

Putting Executive Functioning Skills to Work in the Pre-K Classroom



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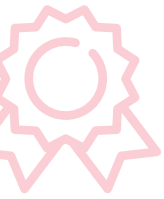
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MISSISSIPPI
DEPARTMENT OF
EDUCATION

Office of Early Childhood





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ALL Students Proficient and Showing Growth in All Assessed Areas



2

EVERY Student Graduates from High School and is Ready for College and Career



3

EVERY Child Has Access to a High-Quality Early Childhood Program

EVERY School Has Effective Teachers and Leaders

4



EVERY Community Effectively Uses a World-Class Data System to Improve Student Outcomes

5



EVERY School and District is Rated “C” or Higher

6



VISION

To create a world-class educational system that gives students the knowledge and skills to be successful in college and the workforce, and to flourish as parents and citizens



MISSION

To provide leadership through the development of policy and accountability systems so that all students are prepared to compete in the global community

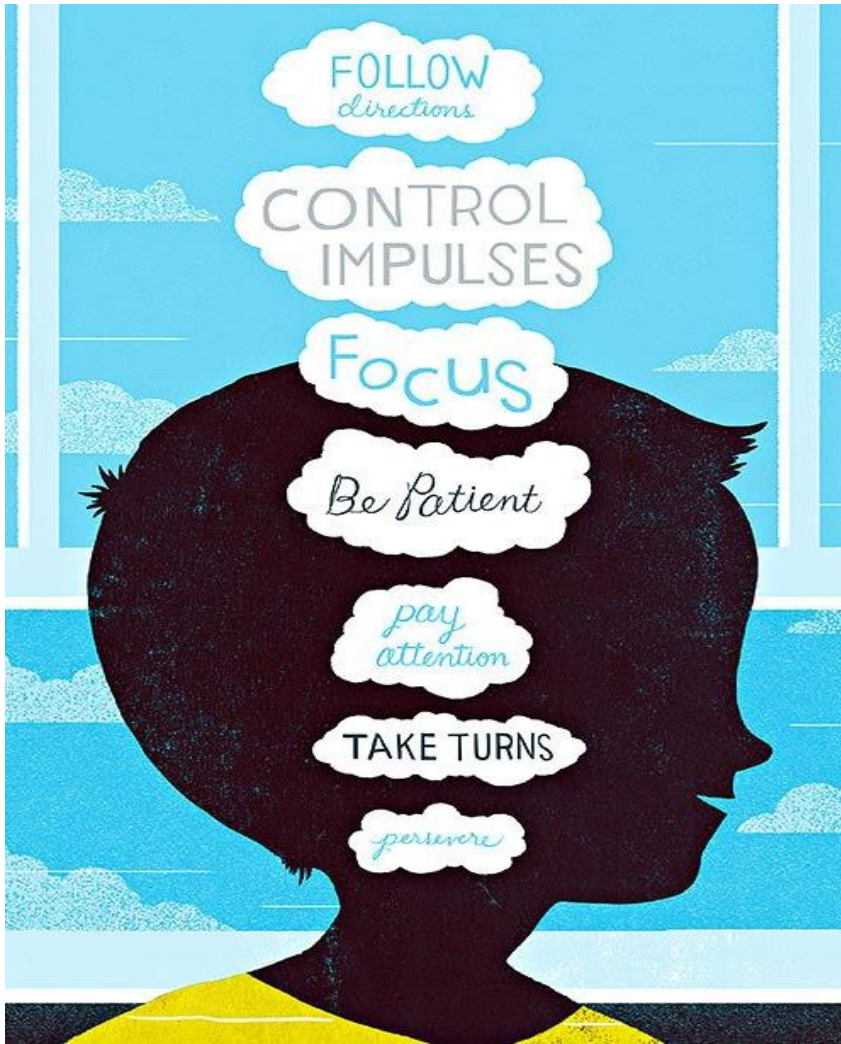
When was the last time you...

