



# The Science of Reading: The Connection to Instruction and Materials

Facilitator #1 Info

Facilitator #2 Info



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## Session Objectives

Participants will:

- Define and describe Scarborough's Reading Rope;
- Link instructional practices to the strands of the rope;
- Bridge pedagogy to practice with scenario sorts; and
- Reflect on instructional materials.



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# The Science of Reading



Image: Canva

## Why The Science of Reading?

All children... need access to both the secrets of the alphabetic code and relevant experiences with text. They need both explicit information about how reading works and immersive experiences that show them how to leverage reading and writing to change the world.

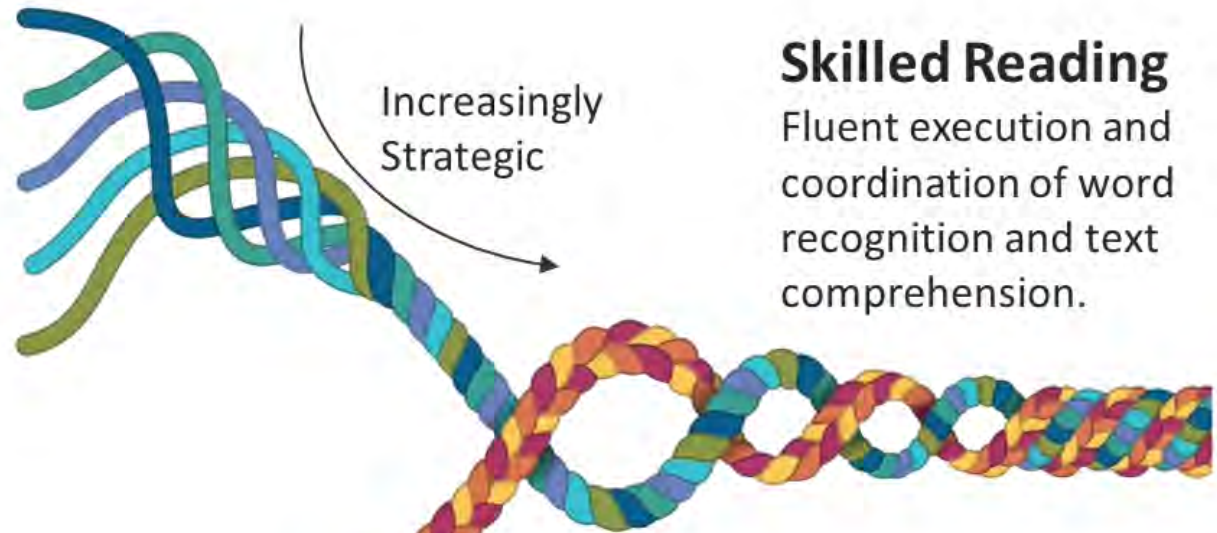


Image: Canva

# The Reading Rope

## Language Comprehension

- Background Knowledge
- Vocabulary Knowledge
- Language Structures
- Verbal Reasoning
- Literacy Knowledge



**Skilled Reading**  
Fluent execution and coordination of word recognition and text comprehension.

## Word Recognition

- Phonological Awareness
- Decoding (and Spelling)
- Sight Recognition

Scarborough, H. 2001. Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. Pp. 97-110 in S. B. Neuman & D. K. Dickinson (Eds.) *Handbook of Early Literacy*. NY: Guilford Press.

# The Reading Rope Strands Defined

Background Knowledge	Vocabulary	Language Structures	Verbal Reasoning
Literacy Knowledge	Phonological Awareness	Decoding	Sight Recognition

# The Reading Rope Strands Defined

## Background Knowledge

To demonstrate a level of knowledge relative to subject matter.

Giving students the opportunity to read nonfiction and literary texts that reinforce and scaffold what they are learning in their content areas will give them the schema to which they can tie new learning.

The greatest reading comprehension tool is not a set of strategies or tools that are content-free; rather, it is a well-stocked mind.

Texts used are rich and meaningful.

