

The Science of Reading: Learning to Read

Literacy Challenges: What The Data Shows

Children who do not develop good word recognition skills in first grade begin to **dislike reading**.

They **read less** than classmates who are strong decoders.

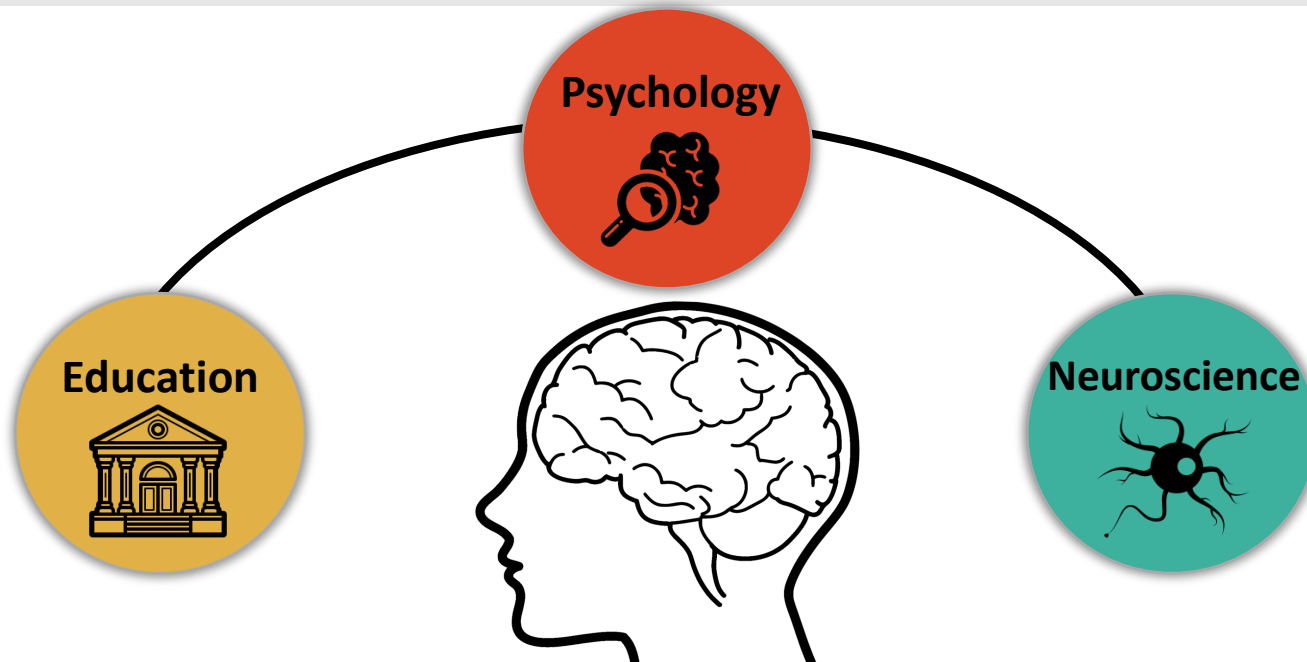
They struggle to read **increasingly difficult texts** as they pass from grade to grade.

They do not gain as much **vocabulary, background knowledge, and information** about texts.

The Science of Reading

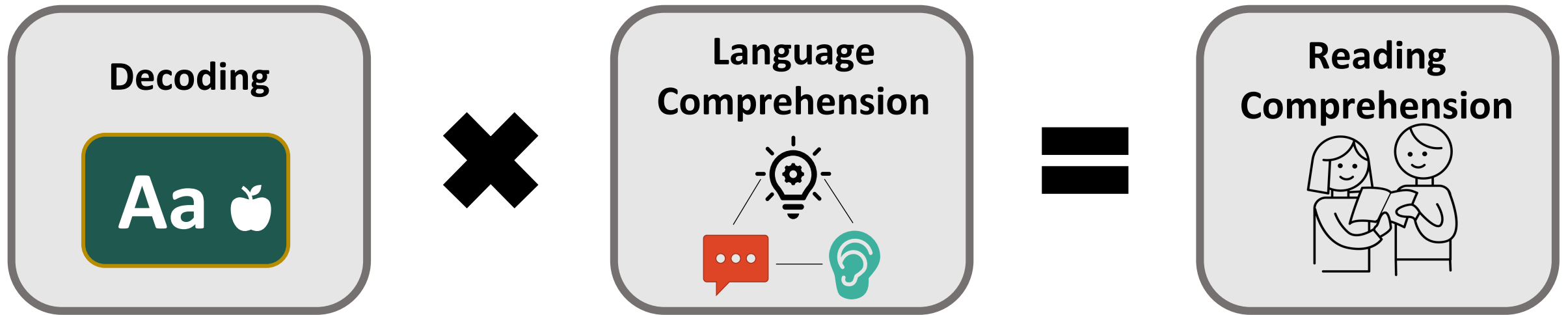
How can teachers address these challenges? The answer lies in the science!