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- Set a goal
- Worked on a task
- Understand multiple demands
- Had to be productive
- Access your progress along the way
- And adjust the plan, if necessary
- All while avoid multiple distractions



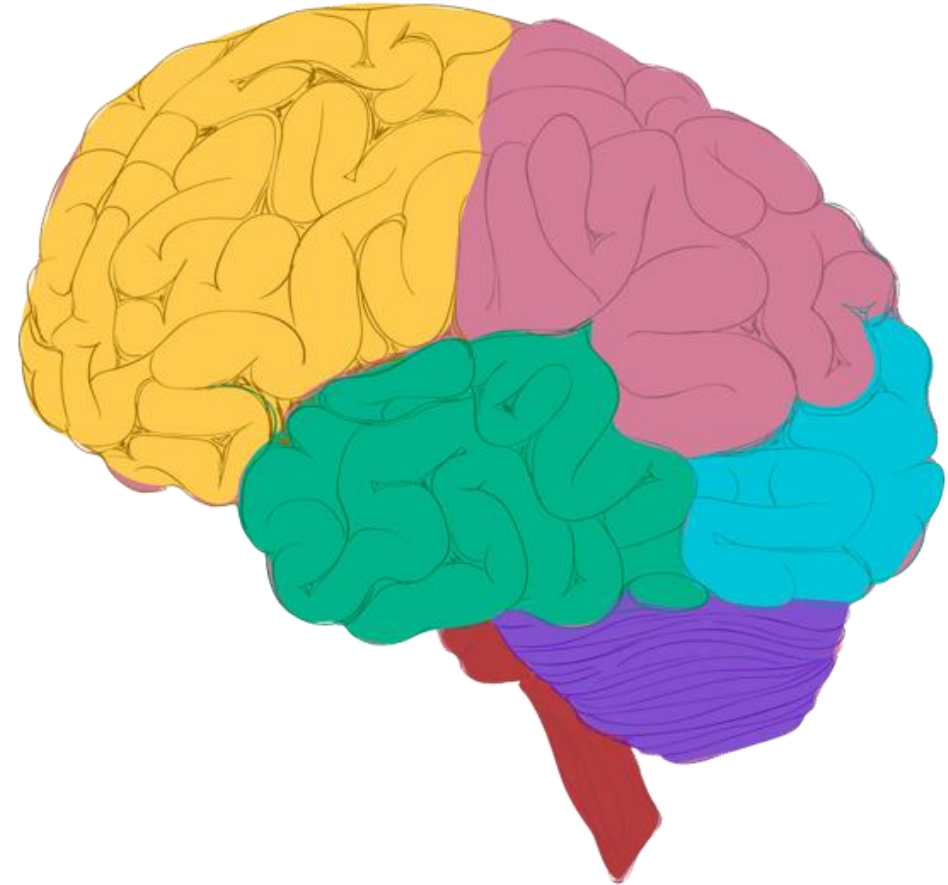
What is Executive Function?



Executive functions are a set of cognitive processes or neurologically-based skills such as mental control and self-regulation that are necessary to perform functions that help us reach our goals.

