



ENGAGE

To Receive Credit for this session, make sure you complete the survey at the end.



Northwest ISD
Professional Learning Expectations
A Culture of Learning

P

PARTICIPATE POSITIVELY



L

LISTEN FOR AND SHARE
DIFFERENT PERSPECTIVES
WITH RESPECT



N

NAVIGATE LEARNING
WITH A GROWTH MINDSET



I

IDENTIFY HOW YOU WILL APPLY
THIS LEARNING TO YOUR WORK



S

SET GOALS AND PLAN NEXT STEPS



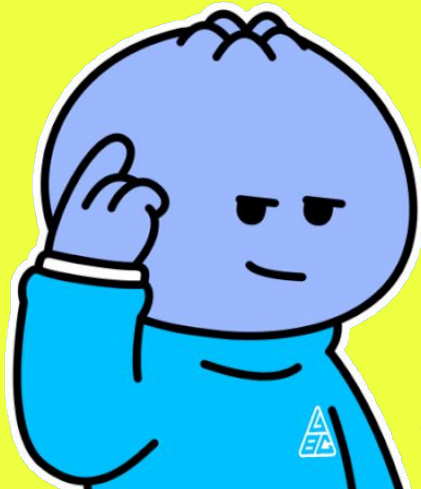
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DEMONSTRATE PROFESSIONALISM



Let Your Brain-Based Strategies “Kick Off” Engagement

July 22, 2026



Credit to Region II Education Service Center/Kerry Ferguson



Kelly Barrett

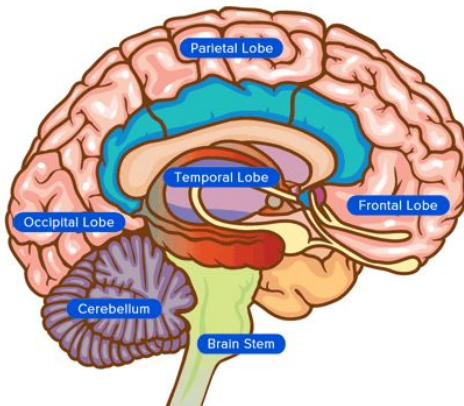
GT Specialist, Justin and Carter

37 years in education

25 years in GT

kbarrett@nisdtx.org

average "woman" brain:



Liz Smith

GT Specialist, Schluter and Clara Love

18 years in education

12 years in GT

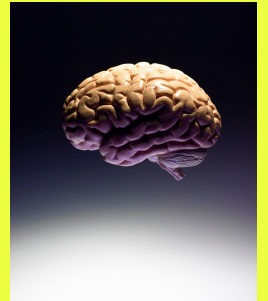
esmith01@nisdtx.org

Today's Learning Target

NISD Educators will...**learn brain friendly strategies** to boost student focus, engagement, and a more in-depth understanding of content.

So, you can...**apply some research based neuroscience strategies into your classroom.**

You will know you have it when...**you've applied these strategies starting in August and “kick off” engagement.**



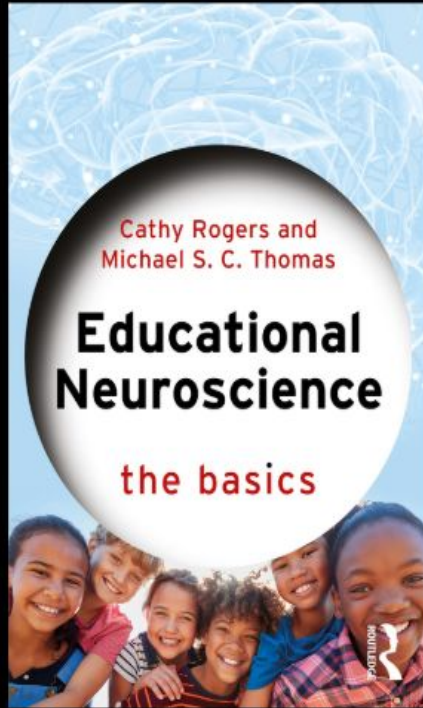
**Essential
Question:
How
might
we align
teaching
with
how the
brain
learns?**



