

## Strand by Strand: Making the Science of Reading Work in Middle Grades Classrooms

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Middle school classrooms are filled with students who can read the words on the page but cannot yet read the world in front of them. Too many adolescents move toward high school and adult life without the literacy skills needed to navigate workplace policies, medical forms, contracts, or complex digital content. Their futures narrow not because they lack potential, but because they lack access.

### The Science of Middle Level Literacy

Across North Carolina, middle grades teachers share a common concern: their students are trying, but many are not yet equipped to meet the increasing demands of complex texts. To understand why, we must look to the Simple View of Reading. This research-validated model defines reading comprehension as the product of word recognition and language comprehension (Gough & Tunmer, 1986).

As the Senior Literacy Specialist at the North Carolina Center for the Advancement of Teaching (NCCAT), I design the Science of Reading for Secondary Classrooms Badging Program. Through this work, it has become clear that middle grades reading challenges are rarely about effort. Instead, they are often strand issues—gaps in vocabulary, sentence structure, and background knowledge that persist long after the elementary years. In the middle grades, language comprehension becomes the primary driver of reading success. When

we shift our perspective, we see that the Science of Reading is not an elementary intervention or a remediation plan, but a developmentally responsive framework for adolescent learners.

### Making the Disconnect Visible: Scarborough's Reading Rope

Scarborough's Reading Rope provides a useful framework for this work (Scarborough, 2001), illustrating how foundational strands must become increasingly automatic and strategic to result in skilled reading. While often associated with early childhood, the Rope remains just as critical in grades six through eight for helping educators identify where instruction can make the greatest difference.

Montgomery County Schools instructional facilitator Kim Simpson describes this shift: "Many secondary students can read words accurately but struggle to construct meaning. Applying the Reading Rope at the secondary level makes this disconnect visible and provides teachers with a shared framework for addressing it intentionally" (K. Simpson, personal communication).

### What Middle Grades Students Need Most

As students move into middle school, texts become increasingly complex. Sentences grow longer, and vocabulary becomes more technical. This is why morphology plays a

critical role. Morphological instruction offers an efficient way for older students to break complex words into their parts and build vocabulary through meaning rather than memorization. By providing students with these structural tools, educators can reduce cognitive load, allowing students to shift their mental energy from word-level struggle to deep conceptual understanding. Morphology serves as a bridge between vocabulary instruction and background knowledge, supporting students' language comprehension as they engage with complex texts.

Dr. Joanna Perkins, director of K–12 curriculum support in Montgomery County Schools, notes that while explicit vocabulary and morphology instruction has long been important, knowledge-building curricula have made this work more systematic by exposing students to a wider range of topics and intentionally strengthening background knowledge (J. Perkins, personal communication).

### **Five Micro-Routines That Strengthen the Rope**

Teachers are not expected to address every strand at once. The most important step is recognizing that older readers need support across multiple parts of the Rope. These brief routines fit naturally into lesson openings, transitions, or closures.

- **Student-friendly definitions** ask students to explain academic vocabulary using accessible language.
- **Word study routines** teach students to break words into prefixes, roots, and suffixes.
- **Echo or choral reading** builds fluency and reduces cognitive load, particularly in dense informational text.

- **Sentence combining and de-combining** help students understand how ideas work together within complex sentences.
- **GIST statements** require students to summarize a paragraph in ten to twenty words, focusing on essential meaning.

In classrooms where these routines are used consistently, teachers are already seeing shifts in student confidence and engagement. Sarah Mundhenk-Tager of Valley Springs Middle School has seen the impact of these practices firsthand: “Students have become more confident and engaged with vocabulary, often using new words in conversation and writing” (S. Mundhenk-Tager, personal communication).

### **Literacy as a Tool for Every Discipline**

A common misconception in middle school is that literacy belongs solely to the English department. As students move through their day, however, they must navigate the distinct language and text structures of each discipline. In the middle grades, the Science of Reading shows up as disciplinary literacy.

A science teacher is not teaching reading in the traditional sense, but teaching students how to read like a scientist by analyzing lab reports, deconstructing technical Greek and Latin roots, and navigating dense informational text. When teachers across content areas use shared micro-routines, they create predictable and supportive learning environments. This consistency reduces cognitive load, allowing students to focus less on decoding text and more on mastering content.

### **District Partnership Snapshot: Buncombe and Lincoln County Schools**

Buncombe and Lincoln County Schools have partnered with the North Carolina Center for the Advancement of Teaching to bring the Science of Reading for Secondary Classrooms Professional Learning Series to their educators.

In Buncombe County, this work was prompted by Phil Justen, English Language Arts and Social Studies curriculum specialist. District data challenged the long-held assumption that students arrive in middle school already knowing how to read, revealing instead that many still struggle with foundational skills needed to access grade-level texts. Under his leadership, middle school teacher leaders were intentionally selected to participate in the NCCAT series and serve as literacy leaders within their schools. The goal is to sustain this momentum by having two to three Science of Reading-trained teachers in every middle school.

Lincoln County Schools entered the partnership after Heather Myers, director of readiness and academic support, identified a need for greater coherence across grade levels. Recognizing the success of the Science of Reading in elementary classrooms, Myers sought to provide secondary English Language Arts teachers with similar explicit instruction in foundational literacy skills. Under her guidance, teacher leaders are redesigning middle school morphology and vocabulary instruction to align with North Carolina's revised English Language Arts standards.