## Vocabulary

This strand consists of one standard: finding meaning. This strand is a building block of knowledge and essential to a thorough understanding of text.

An important element is determining which words require direct instruction and which words students can determine for themselves using context clues or morphology as appropriate.

Texts used are rich and meaningful.

## Language Structures

Structure within a text is the plan, organization, or the way something is arranged

Semantics is the study of word and phrase meanings. Semantics relates to the context, the situation within which something exists or happens within a text. Semantics also relates to connotation, the language that communicates a feeling or idea that is suggested by a word in addition to its basic meaning, or something suggested by an object or situation in a text.

Syntax is the formation of sentences and the associated grammatical rules.

Texts used are rich and meaningful.

## Verbal Reasoning

Inferencing is the ability to form an opinion from evidence; to reach a conclusion based on known facts.

Figurative Language is language expressing one thing in terms normally denoting another with which it may be regarded as analogous language characterized by figures of speech.

Texts used are rich and meaningful.

## Literacy Knowledge

English Language Arts is not a discrete set of skills, but a rich discipline with meaningful, significant content, the knowledge of which helps all students actively and fully participate in our society.

Students demonstrate a knowledge of basic print concepts, which is the ability to locate a printed word on a page, distinguish letters from words within sentences, match print to speech, identify parts of a book (front cover, back cover, title page), move from top to bottom and left to right when reading, and recognize that print conveys specific meaning and pictures that may support meaning.

Readers are exposed to a full spectrum of genres: classic literature, folktales, poetry, satire, memoirs, essays, speeches, plays, narratives, treatises, founding documents and histories.

Texts used are rich and meaningful.

## Phonological Awareness

The ability to segment sounds in speech at the syllable, onset-rime and phoneme level.

Phonemic Awareness is a subcategory that is essential for reading, including the awareness of individual sounds/phonemes in spoken words.

Instruction is well-paced, and immediate feedback is provided to students.

## Decoding

Translating a word from print to speech, usually by employing knowledge of letter sound relationships; also, the act of deciphering a new word by sounding it out.

Connected texts used contain explicitly taught phonetic principles and high frequency words.

Students engage in encoding application, which is the ability to determine the spelling of a word based on the sounds in the word.

Instruction is well-paced, and immediate feedback is provided to students.

## Sight Recognition

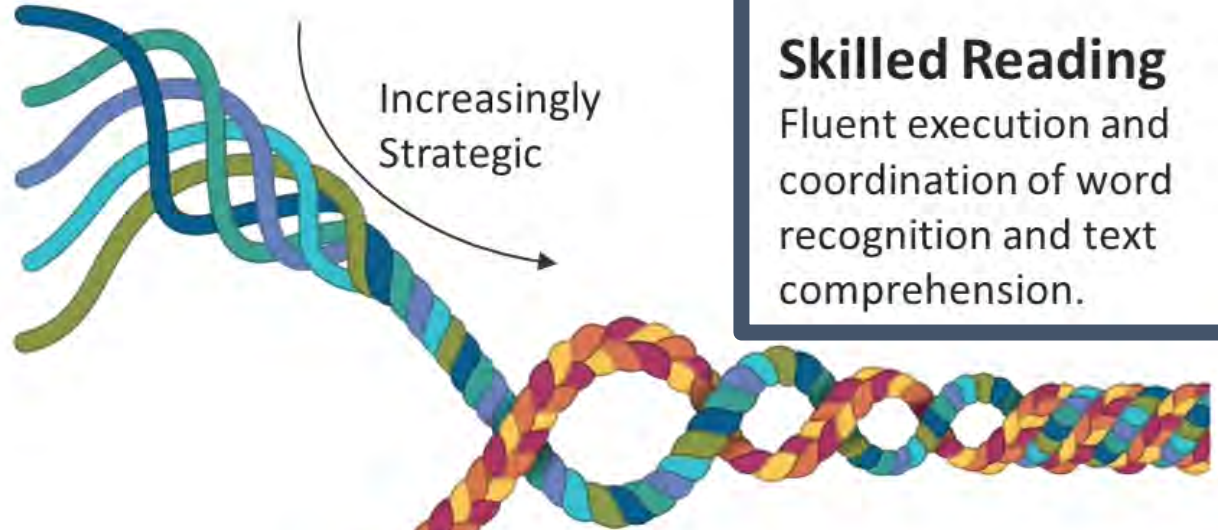
Words that can be recognized efficiently at a glance. Note: The goal is that all words eventually become sight words. Learning to automatically recognize irregular and regular words makes them sight words that can support fluency development. Practicing reading using decodable texts with some irregular words is important. As students consolidate their alphabetic skills, they should practice reading familiar text to build fluency.