Research from multiple fields—education, psychology, and neuroscience—confirms a key set of ideas about how people learn to read and the teaching practices that support these ideas.



**These evidence-based ideas
and teaching practices are
referred to as
“the science of reading.”**

The Simple View of Reading



From Gough, P. B., & Tunmer, W. E. (1986). The Simple View of Reading. The British Journal of Educational Psychology, 56(2), 162-181; as adapted in ReadingUniverse.org.

Defining Reading Comprehension



Reading comprehension results from decoding efficiently and having the ability to understand language—taking words and combining them with what you already know to learn more about a subject, develop a meaningful interpretation of a story, or otherwise make sense of the text.

From Gough, P. B., & Tunmer, W. E. (1986). The Simple View of Reading. The British Journal of Educational Psychology, 56(2), 162-181; as adapted in ReadingUniverse.org.

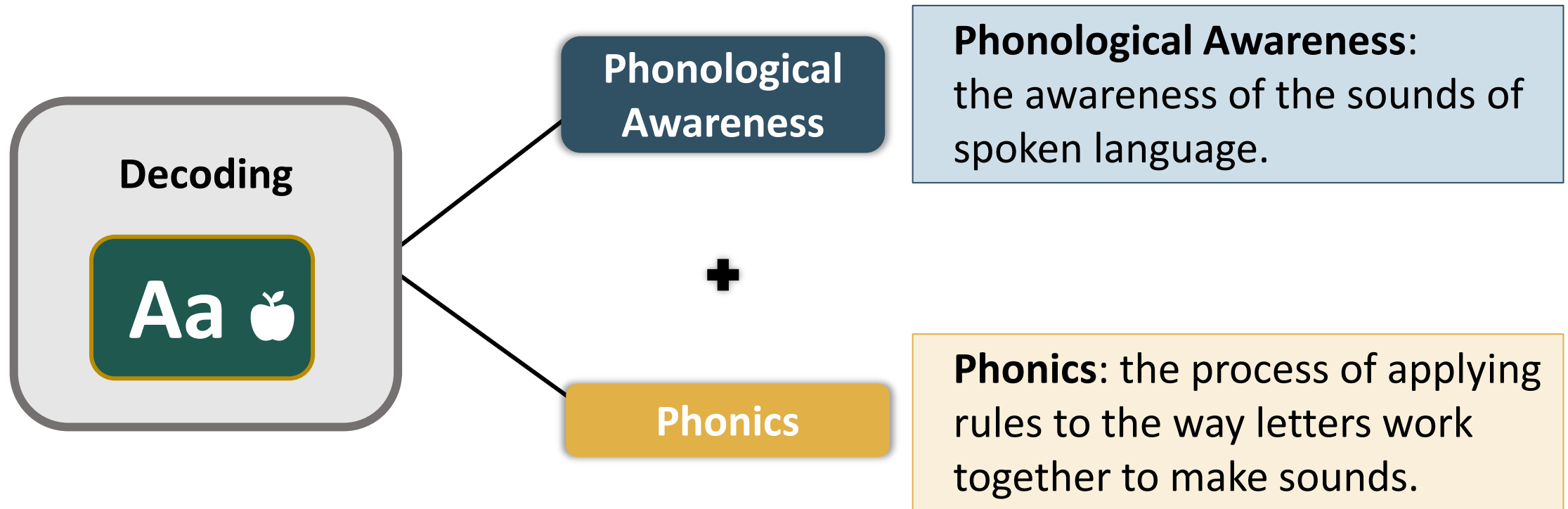
Defining Decoding



Decoding: Using knowledge of the written symbol system (especially letter-sound relationships and patterns in spelling) to translate print into speech.

From Gough, P. B., & Tunmer, W. E. (1986). The Simple View of Reading. The British Journal of Educational Psychology, 56(2), 162-181; as adapted in ReadingUniverse.org.

Key Parts of Decoding



Adapted from Gough, P. B., & Tunmer, W. E. (1986). The Simple View of Reading. The British Journal of Educational Psychology, 56(2), 162-181; as adapted in ReadingUniverse.org.