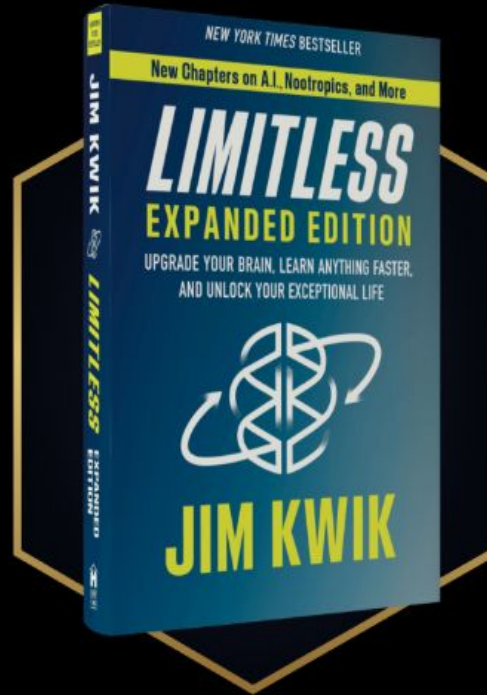
Today's Agenda

- Part 1: Debunking a few neuromyths
(Brain facts and fun--that's us!!)
- Part 2: “May I have your attention, please?”
(Attention and Focus)
- Part 3: “Do you understand??”
(Process and Understanding)
- Part 4: “Uh, I forgot!” “But I taught that yesterday!”
(Memory and Retention)

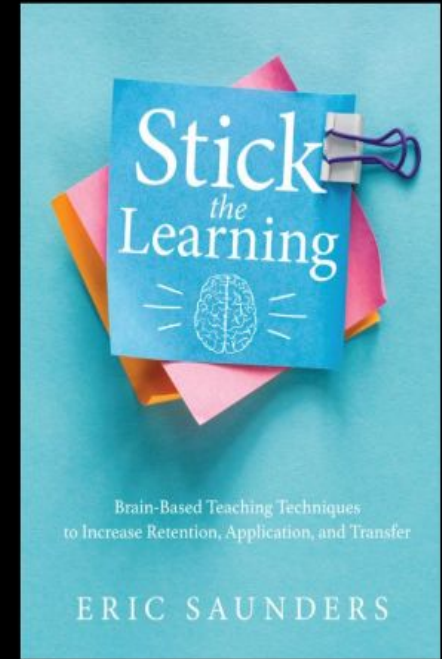
THE WHAT AND THE WHY



THE HOW



SMALLER VERSION OF BOTH



TIP FOR NOTE-TAKING



Think

What are you hoping to retain most from this session?

“If you take notes with a goal in mind, then every note you take will have relevance.”

~Jim Kwik



Identify

Identify what is most important in the context of your goal.

Writing down everything is impossible.



Prioritize

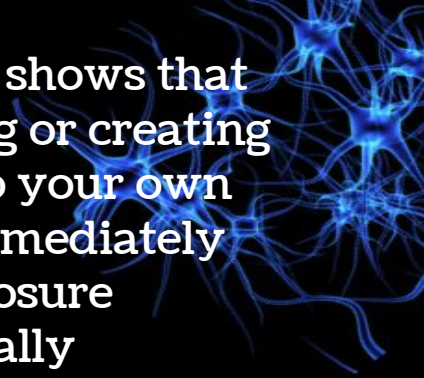
After taking notes, review them and prioritize the information.

Add symbols or make side-notes to highlight priorities.



The Kwik Method

○ Capture	Create
○ Capture content notes on this side.	● How can I use this? ● Why must I use this? ● When will I use this?
○	You capture the raw information (notes, key ideas, etc.) on the left side and then, on the right side, you process the information, adding your own thoughts, questions, feelings, and how you might apply it.



Research shows that reframing or creating ideas into your own words immediately after exposure dramatically strengthens memories. Encourage students to create what makes sense...bullet points, images, doodles, real-world connections, etc. but note-taking must be taught.

Kwik, J. (2023). *Limitless expanded edition: Upgrade your brain, learn anything faster, and unlock your exceptional life.* Hay House.

Benefits of the Kwik Method:

Improved Memory:

By actively engaging with the information and creating your own notes, you're more likely to remember it.

Enhanced Focus:

The division of the page helps you stay focused on both capturing and creating, preventing mental drift.

Deeper Understanding:

Connecting the information to your own thoughts and experiences leads to a more profound understanding.

