-of-reading/new-teachers/>
- ❖ <https://www.pdesas.org/Page/Viewer/ViewPage/60/?SectionPageItemId=13217>

### K-5 ELA Observation Tools: Science of Reading / Structured Literacy Observation Tools & Look fors by Grade Level

- ❖ [K-5 ELA Observation and Feedback Form \(Kindergarten\) FINAL.pdf](#)
- ❖ [K-5 ELA Observation and Feedback Form \(1st Grade\) FINAL.pdf](#)
- ❖ [K-5 ELA Observation and Feedback Form \(2nd Grade\) FINAL.pdf](#)
- ❖ [K-5 ELA Observation and Feedback Form \(3rd Grade\) FINAL.pdf](#)
- ❖ [K-5 ELA Observation and Feedback Form \(4th Grade\) FINAL.pdf](#)
- ❖ [K-5 ELA Observation and Feedback Form \(5th Grade\) FINAL.pdf](#)
- ❖ [Word Documents](#)

### Science of Reading & Structured Literacy Resources for Parents / Guardians

- ❖ [How Parents Can Support Science of Reading Instruction](#)
- ❖ [Why Reading Is Not a Natural Process](#)
- ❖ [Ten Myths About Learning to Read](#)
- ❖ [National PTA - Parents' Guide to Student Success](#)
- ❖ [Reading 101: A Guide for Parents](#)
- ❖ [Reading Instruction at Your Child's School](#)
- ❖ [A GUIDE TO READING ADVOCACY](#)
- ❖ [Literacy at Home](#)
- ❖ [Parent Introduction to the Science of Reading](#)
- ❖ [How We Learn to Read](#)
- ❖ [The Reading Brain | How We Learn To Read](#)
- ❖ [The Simple View of Reading](#)
- ❖ [How Can I Help My Reader at Home?](#)

## Section 16: Quizzes

Test Your Knowledge of the **Science of Reading /Structured Literacy** & the **Science of Writing** with the quizzes below.



- ♣ **The Science of Reading & Structured Literacy:** <https://forms.office.com/r/XWmKmk9xg8>
- ♣ **Phonological & Phonemic Awareness:** <https://forms.office.com/r/1vsxuQpHxY>
- ♣ **Phonics:** <https://forms.office.com/r/aTPLYHD6au>
- ♣ **Fluency:** <https://forms.office.com/r/5bFixhwyh6>
- ♣ **Vocabulary:** <https://forms.office.com/r/tKvW4J3aXC>
- ♣ **Comprehension:** <https://forms.office.com/Pages/ResponsePage.aspx?id>
- ♣ **The Science of Writing:** <https://forms.office.com/Pages/ResponsePage.aspx?id>

### Notable Quotes:

"Teaching reading IS rocket science," because reading is not an automatically acquired skill; it must be taught by professionals with a deep understanding of the components of language. – Dr. Louisa Moats

"Informed teachers are our best insurance against reading failure. While programs are very helpful tools, programs don't teach, teachers do". – Dr. Louisa Moats

"Teachers are the most important factor in student success. Informed teachers can explain language to students, including sounds, spellings, and word meanings that might be confusing". – Dr. Louisa Moats

"The brain is not wired to read. Kids must be explicitly taught how to connect sounds with letters — phonics". – Dr. Louisa Moats

95% of students can learn to read when provided with effective, evidence-based instruction, particularly rooted in the "Science of Reading". While this high percentage of children are capable of reading, only about 32% to 35% of U.S. students actually read proficiently by 3rd grade. The gap exists because many struggling readers are "instructional casualties" who have not received the systematic, explicit instruction they need. – Dr. Louisa Moats

"Studies suggest that summarization should be taught over a long period of time to students from kindergarten to 12th grade; teachers should model this strategy, and students should practice it using a variety of text from different content areas" — Joan Sedita

Many educators who are knowledgeable about effective reading instruction are not able to identify the components of skilled writing or essential elements of a curriculum for teaching writing. — Joan Sedita

"Extensive research confirms that students with higher social and emotional learning (SEL) competencies achieve better academic results, including an average 11-percentile-point gain in reading and math, while also experiencing lower rates of suspensions and absenteeism." - <https://casel.org/fundamentals-of-sel/what-does-the-research-say/>