Breaking Down Decoding

The two main components of **decoding**, phonological awareness and phonics, can be broken down even more into targeted skill areas.

Phonological Awareness

Phonemic Awareness

Syllabic Awareness

Onset and Rime

Articulation

Phonics

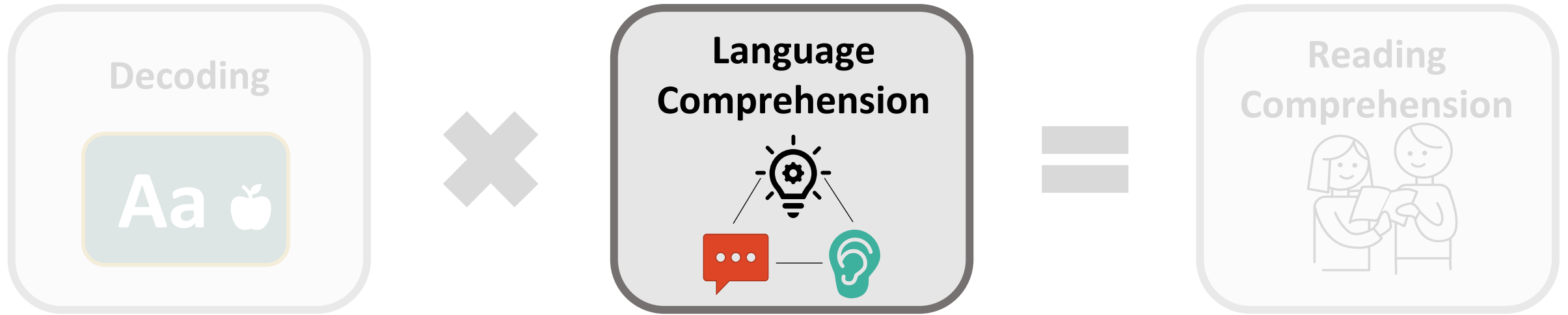
Alphabetic Knowledge

High-Frequency Words

Beginning Phonics
(words with short vowel sounds)

Advanced Phonics
(words with long vowel sounds
and beyond)

Defining Language Comprehension

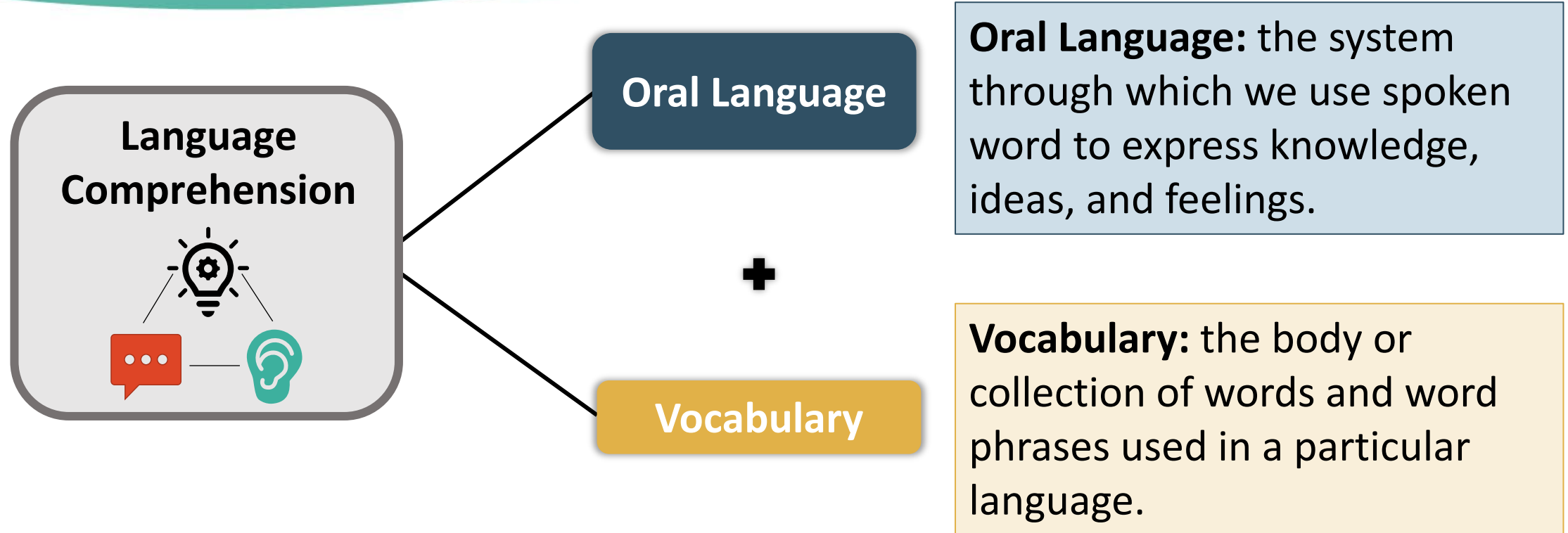


Language Comprehension: The ability to express and comprehend spoken language through development of vocabulary and knowledge of word parts and uses.