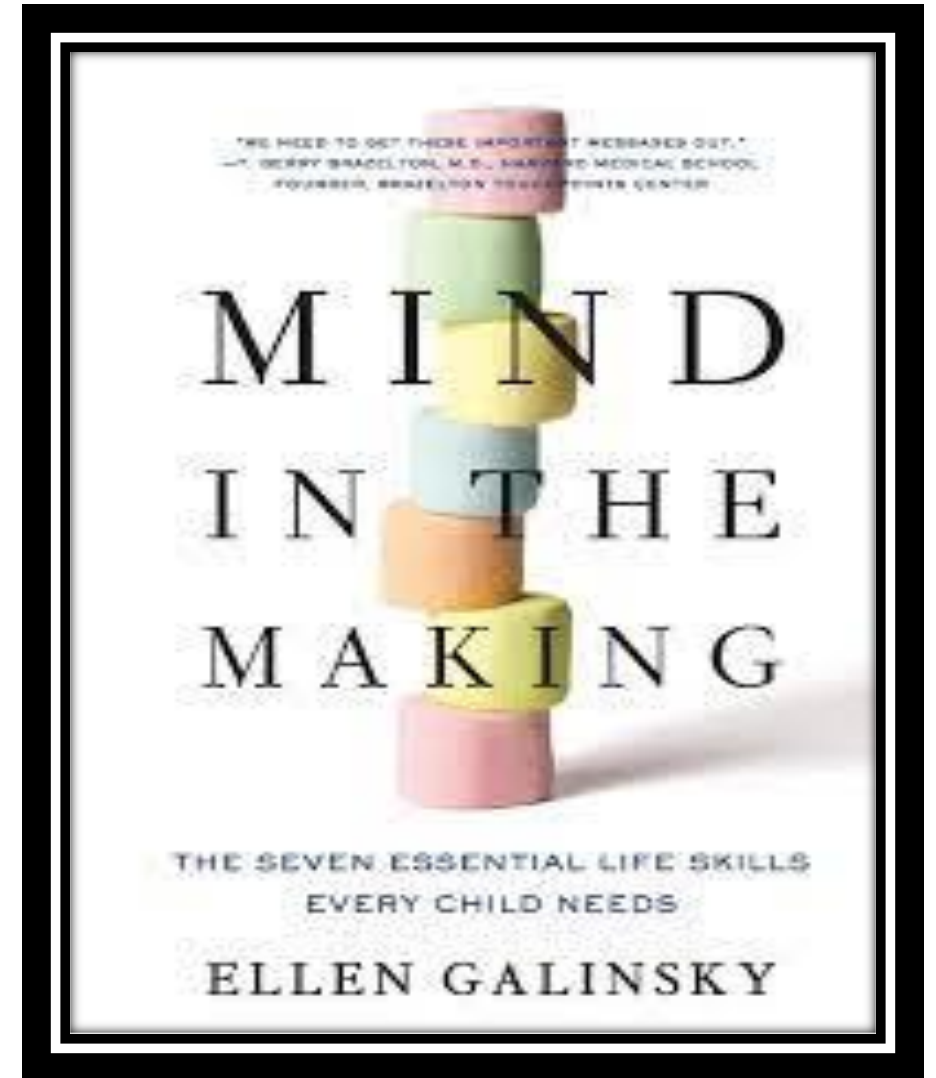
Where Are Executive Functions Formed?

Executive functions are a set of cognitive processes or neurologically-based skills such as mental control and self-regulation that are necessary to perform functions that help us reach our goals.



What Does Research Tell Us About Executive Function? 7

According to the book *Mind in the Making*, "more and more evidence is starting to show the skills of executive functions and the ability to use them will predict how children will do later in school and can predict success better than IQ test."



Executive Function: Skills for Life and Learning 8



Four Main Components of Executive Functioning



FOCUS



COGNITIVE
FLEXIBILITY



WORKING
MEMORY



INHIBITORY
CONTROL

To focus and direct our attention towards a specific interest to achieve our goals

- Be flexible
- Change demands or priorities



Why Focus on an Important Skill?



- Research shows that the stronger a child's attention skills are the more successful they will be in school especially in math and reading
- The more penetrating our attention, the richer and deeper learning that occurs stronger a child's attention skills are the more successful they will be in school especially in math and reading
- The more penetrating our attention, the richer and deeper learning occurs



What Does Research Say about the Skill of Focus and Attention? 12

- Strengthens listening skills
- Promotes paying attention
- Enhances concentration
- Improves productivity and efficiency
- Helps children achieve internal goals





- Establish routines and plan activities
- Divide bigger tasks into smaller steps
- Set goals and minimize distractions



Sensory experiences



Sleep/Rest



Exercise

What three factors maximize a child's ability to focus and pay attention?