Actionable Insights:

The "How, Why, When" questions encourage you to think about how you can apply the information in real-life situations.

In essence, the Kwik method is a powerful tool for transforming passive learning into active engagement, leading to better retention and practical application of knowledge.

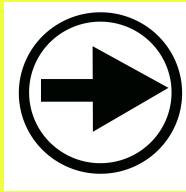
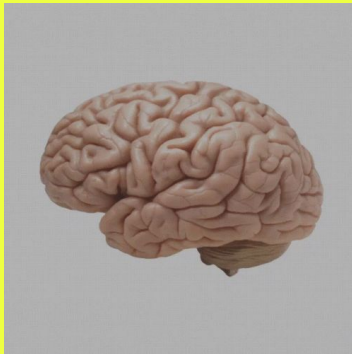
Part 1: Debunking some Neuromyths



Are brains more like a filing cabinet or more like a messy desk?

Messy desk!

The brain's memory system is much more dynamic and interconnected than a simple filing cabinet, and recent research suggests it's more akin to being a network or a highly interconnected system rather than a neatly organized archive.



Myth

vs

Reality?



Multitasking increases productivity and efficiency.



Multitasking **decreases** productivity (up to 40%)

We use 10% of each side of our brain at a time.



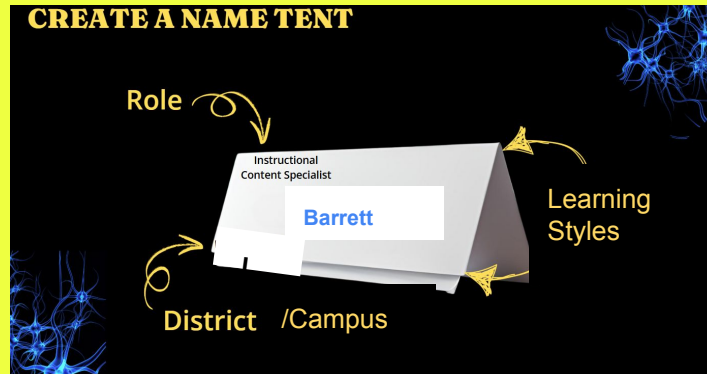
We use, to a large extent, **all** of our brain at the **same time**.

Let's Find Out...What's YOUR Learning Style?

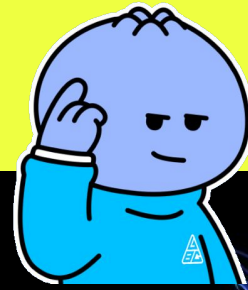
[Self-Assessments - EducationPlanner](https://www.educationplanner.org/students/self-assessments) (20 questions)

<https://www.educationplanner.org/students/self-assessments>

Once you've finished, create your own learning style nameplate. Add to your notes: How might and when might you use this with kids? For example...If you learn that 60% of your class is tactile at the beginning of the year, how might you adjust your instruction moving forward? Or how might you knowing your own learning style impact your approach in working with your class?



Part 2: Attention and Focus



“Sit as if you’re about
to learn the most
crucial life-changing
information”

~ Jim Kwik





4:03

How
well
can
you...



PAY ATTENTION

?



CAN YOU

What does



ATTENTION

REALLY mean?