Example: a beginning reader sees the letters c-a-t, identifies the corresponding sounds and combines them to pronounce “cat,” and recognizes they said the word for the furry animal that says “meow.”

From Gough, P. B., & Tunmer, W. E. (1986). The Simple View of Reading. The British Journal of Educational Psychology, 56(2), 162-181; as adapted in ReadingUniverse.org.

Key Parts of Language Comprehension



Teachers can develop students' language comprehension through vocabulary instruction, read-alouds, and guided reading.

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Breaking Down Language Comprehension

The two main components of **language comprehension**, oral language and vocabulary, can be broken down even more into targeted skill areas.

Understanding these can help identify students' strengths and weaknesses and respond with targeted interventions.

Oral Language & Vocabulary

Expressive Language (speaking)

Receptive Language (listening)

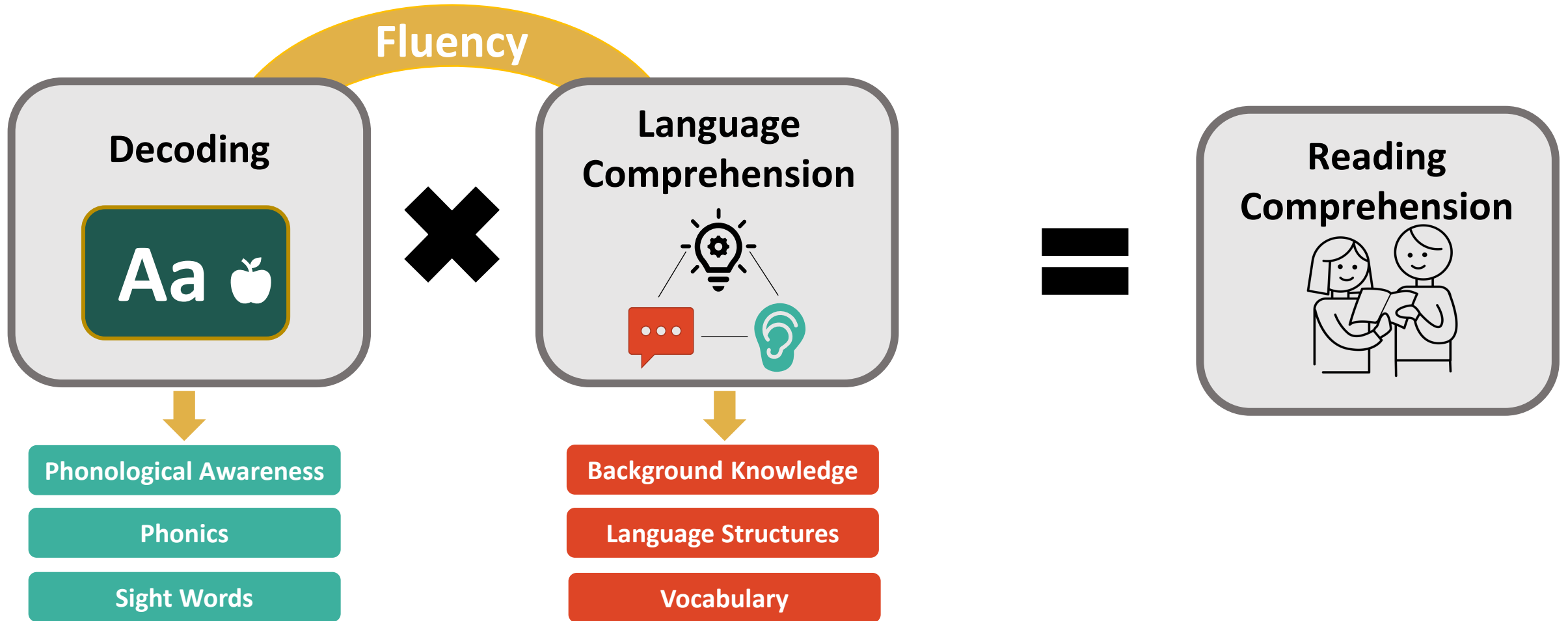
Knowledge of Words

Morphology

Syntax

Pragmatics

What About Fluency?



