

# PowerUp<sup>®</sup> &

The Science of Reading for Nevada

### What is the Science of Reading?



The Science of Reading is evidence from the accumulation of five decades of research on reading acquisition and instruction that has been conducted using gold-standard methodologies. This evidence has:

- Established our understanding of how students learn to read
- 2 Identified effective instructional practices, and
- 3 Clarified instruction for students who have difficulty learning to read.

# Why is the Science of Reading important to students in grades 6–12?

Learning to read is not a natural act; rather, it requires explicit, systematic, and cumulative instruction that is also diagnostic and responsive. The science of reading solidifies an understanding of how language and writing systems work by informing the why, what, and how of effective instruction, both including and going beyond phonics. Although instruction informed by reading science is necessary for all students, it is essential for students who are at risk for reading difficulties due to dyslexia, developmental language

disorder, deficits in executive function, status as an English Learner, or other factors. This approach can be especially important to struggling readers in grades 6–12 given the diversity of adolescents' learning needs and to ensure instructional time is focused on research-based practices. Ultimately, instruction that is informed by the science of reading is the only proven way to ensure students can become proficient readers and confident learners across the curriculum.





## The Elements of Structured Literacy

How Lexia PowerUp Does It



|  | <b>EVIDENCE</b> The Why   | APPLICATION The What  |
|--|---|---|
|  | The Science of Reading Says   | How Lexia PowerUp Does It   |
| <b>Phonology</b><br>The sound system of<br>language is known as<br>phonology.  | Phonological and phonemic awareness<br>are necessary components in learning<br>to read and are predictive of reading<br>success (Blachman, 1995; Liberman &<br>Liberman, 1990; NICHD, 2000).  | Students build phonological and<br>phonemic awareness activities<br>through activities focused on blending,<br>segmenting, and sound manipulation.  |
| <b>Phonics</b><br>Phonics is a method<br>for teaching word<br>reading by correlating<br>sounds with letters or<br>groups of letters.                               | Proficient reading comprehension relies<br>on automatic associations of sounds<br>and letters. Well supported by research,<br>instruction that matches sounds to<br>letters or groups of letters—phonics—<br>develops accurate decoding and<br>spelling skills (Ehri, 2014; Hoover & Gough,<br>1990; NICHD, 2000; Tremain, 2018). | Students engage in activities that<br>increase their awareness of the<br>orthography of English, such as<br>matching sounds to letters, learning<br>syllable types and rules for syllable<br>division, and building knowledge of<br>reliable spelling patterns. |
| Syllable Knowledge<br>An understanding<br>of six syllable types<br>and rules for syllable<br>division is a necessary<br>component of<br>reading.                   | Instruction that aids students in<br>determining where long words divide<br>into syllables and how vowels in<br>syllables are pronounced is beneficial<br>to fluent reading. When reading is<br>effortless, cognitive resources are<br>available for the reader to focus on<br>meaning (Perfetti, 1985).                          | Students are taught the six<br>orthographic syllable types-closed,<br>open, silent-e, vowel pairs, r-controlled,<br>and consonant-le-that facilitate the<br>accurate recognition of monosyllabic<br>and multisyllabic words.                                    |
| Morphology<br>The study of<br>morphemes, or<br>meaningful units of<br>words, is known as<br>morphology.  | Knowledge of morphemes facilitates<br>decoding and provides a springboard for<br>vocabulary development. Morphology<br>bridges the gap between alphabetic<br>reading (i.e., word-level reading) and<br>comprehension (Adams, 1990).   | Students learn meaningful word parts<br>to support decoding and vocabulary<br>development through activities that<br>teach common prefixes, roots, suffixes,<br>and Greek combining forms.  |
| Syntax<br>Syntax refers to<br>the order and<br>relationships of words<br>in sentences as well<br>as the structure of<br>sentences in oral and<br>written language. | Success with complex texts is<br>dependent on a reader's understanding<br>of sentences with one or multiple<br>clauses (Foorman, Herrera, et al., 2015;<br>Foorman, Koon, et al., 2015).  | Students develop an understanding<br>of syntax through activities that teach<br>them about parts of speech, parts of<br>sentences, and sentence structure and<br>how this structure impacts meaning.  |



#### **EVIDENCE** The Why

#### The Science of Reading Says

As the primary goals of reading and writing are determining and communicating meaning, it is important for students to understand the meanings or shades of meanings of words (NICHD, 2000).

### APPLICATION The What

#### How Lexia PowerUp Does

Students build vocabulary knowledge through Word Study activities that connect decoding and word meaning. Comprehension activities explicitly teach and review key academic vocabulary words to support a deep understanding of texts.

## The Principles of Structured Literacy

How Lexia PowerUp Literacy Does It

**Semantics** 

Vocabulary

semantics.

knowledge and

word relationships

are referred to as

| Explicit   | Systematic  |
|--|---|
| Explicit means that concepts and skills<br>are directly taught and practiced. In<br>PowerUp, students learn skills and<br>concepts explicitly through clear models<br>and targeted practice. | Systematic refers to a logically ordered<br>presentation of concepts and skills that<br>progresses from simple to complex. The<br>PowerUp scope and sequence follows a<br>developmental sequence and orders the<br>concepts and skills that are to be taught<br>from simple to complex. |
| Cumulative   | Diagnostic and Responsive   |
| Cumulative indicates that new learning<br>is built on prior learning. In PowerUp, as<br>foundational concepts and skills are   | Diagnostic and Responsive signify that students' instructional needs are identified, and instruction is designed accordingly. In  |

foundational concepts and skills are taught and practiced to automaticity, students' knowledge continuously increases through the introduction of more complex concepts and skills. Diagnostic and Responsive signify that students' instructional needs are identified, and instruction is designed accordingly. In PowerUp, students' progress is frequently monitored and instruction adapts as needed.



## The Simple View of Reading



Word Recognition Language Comprehension Reading Comprehension

First introduced in 1986, the Simple View of Reading states that reading success is dependent on both word recognition and language comprehension. If a student does not have adequate underlying skills in all of these areas, reading success is compromised (Gough & Tunmer, 1986; Hoover & Gough, 1990). Adolescents reading below grade level struggle with reading for a variety of reasons: inefficient wordrecognition skills, insufficient syntactic knowledge, a lack of adequate reading skills and strategies, or, most likely, a combination of these reasons.

To support struggling adolescent readers who have varied skill profiles, PowerUp has an auto-placement component that assesses students' strengths and weaknesses to provide 180 unique placement profiles across the three strands of the program: Word Study, Grammar, and Comprehension. Students progress through each strand at their own pace.

In Word Study, students learn skills and concepts that advance their accuracy, automaticity, and fluency by focusing on the reliable and recurring pattern in spoken and written words. In the Grammar strand, students improve written composition and reading comprehension skills by focusing on how written language works. And in the Comprehension strand, students learn skills and strategies that help them analyze literary and informational texts of increasing complexity for deeper meaning and understanding.





# Lexia

Lexia is the Structured Literacy expert. For more than 30 years, the company has focused solely on literacy, and today provides a full spectrum of solutions for both students and teachers. With robust offerings for differentiated instruction, personalized learning, assessment, and professional learning, Lexia helps more learners read, write, and speak with confidence.

lexialearning.com



#### a **cambium** company

© 2022 Lexia Learning LLC, a Cambium Learning® Group company. Lexia® and other trademarks, names, and logos used herein are the property of Lexia Learning and/or its subsidiaries, and are registered and/or used in the United States and other countries. Additional trademarks included herein are the property of their respective owners