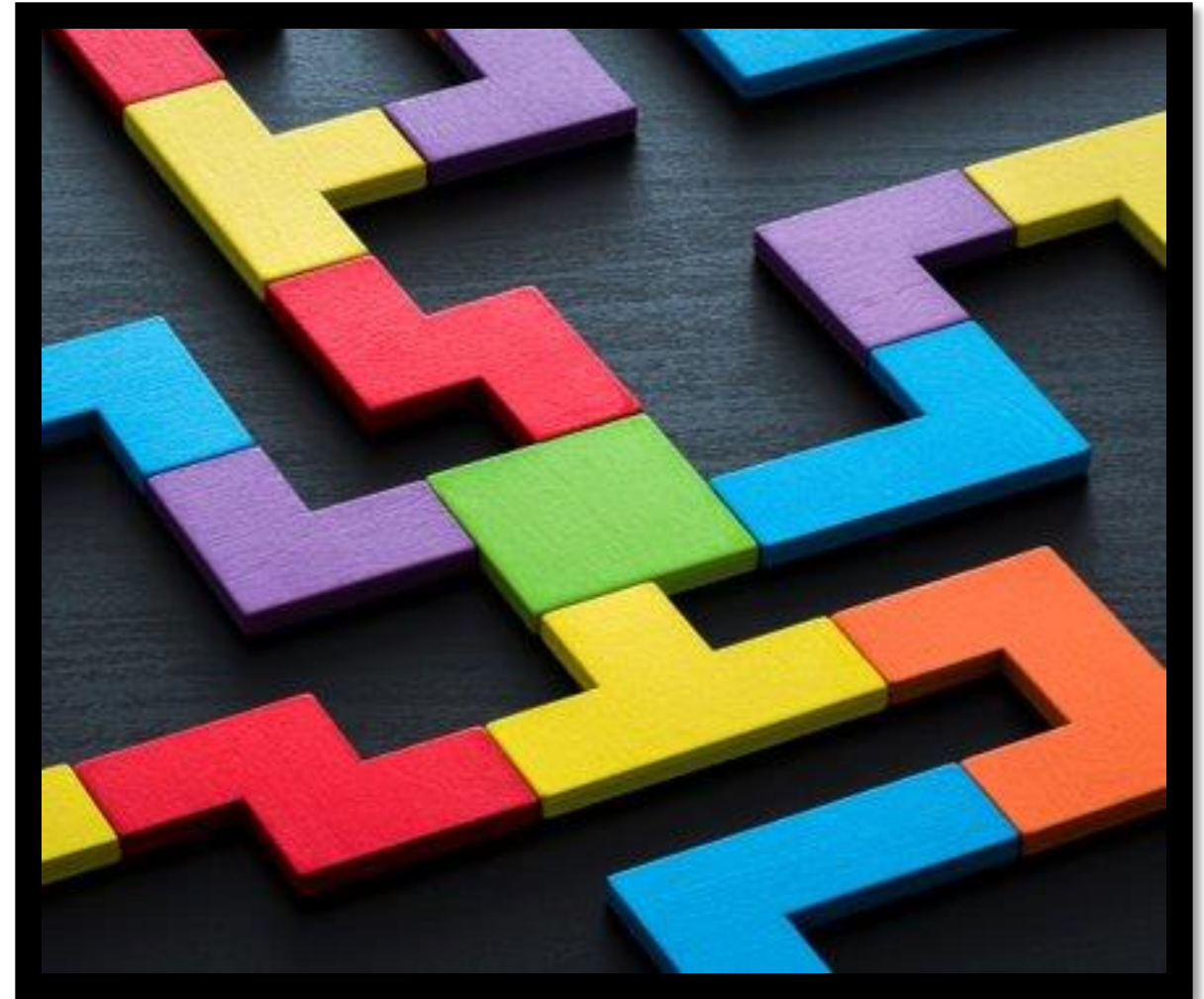
Activities and Games to Strengthen Focus and Attention Skills

- Guessing games
- I-Spy games
- Puzzles
- Musical Chairs
- Organized outdoor activities
- Head Shoulders, Knees and Toes
- Fingerplays