What About Fluency?

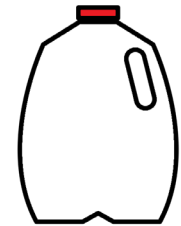
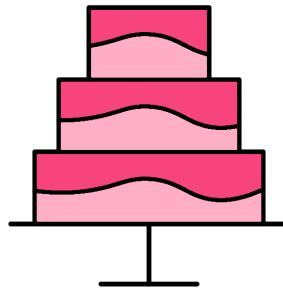
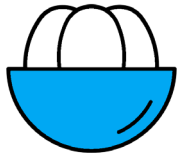


Meaning can break down if readers read too slowly or too fast.

Oral fluency—the ability to read text accurately, with sufficient speed, pitch, stress, timing, and expression—helps readers combine decoding and comprehension to understand text.

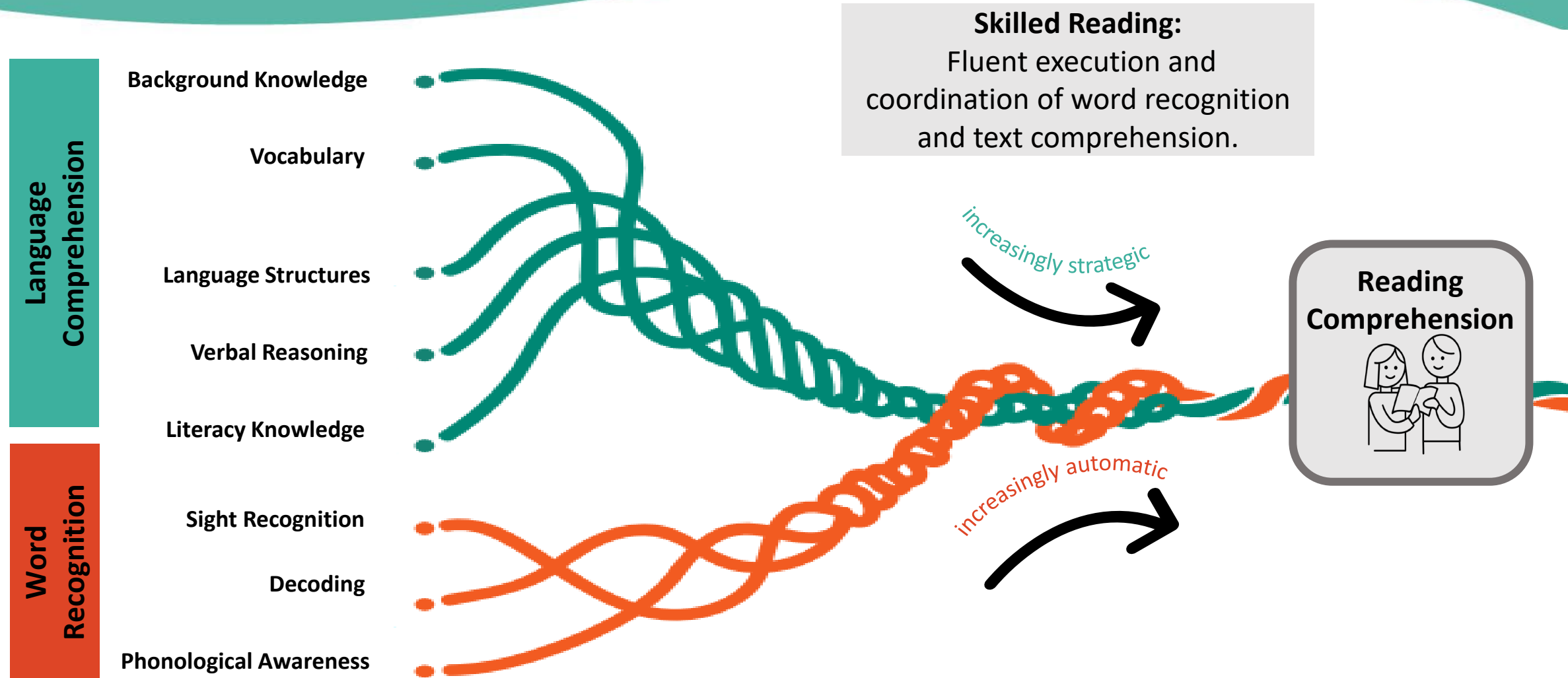
Making a Skilled Reader

Each ingredient is critical to success:
Like making a cake, all the elements within the **simple view of reading** come together **to make a skilled reader**.