Instruction is well-paced, and immediate feedback is provided to students.

# The Reading Rope and Skilled Reading

## Language Comprehension

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- Vocabulary Knowledge
- Language Structures
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- Literacy Knowledge



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## Pathway to Comprehension



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Image: Canva



Image: Canva

Reading comprehension actually begins long before children begin to decode. It begins as they learn to understand and use spoken language. (Hogan, Adlof and Alozo 2014)

# Strengthening the Rope: Phases of Word Reading Development

Pre-Alphabetic Phase

Partial  
Alphabetic  
Phase

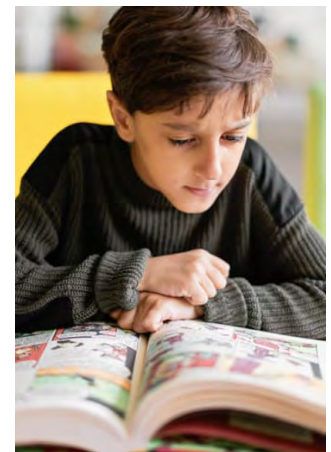
Full  
Alphabetic  
Phase

Consolidated  
Alphabetic  
Phase

Automatic  
Phase



Image: FCRR



Ehri, L. C., & McCormick, S. (1998)

Images: Canva

## Skilled Reading: Ehri's Automatic Phase

The automatic phase is considered the final phase in word reading development (Ehri & McCormick, 1998). Word reading is quick and effortless and most words encountered have become sight words. Unfamiliar words are decoded with highly developed automaticity, and with particularly technical words, readers have a variety of strategies at their disposal. At this phase, the reader is able to focus entirely on the meaning of text. Most proficient adolescent and adult readers have reached the automatic phase.

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How Children Learn to Read Words: Ehri's Phases by Holly B. Lane, Ph.D.

# How Do We Get Students There?



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# The Science of Reading: Instruction & Materials



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## Strong Instruction & Materials Focus Upon:

The Science of Reading

**Strong curriculum resources for teaching will intentionally be influenced by the word recognition and language comprehension strands of The Reading Rope.**





# Strengthening the Reading Rope: What Classroom Instruction...

**Looks Like**

**Sounds Like**

**Feels Like**



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# Strengthening the Rope: Phases of Word Reading Development

**Pre-Alphabetic  
Phase**

**Partial  
Alphabetic  
Phase**

**Full  
Alphabetic  
Phase**

**Consolidated  
Alphabetic  
Phase**

**Automatic  
Phase**

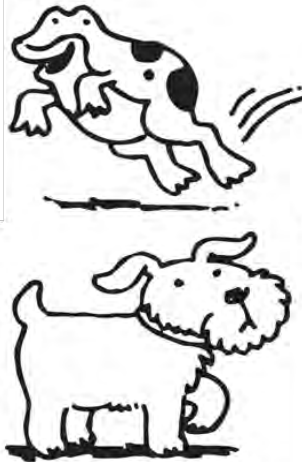
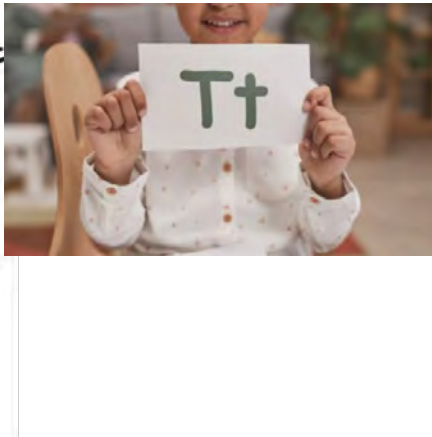


Image: FCRR



Images: Canva

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# Strengthening the Rope: Phases of Word Reading Development

## Pre-Alphabetic Phase

- Instruction in this phase should focus on:
- Phonological awareness;
  - Alphabet knowledge; and
  - Grapheme-phoneme correspondences.