Cognitive Flexibility

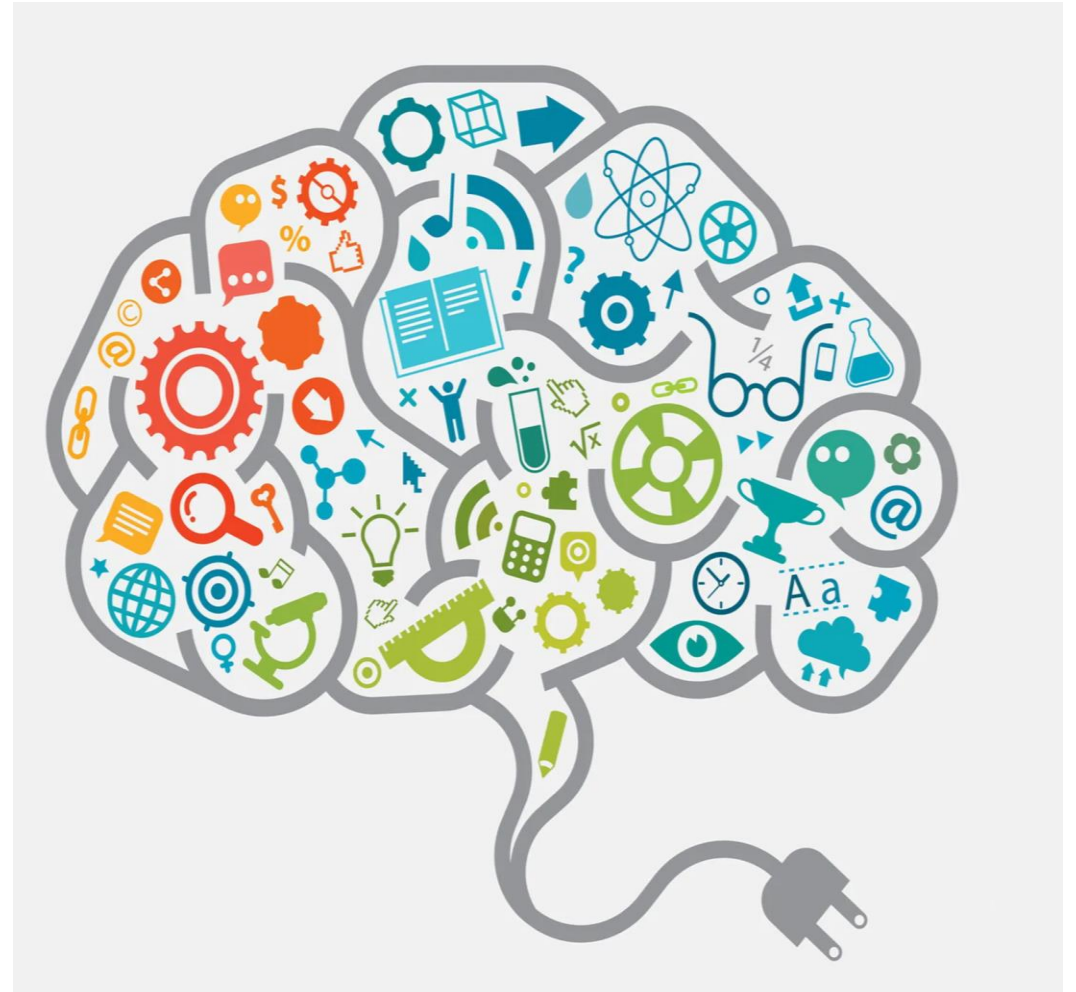
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Cognitive flexibility is to change perspectives or the focus of attention; adjust to change, demands or priorities.