Another model helps show this: **Scarborough's Reading Rope** breaks down the simple view into more detailed strands, showing how language comprehension and word recognition weave together to produce skilled reading.

Scarborough's Reading Rope



Myths and Misconceptions

Myth	Reality
Learning to read is a natural process.	Learning to understand spoken language: a natural process. Learning to read: requires skilled, systematic teaching.
Children develop phonemic awareness by learning to read rather than the other way around.	Overwhelming evidence indicates that phonemic awareness is a key building block of early reading.
Skilled reading requires using syntactic and semantic cues to guess words; good readers make many mistakes as they read text.	Good readers rely heavily on the information contained within words themselves (letter/word cues) to read words quickly and automatically. Context is used only to grasp word meaning.
A “balanced” literacy curriculum is ideal for teaching children to read.	The majority of children need systematic phonics instruction to establish early decoding skills and ongoing, skilled, and multifaceted teaching to continue to develop as readers.

Balanced vs Structured: Key Contrasts

Balanced Literacy: Missing Key Elements

- Emphasis on use of **context clues** for word recognition
- Phonics instruction sometimes **confined** to whole group or through mini-lessons in guided reading
- Skills instruction organized around **leveled text** or trade books
- Assessment sometimes limited to **informal reading inventory** without a clear picture of early literacy skills gaps

