

Center for Model Schools™

Cracking the Code: Literacy and the Brain

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November 2023



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HMH

What Do You Know?



**Why did you
choose to
attend this
session/series?**



Prime the Pump for Learning



SCARBOROUGH'S READING ROPE

LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE
(facts, concepts, etc.)

VOCABULARY
(breadth, precision, links, etc.)

LANGUAGE STRUCTURE
(syntax, semantics, etc.)

VERBAL REASONING
(inference, metaphor, etc.)

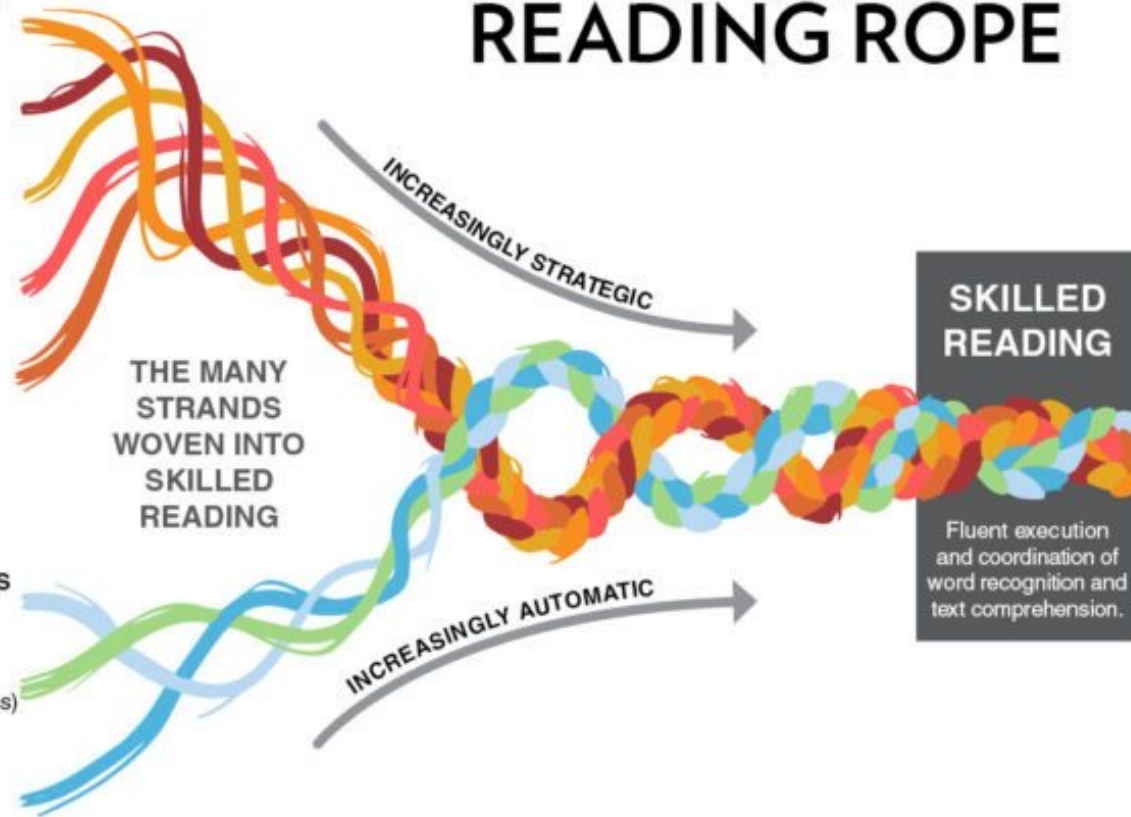
LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING
(alphabetic principle,
spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)



SKILLED READING
Fluent execution
and coordination of
word recognition and
text comprehension.