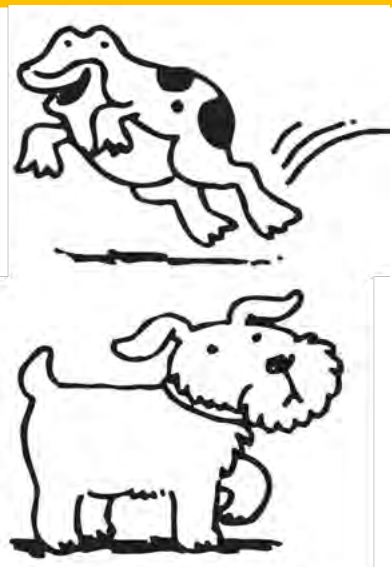


Image: FCRR

Strand	Standard	Benchmark	Code
Foundations (F)	Learning and Applying Foundational Reading Skills	Print Concepts	F.1.1
		Phonological Awareness	F.1.2
		Phonics and Word Analysis	F.1.3
		Fluency	F.1.4

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# Strengthening the Rope: Phases of Word Reading Development

## Partial Alphabetic Phase

Instruction in this phase should focus on:

- Reinforcing letter-sound knowledge and phonemic awareness; and
- Placing emphasis on using all of the letters in each word.



Images: Canva

Strand	Standard	Benchmark	Code
Foundations (F)	Learning and Applying Foundational Reading Skills	Print Concepts	F.1.1
		Phonological Awareness	F.1.2
		Phonics and Word Analysis	F.1.3
		Fluency	F.1.4

# Strengthening the Rope: Phases of Word Reading Development

## Full Alphabetic Phase



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Instruction in this phase should focus on:

- Segmenting and blending phonemes;
- Attending to every grapheme individually; and
- Repeated exposures to words with taught grapheme-phoneme correspondences in order to promote orthographic mapping.

Strand	Standard	Benchmark	Code
Foundations (F)	Learning and Applying Foundational Reading Skills	Print Concepts	F.1.1
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# Strengthening the Rope: Phases of Word Reading Development

## Consolidated Alphabetic Phase



Images: Canva

- Instruction in this phase should focus on:
- Recognizing chunks within words; and
  - Pronouncing each new word aloud as students read silently to form spelling-sound connections and phonological memory for the word.

Strand	Standard	Benchmark	Code
Foundations (F)	Learning and Applying Foundational Reading Skills	Print Concepts	F.1.1
		Phonological Awareness	F.1.2
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		Fluency	F.1.4

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# Strengthening the Rope: Phases of Word Reading Development

## Automatic Phase



Images: Canva

At this phase, the reader is able to focus entirely on the meaning of text.

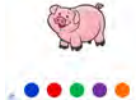
How Children Learn to Read Words: Ehri's Phases by Holly B. Lane, Ph.D.

# Strengthening The Reading Rope Instructionally

Background Knowledge	Vocabulary	Language Structures	Verbal Reasoning
Literacy Knowledge	Phonological Awareness	Decoding	Sight Recognition