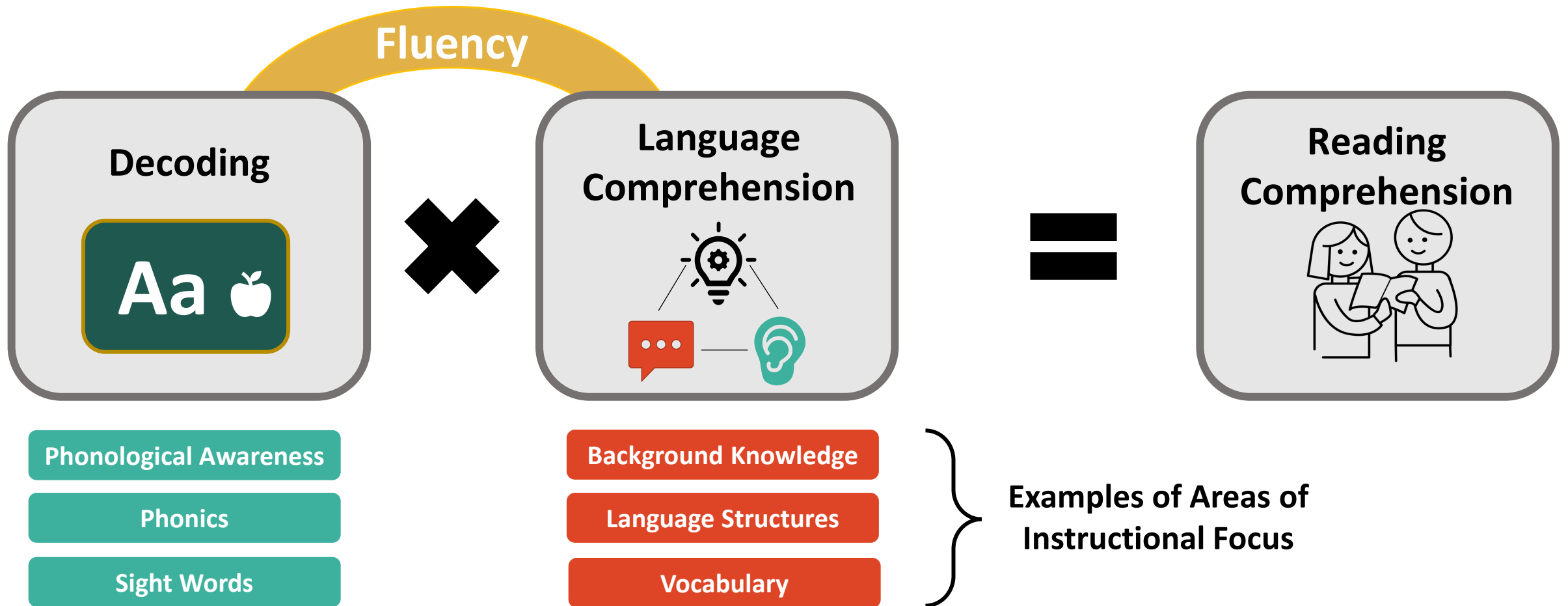


Structured Literacy: Systematic and Based on Science

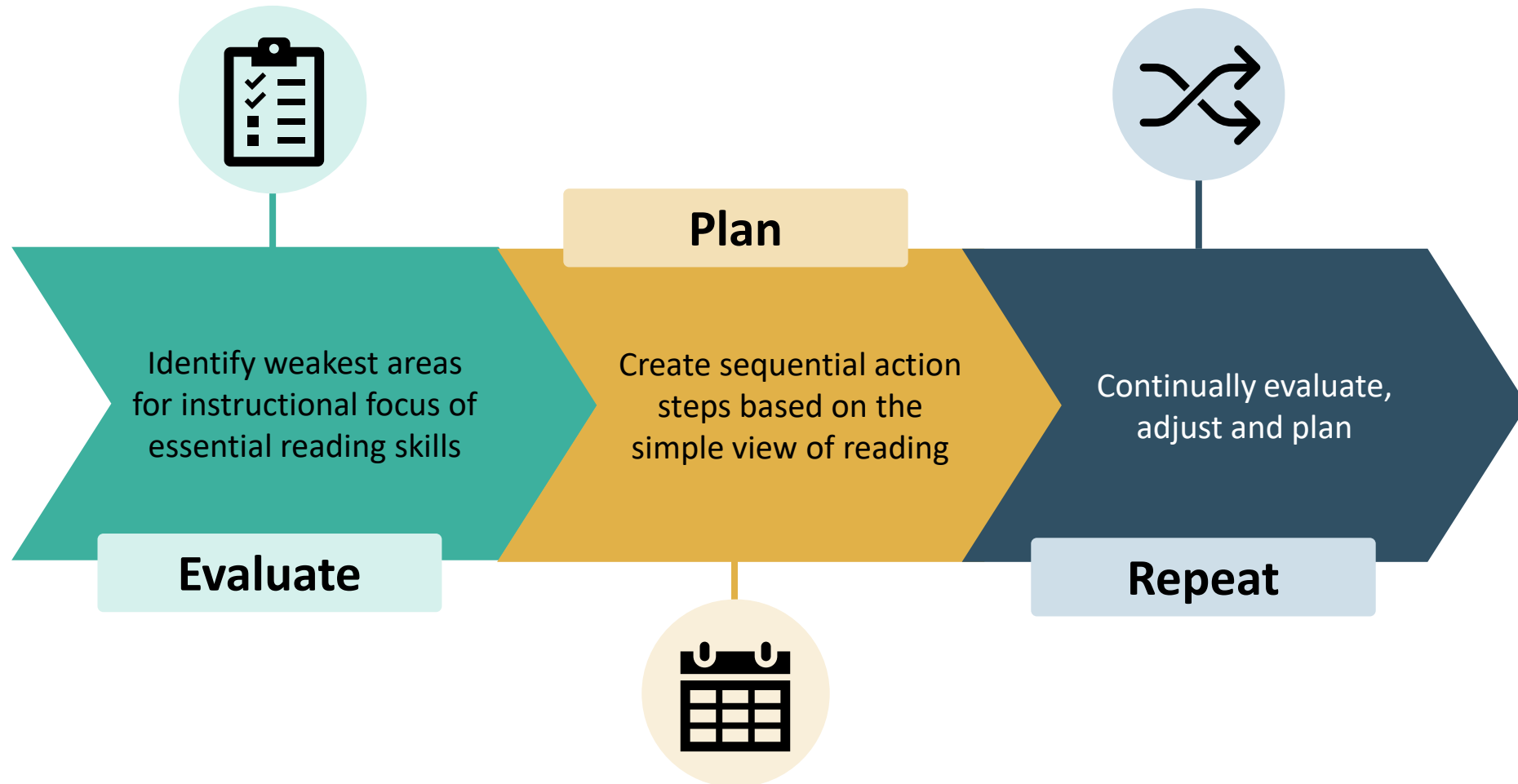
- Normed and criterion-referenced **assessments** used to **identify specific skills gaps**
- Phonics instruction follows a **logical scope and sequence**
- Systematic, sequential, **explicit phonics instruction** using synthesis (combining single letter sounds)
- Direct instruction for **mastery of the code** while **supporting** vocabulary and comprehension through read-alouds and guided reading

As Scarborough's Reading Rope shows, when any strand is weak, the whole rope frays.
Structured literacy strengthens each, giving students the tools to become confident, capable readers.