### **Secondary Literacy as a Matter of Equity**

Middle grades literacy instruction matters because this is the point at which access often begins to narrow. Literacy inequity is magnified as students move from the protected structures of elementary classrooms to middle grades settings that

demand greater independence and rely more heavily on whole-group instruction. Too often, students are expected to read complex texts independently before they have the tools to do so, a gap that reflects a lack of teacher training in evidence-based reading frameworks rather than a lack of student effort. When educators are not prepared to use models such as Scarborough's Reading Rope diagnostically, reading challenges are more likely to be framed as student deficits rather than as instructional needs. A diagnostic lens shifts the question from "What is wrong with the student?" to identifying which strands need strengthening to move students toward independence with complex texts and deeper comprehension. Interrupting this pattern requires districts to invest in sustained, evidence-based secondary literacy professional learning for all teachers. When districts make this commitment, they honor literacy as a right by ensuring instruction is consistent, diagnostic, and accessible for all students.

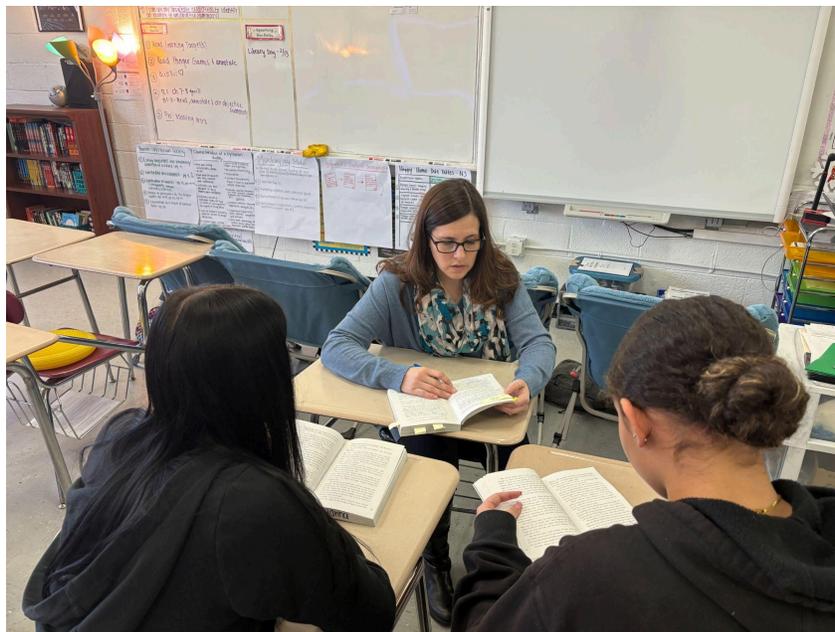
### **A Hopeful Path Forward**

Text must remain at the center of instruction. Vocabulary, grammar, and fluency instruction should grow directly from the texts students are reading rather than isolated lists. As Sarah Mundhenk-Tager emphasizes, these routines are accessible to teachers across subjects because they integrate seamlessly into the existing curriculum (S. Mundhenk-Tager, personal communication).

For educators doing this work daily, the impact on their practice is as significant as the growth they see in their students. Reflecting on this shift, Tiffany Wooten, an educator at North Buncombe Middle School, shared, "It is very worth the time, and it has made me a better teacher" (T. Wooten, personal communication).

When these practices become standard classroom habits, instruction moves beyond teaching a single text to strengthening the strands of literacy. In

doing so, we give students the confidence and skills they need to navigate complex texts and the world beyond the classroom.



## References

Scarborough, H. S. (2001). *Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice*. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 1, pp. 97–110). Guilford Press.

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## **Resource Set: Step-by-Step Micro-Routines for Middle Grades**

### **Student-Friendly Definitions**

**Define:** Create a short explanation using a phrase such as “something that...” or “someone who...”

**Connect:** Add a simple example connected to the text or to students’ lives.

**Use:** Have students write a sentence that shows understanding.

**Example:** “Someone who is reluctant does not really want to do something and is dragging their feet a little.”

### **Word Surgery**

Underline the prefix.

Circle the root.

Box the suffix.

Explain the meaning of each part.

Combine the meanings to determine the meaning of the whole word.

### **Echo Reading**

Model the sentence or short paragraph aloud.

Have students track the text with a pencil.

Students echo the reading.

Check understanding with a quick question.

### **Sentence De-Combining**

Break a long sentence into shorter sentences from the text.

Label each idea, such as cause, effect, detail, result, or time.

Discuss how the ideas connect.

### **Sentence Combining**

Provide two or three short sentences from the text.

Have students merge them into one clear academic sentence.

Compare student versions with the author’s sentence.

### **GIST Statements**

Read one paragraph.

Shrink the meaning to ten to twenty words.

Share and compare responses for accuracy and clarity.

### **Questions for District Leaders to Consider**

The following questions are offered as reflection points for district leaders.

- Do we have a shared, evidence-based framework guiding literacy instruction in the middle grades, or does support vary by school or classroom?
- How are we helping middle grades teachers use literacy frameworks diagnostically to identify instructional needs rather than relying on assumptions or labels?
- Is our secondary literacy professional learning sustained and coherent over time, or driven by short-term initiatives?

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Kendra's research focuses on the intersection of literacy and technology, examining how digital integration transforms student learning. Her work has been published in ASCD, Edutopia, and MiddleWeb. She holds a BA in English and Professional Writing from Western Carolina University and an MA in Online Learning and Professional Development from Appalachian State University.

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