THE MANY
STRANDS
WOVEN INTO
SKILLED
READING

INCREASINGLY STRATEGIC

INCREASINGLY AUTOMATIC

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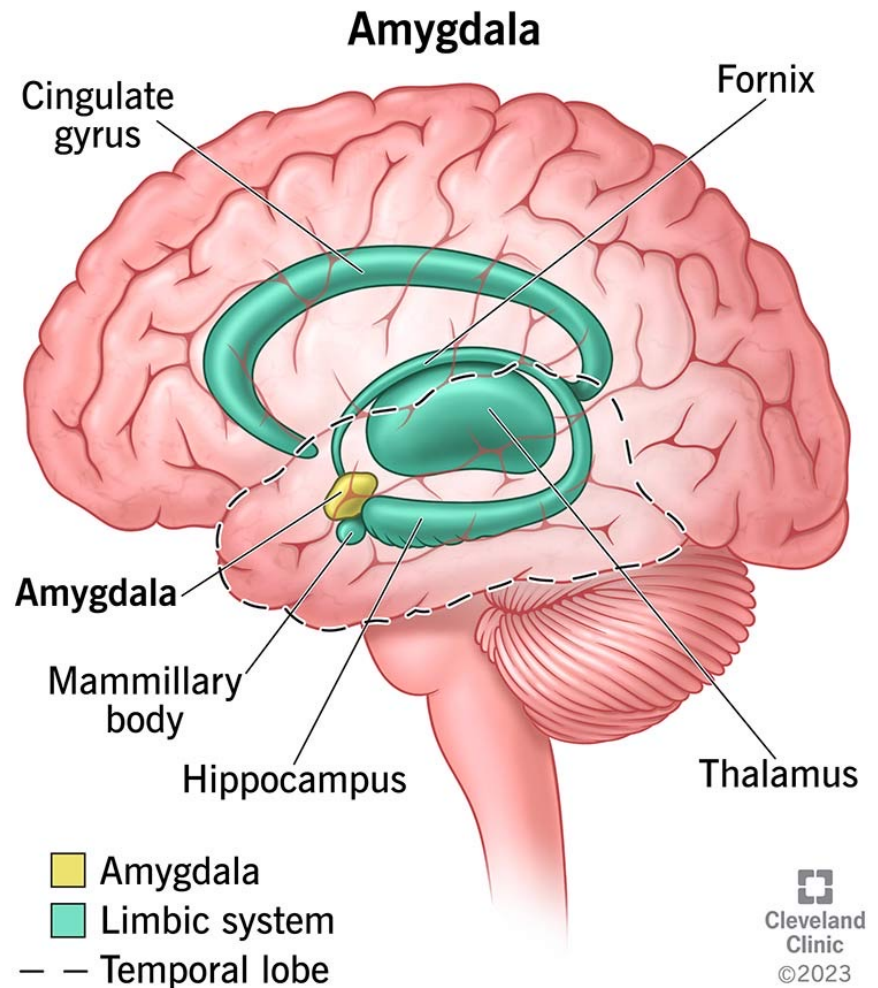
Graphic modeled after the illustration from the *Handbook of Early Literacy Research*, by Susan B. Neuman and David K. Dickinson (2001) who re-envisioned researcher and author Hollis Scarborough's visual metaphor of the Reading Rope.

Environment

1. Children are born ready to learn.
2. Growth of brain is dependent upon: children's experiences, people, and the world.
Children learn best in nurtured environments and stress is avoided