Determining Skill Gaps in Students



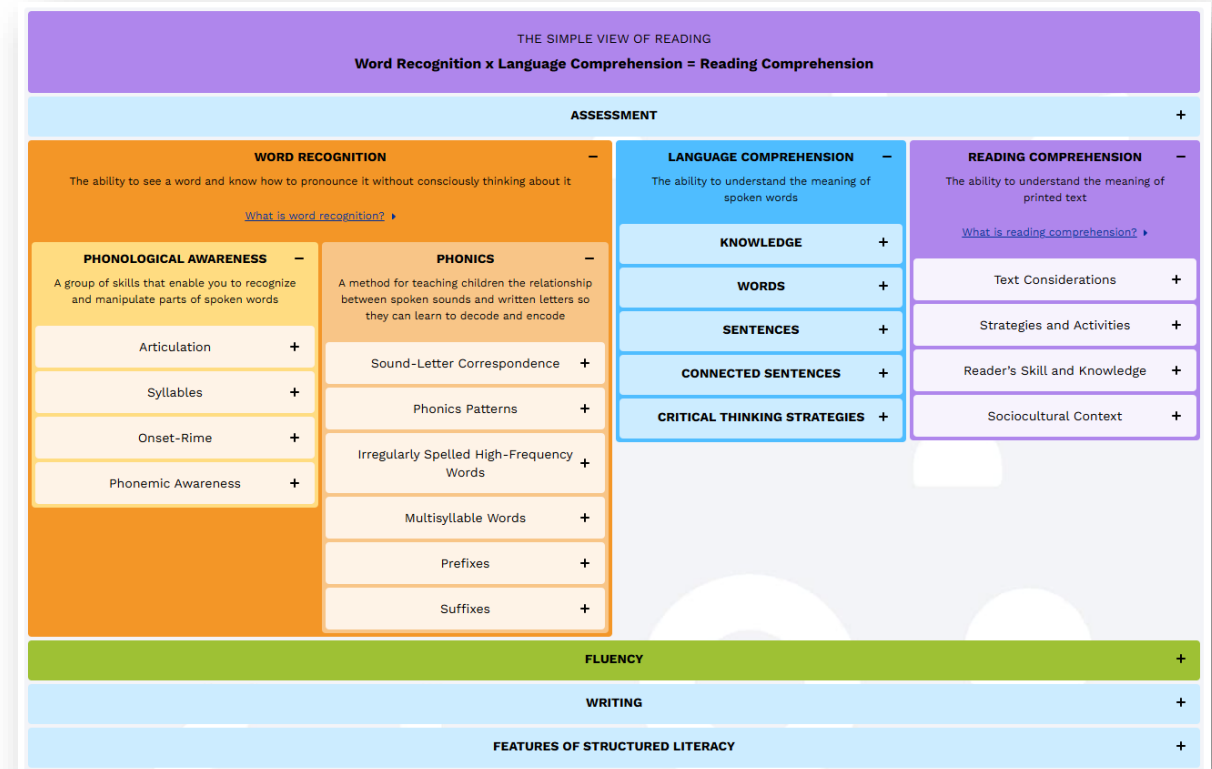
How to Take Action



Reading Universe Taxonomy Tool

A resource to **strengthen** your reading instruction.

- Developed by the Barksdale Reading Institute to support instruction aligned with the **Science of Reading**
- Early readers need literacy instruction that is:
 - **Systematic, sequential, explicit and cumulative**
- Breaks down the **simple view of reading** into teachable components using a **summary table**
- Each **component** links to:
 - Skill overviews
 - Classroom video examples
 - Tools for evaluating gaps, assessing students, and supplementing instruction



Practice Using This Tool

Explore by clicking on ***Syllables*** under ***Phonological Awareness***

- What is a **syllable**, and **why does it matter** for reading?
- When should you **introduce syllable awareness** to students?
- How can you **model and teach** this skill effectively?
- What does this **look like** in real classrooms? How can you **assess** students' understanding of syllables?
- What **lessons and activities** support mastery of this skill?
- Where can you find **additional tools** and **answers** to common questions?



Next Steps

- **Evaluate → Plan → Repeat**
 - Adapt the Action Planner and Agenda to fit your district or school context.
- **Use Curriculum & the Reading Universe Taxonomy**
 - Explore skill-by-skill breakdowns, videos, assessments, and lesson plans to identify gaps and supplement instruction.
- **Commit to Ongoing Learning**
 - The Opportunity Culture® portal has additional Science of Reading modules to guide further learning.
 - The portal also contains guidance on High-Quality Instructional Materials and Methods to ensure curriculum is aligned before layering in supplemental tools.
 - See opportunityculture.org/opportunity-culture-portal for details

Sources

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