ATTENTION

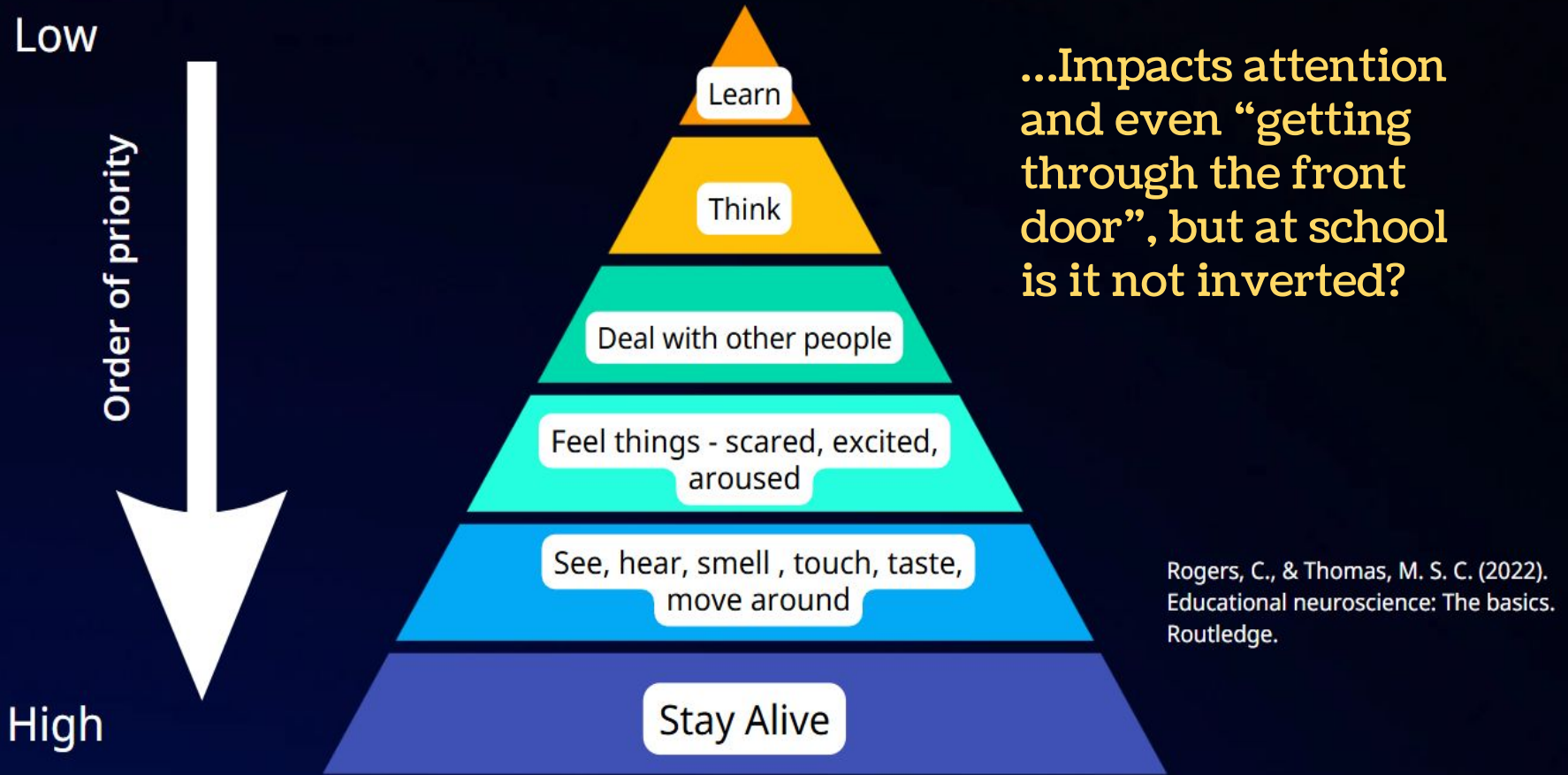
**The mechanism for selecting and
prioritizing information.**



“Attention is the filter to select information from the environment - the all important step in the learning cascade.

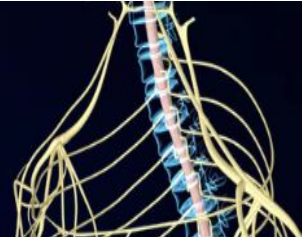
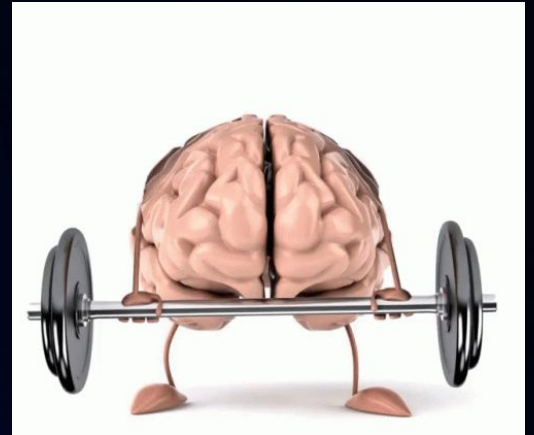
If the information does not make it past the front door, it can't get processed.”

THE BRAIN'S HIERARCHY OF PRIORITIES



Kids need to know...

Your concentration is like a muscle that you can train to become stronger with practice.