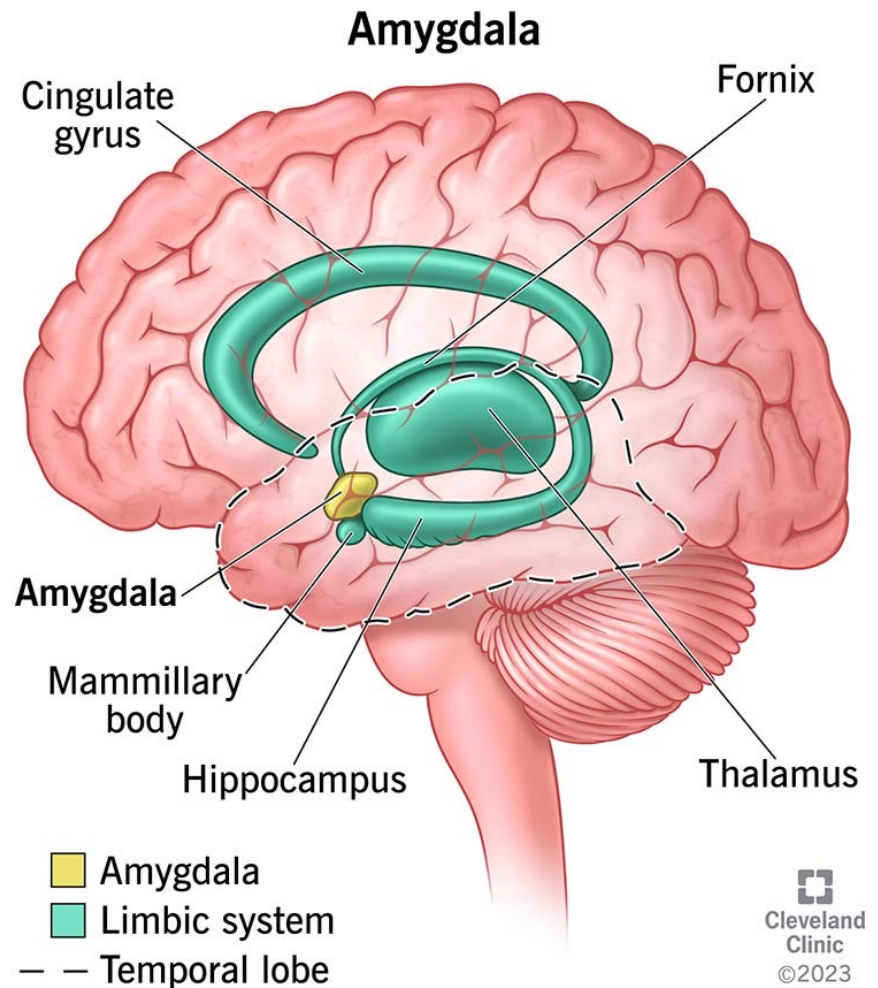
Amygdala

1. Amygdala controls feeling, behavior, and learning.
2. Learning through rewards and punishment.
3. Implicit memory – allows use to do certain things without remembering how you learned them.

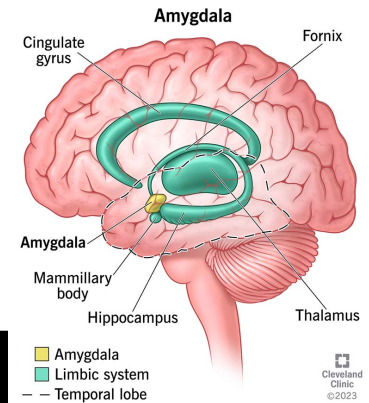


Amygdala

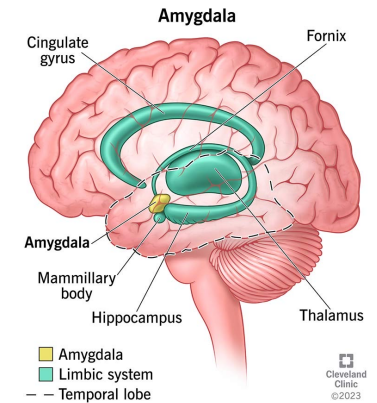
1. Examines social communication and how you interpret intentions.
2. Emotions we connect to memories.
3. Where many health conditions are involved



Why does the amygdala matter in reading?



Why does the amygdala matter in reading?