# Strengthening The Reading Rope Instructionally

<p><b>Background Knowledge</b></p> <p>Students have been reading about plants and pollination during their Living Things Unit of Study. A teacher is about to read aloud Give Bees a Chance. The teacher asked students to think about what they already know about bees based on the texts, photographs and videos they have engaged with thus far. Students were then asked to share with a shoulder partner. The teacher then circulates the room listening to student responses.</p>	<p><b>Vocabulary</b></p> <p>Students are reading a text and the teacher has them pause at the word <b>tarnish</b>. The teacher asks the students to think about the word's meaning. The students respond that they do not know what the word means. The teacher has two paper clips. One was shiny and the other was not. The teacher has the students analyze the difference and holds up the tarnished paper clip. The teacher says, This paper clip is tarnished. The teacher then has the students reread the sentence with the word tarnish and discuss with their table team what it means in the context of the text.</p>	<p><b>Language Structures</b></p> <p>During the writing block, the teacher is circulating and helping students with the editing stage of the writing process. With one student, the teacher is calling attention to subject-verb agreement.</p>	<p><b>Verbal Reasoning</b></p> <p>Students are rereading text and identifying examples of figurative language. They are then going to use figurative language in their own writing.</p>
<p><b>Literacy Knowledge</b></p> <p>Students are working on analyzing a piece of poetry. They are looking at each stanza and discussing the meaning of each stanza and how it applies to the poem as a whole.</p>	<p><b>Phonological Awareness</b></p> <p>The teacher is saying word pairs and asking students to listen carefully to the sounds within the words. The students are to give a thumbs up if the words rhyme and a thumbs down if the words do not rhyme.</p>	<p><b>Decoding</b></p> <p>Students are working on closed syllables. Their specific focus is CVC short vowel sounds. They are using Elkonin boxes and letter tiles for phoneme-grapheme correspondences.</p>  <p>Students then apply their knowledge to an accountable text (a decodable reader) that has CVC short vowel words as well as learned high frequency words.</p>	<p><b>Sight Recognition</b></p> <p>Students are working independently to read and respond to a text. The teacher stops next to a student to listen in to the reading. The student's reading is effortless. Unfamiliar words are decoded with automatically.</p>

# Classroom Application

From theory to practice, what should instruction look like, sound like and feel like in the classroom?



## Instruction: Looks Like

- What does instruction/learning look like?
- What materials/manipulatives are being used?
- What are the teacher and students doing?



Image: Pixabay

## Instruction: Sounds Like

- What does instruction/learning sound like?
- What are the teacher and students saying?

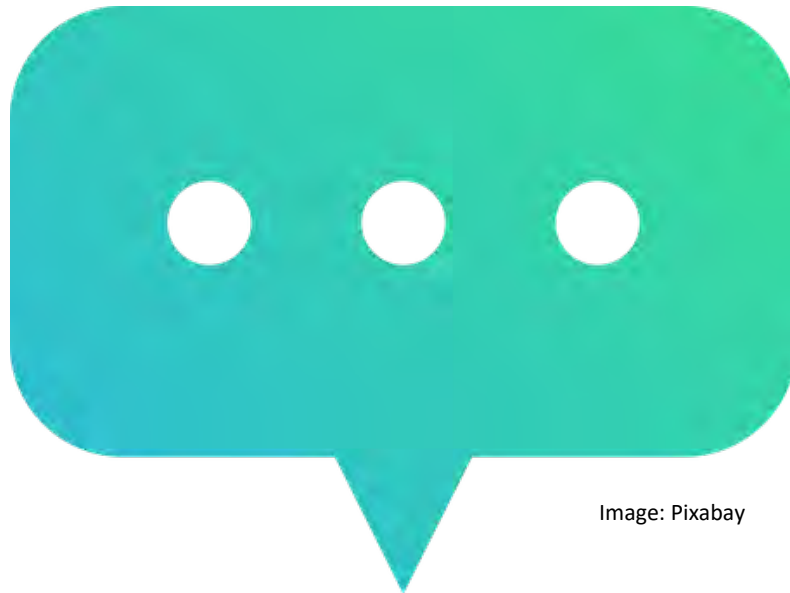


Image: Pixabay

## Instruction: Feels Like

- What does instruction/learning feel like to the teacher or students?
- What does it feel like as an observer?
- How is the pacing?
- How are students engaging with tasks and texts?