INSTRUCTIONAL FOR ATTENTION

STRATEGIES AND FOCUS

Hooks

Learning Targets

Schedule a distraction

Minimize sensory
distractions

Switch activities often

Instrumental music

Name your distraction

Intentionally plan to practice attention and focus:

Schedule a distraction by using the Pomodoro Technique: Use a timer to break work into intervals, typically 20-25 minutes, then follow up with a **short** break.

Have students refer to **learning targets** throughout the lesson. It helps students to prioritize.

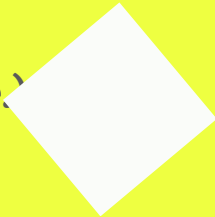
Use “**hooks**” to grab attention---but be sure to change it up!

Switch activities often while keeping them as novel as possible.

Minimize **sensory** distractions by keeping visual displays relevant to learning.

Ask students to “**name your distraction**” – Simply being aware allows for an adjustment and refocusing.

Use **instrumental music** (Ideally with 60-80 beats per minute.)



Share what YOU do that works!



TABLE TALK

Choose one strategy and discuss what that would look like in your classrooms.

- Identify Priorities
- Use Hooks
- Switch Activities Often
- Minimize Distractions
- Brain Breaks



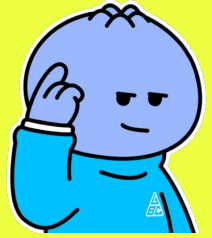
5 Exercises to Improve Attention and Focus

(Here's examples of: a scheduled distraction, “short” brain break and educational tactile learning)

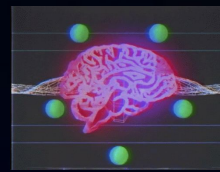
Jim Kwik-4:32



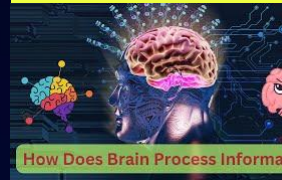
Part 3: Process and Understanding



PROCESSING

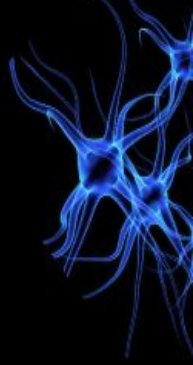


- **Takes place in your working memory**
- **Working memory:**
 - **temporary connections from your sensory circuits to your executive system (front of the brain)**
 - **active maintenance of vulnerable neurons**
 - **limited yet variable**



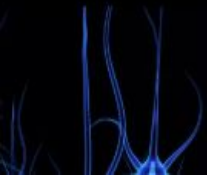
How Does Brain Process Information

WORKING MEMORY EXAMPLE



Do your best to memorize the
number on the next slide.

No pencils or paper...just try to memorize!



100365246060

What connection or relevance can you make with the numbers now?

100 365 24 60 60

Now, did you remember
them easier the 2nd
time?

Try remembering them
and write them down.

**“Knowledge that is both
understandable and relevant has
the best chance of being stored.”**

Rogers, C., & Thomas, M. S. C. (2022). Educational neuroscience: The basics. Routledge.

**“Neurons that fire together
wire together”**

~ Donald Hebb (1949)

... and that's how memories are made



LEARNING IS FIGHTING

- Sometimes we have to unlearn.
- Sometimes we have to forget.
- Sometimes we have to take a memory built for one purpose and assign it a different purpose.

Let's practice that...by trying to remember a grocery list!



Kwik, J. (2023). Limitless expanded edition: Upgrade your brain, learn anything faster, and unlock your exceptional life. Hay House.

Play at 4:24

Kwik's favorite method for remembering things. And what fun to teach it to students!

INSTRUCTIONAL STRATEGIES FOR PROCESSING & UNDERSTANDING

Analogies

Metaphors

Elaboration

Chunking

Transfer

Dual Coding

Metacognition

Make it relevant



SOCIAL LEARNING

- Sense of ownership
- Value and relevance
- Engaging
- Fosters discovery and exploration
- Increases motivation

All these things make more and stronger connections and memories.

In small social learning situations, create a quick resource to teach others about one of the 8 instructional strategies. Be mindful of the 3 types of learning styles: visual, auditory, and tactile.