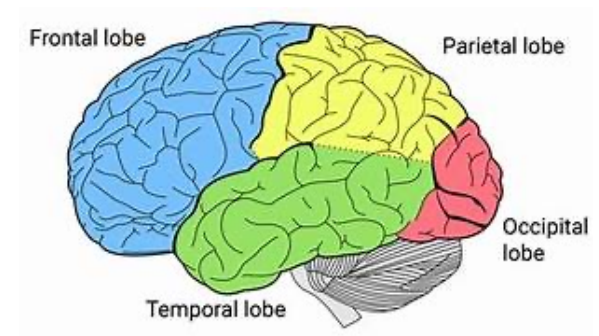
Regions of the Brain Related to Reading

1. Visual Cortex
2. Phonological Cortex
3. Semantic Cortex
4. Syntactic Cortex

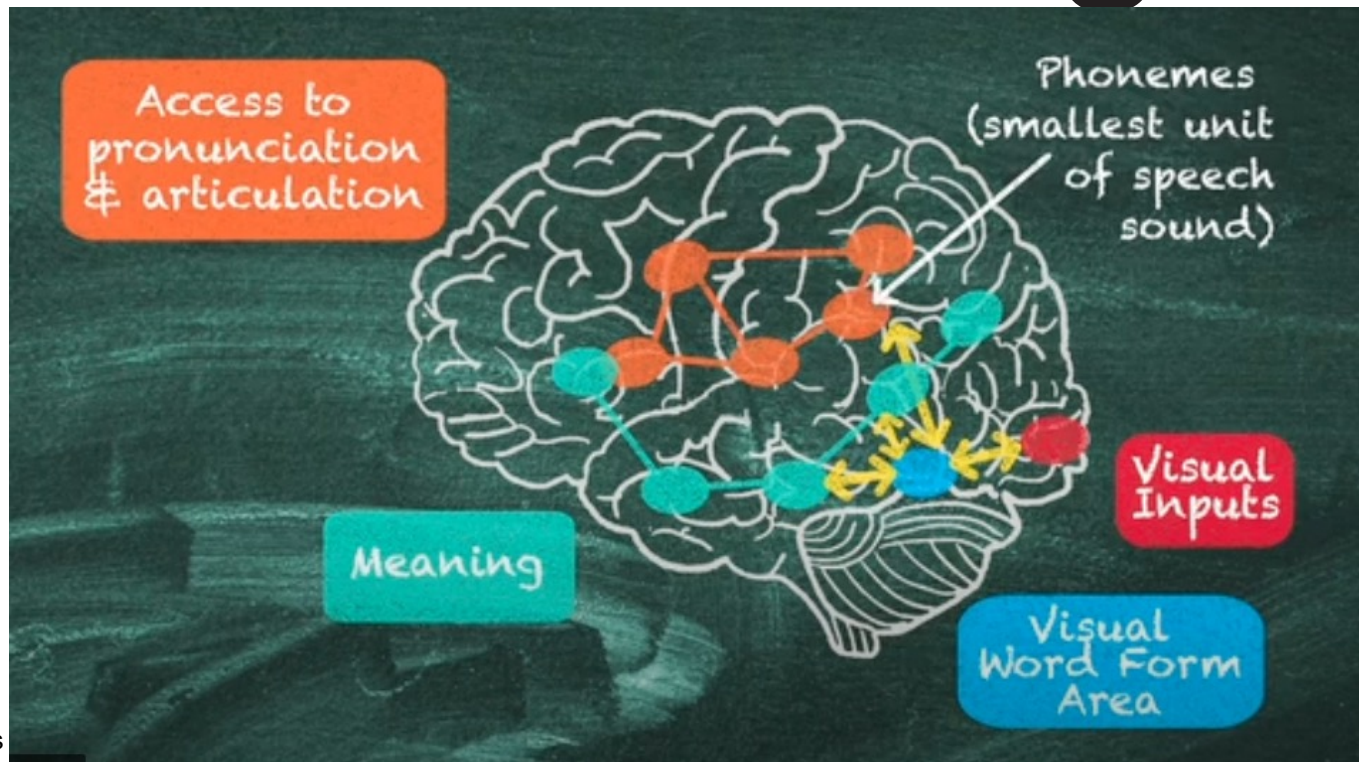


Four Lobes of the Brain

1. Frontal: speech
2. Occipital: stores meaning
3. Parietal-Temporal Region: written word is segmented into it's sounds



Brain Was Not Created for Reading



Phonological Awareness to Meaning

1. Focus on phonological awareness:
__ sounds
2. Connection between letter/sound
correspondence – brain changes and
now can connect words visually
3. Then we can focus on meaning.

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We see this

Convergence Insufficiency
can make text look double
when trying to read.

They see this

Convergence Insufficiency
can make text look double
when trying to read!

They see this

Convergence Insufficiency
can make text look double
when trying to read!

Some people with
Convergence Insufficiency
experience a 'halo effect'
instead of double vision

Three Ways to Reflect

Tweet your
idea with
@ModelSchoolsHMH
@AdamDDrummond.



Share your
idea with a
partner.



Write down
your 3 ideas
using
intrapersonal
time.



Instructional Insights for Learning Leaders

1st Thursday
12:00 pm EST



Join **Dr. Adam Drummond** each month to discuss what it takes to be the instructional leader for your school. During these monthly sessions, Dr. Drummond collaborates with leaders to celebrate noticeable difference makers and uncover root problems in teaching and learning.

Each session will provide instructional leaders with two innovative ideas and succinct strategies that they can use the very next day.



Make plans to join Adam in
Leader's Corner each month!

[Register Here](#)

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Leader's Corner

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Marriott World Center: Orlando, FL

June 23-26, 2024

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*Best Pricing Ends December 31



Register
Today



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Contact Adam for more information

<https://leadered.com/contact-us/>





Thank you!

“Be the change
you wish to see
in your school.”

Dr. Adam Drummond



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