Image: Pixabay

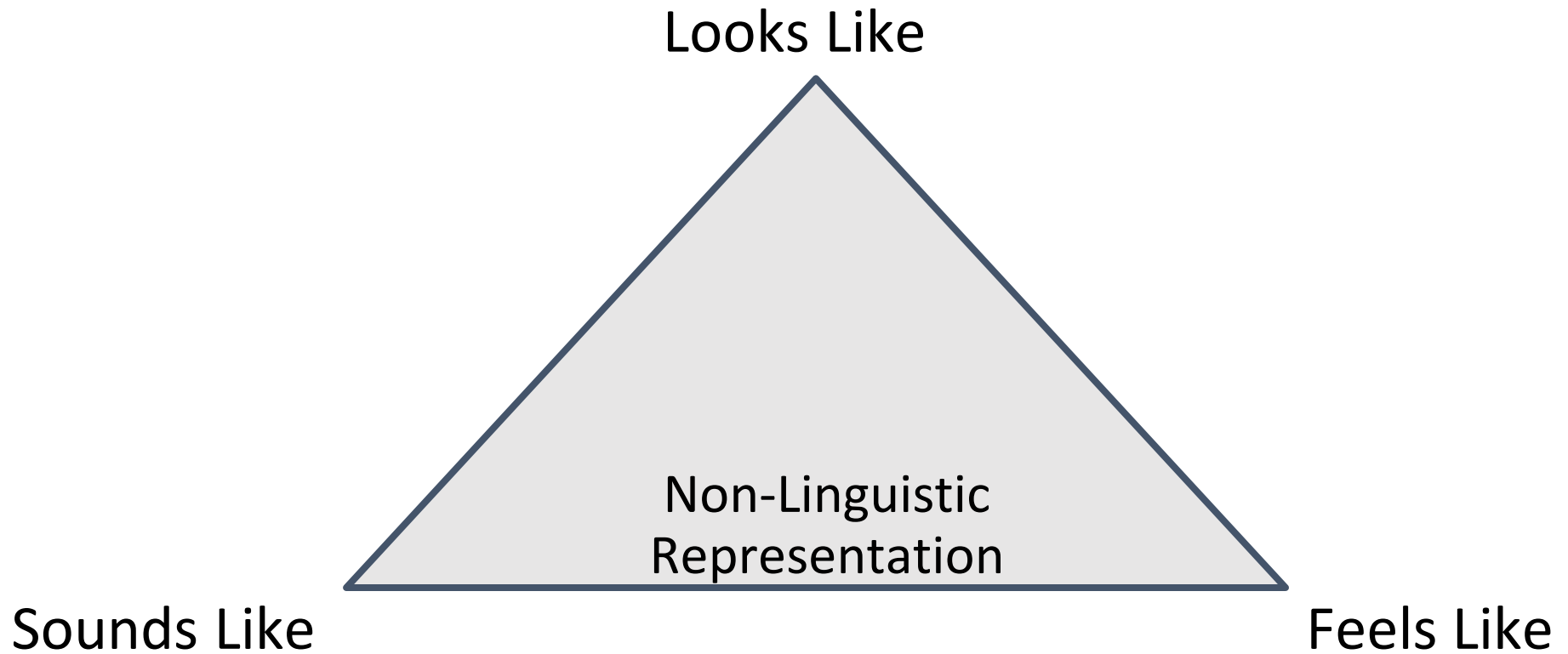
## Instruction: Tie it All Together

- Create a non-linguistic representation that showcases the instructional implications of your strand



Image: Pixabay

# 1. Phonological Awareness



# Reflection

Self-reflect using a scale of 1-5 for each strand, or element of the rope. Consider adopted curriculum materials as well as implementation in classroom instruction.

1 ●

Minimal  
use of the  
element  
during  
instruction



Image: Canva

● 5

Masterful  
use of the  
element  
during  
instruction



## Sources

- Scarborough's Reading Rope
- Florida ELA Standards and Benchmarks with Clarifications + Examples
- How Children Learn to Read Words: Ehri's Phases by Holly B. Lane, Ph.D.
- Images from Canva and Pixabay



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**Thank you!**



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