INSTRUCTIONAL STRATEGIES FOR PROCESSING & UNDERSTANDING

Analogies

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Make it relevant



8 Instructional Strategies for Processing and Understanding

Chunking -- - Breaking down large pieces of information into smaller segments.

Analogies -- - Compare two unlike things using patterns or categories. Example: tree is to leaf as flower is to petal

Metaphors - - A comparison that does NOT use like or as. Example: Your brain is a gerbil habitat with many tunnels.

Elaboration- Expand a concept by adding details and connections (Mind Mapping)

Relevancy- Connect it to their own daily experiences.

Transfer -Take previously learned material and apply it to a new learning situation

Dual-Coding- Combines both verbal and visual information to gain a better understanding

Metacognition- Being aware and fully understanding one's own thinking

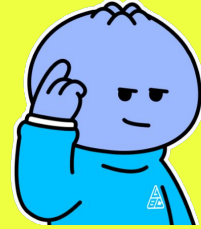
After teaching a concept, challenge students to use it in a mini-task. For example: Sketch a quick cartoon, draft a fake text or tweet, or explain the concept to a younger student.

Ask them to create, connect, or solve using the skill—**the goal is not to summarize the concept but to use it.** Celebrate speed and creativity—not perfection. Share a few examples publicly to validate the effort.

In my English class, we use brain dumps after new concepts. After a lesson on analyzing tone in nonfiction, students put away notes and spend two minutes writing down everything they remember: definitions, examples, why tone matters. **There is no pressure for perfection.**

At first, students are hesitant: They aren't used to struggling for recall. As time goes on, they expect brain dumps and even ask for them.

Part 4: Memory and Retention



The IMPOSSIBLE Memory Test



(6:29)

Now, recall what do you remember from your 8 instructional practices list??

Turn and talk to your table team about what you recall.

What do you remember and know about each?

Recite the list of practices to a partner. How well did you do?

INSTRUCTIONAL STRATEGIES FOR MEMORY & RETENTION

Retrieval Practice

Spaced
Learning/Repetition

Interleaving

Create Desirable Difficulties

Teach it to another person

RETRIVAL PRACTICE

**Recalling Information from memory with
the help of prompts**

- **Exit Tickets**
- **Bell Ringers**
- **Turn and talk with a prompt**
- **Brain dump**
- **etc.**

Spaced Learning/Repetition

Spacing out the learning of a topic over time and revisiting or re-engaging in the material at standard intervals.

Examples:

- **Returning to a topic every 10 minutes with a completely different topic in-between**

INTERLEAVING

Switching between different types of problem
or different ideas within the same lesson of
study.

Create Desirable Difficulties

Race Car Challenge...wheel and axle didn't work, but through trial and error multiple times, he got it to work!

Domino Math---When a student says, that's too hard. We need to respond opportunities for leveled challenges. Start with an “easy” task or step, then, show them how to work into more challenges as opposed to just quitting or stopping.

Go ahead...let them teach it to someone!



Without reinforcement, we forget almost everything we learn. Decades of research show that unless an effort is made to retain new information:

- 50% of new information disappears within an hour,
- 75% is gone by the next day, and
- Up to 90% fades away within a week.

If students forget what we teach, it's not a sign that they aren't smart. It's a sign that we need to build stronger connections to help them hold on to it.

Memory isn't built by covering content once—it comes through **retrieving, connecting, using, and revisiting over and over, until it sticks.**

Brain-Based Strategies to Boost Engagement





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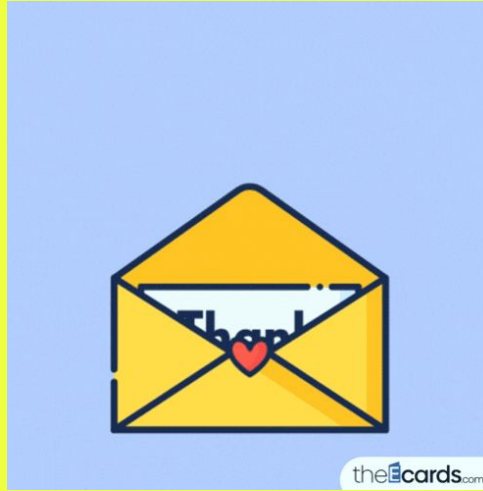
<https://tinyurl.com/ENGAGE26FB>

SCAN HERE >





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