What Does Research Say About Cognitive Flexibility? 18

- In June 2021, researchers tested the problem-solving abilities of monkeys and then they also performed the same test on humans
- 100 percent of the monkeys demonstrated cognitive flexibility by finding a shortcut but only 60 percent of humans did the same
- Practicing cognitive flexibility can create new neural pathways in your brain and improve your cognitive flexibility skill



Why Is the Skill of Cognitive Flexibility Important? 19



- Increases your ability to adapt to new situations
- The ability to juggle multiple concepts at once
- Improves interactions with peers
- Teaches how to act appropriately in varying situations
- Multiple perspectives skill set
- Strengthen creative problem solving

What Can we do to Promote Cognitive Flexibility Skills? 20



- Engaging in outdoor activities
- Be flexible
- Participate in pretend play
- Experiment/transform things
- Teach simple stretching exercises

Cognitive Flexibility In Action

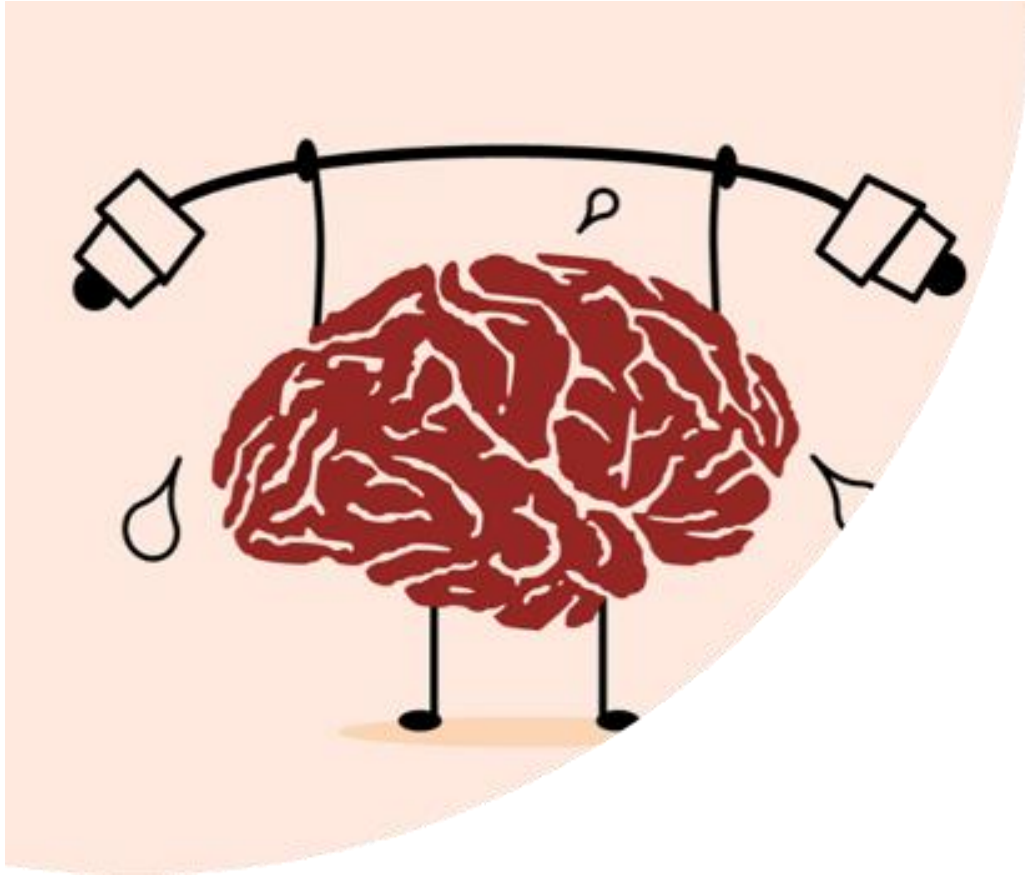
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Activities and Games to Strengthen Cognitive Flexibility Skills

- Promote pretend play
- Make up stories
- Sorting activities
- Animal act-out
- Yoga or dance





- Research shows a correlation between high working memory and success in school for a child
- Working memory is more accurate at predicting literacy skills than IQ
- Working memory is four times more accurate in predicting math skills than IQ



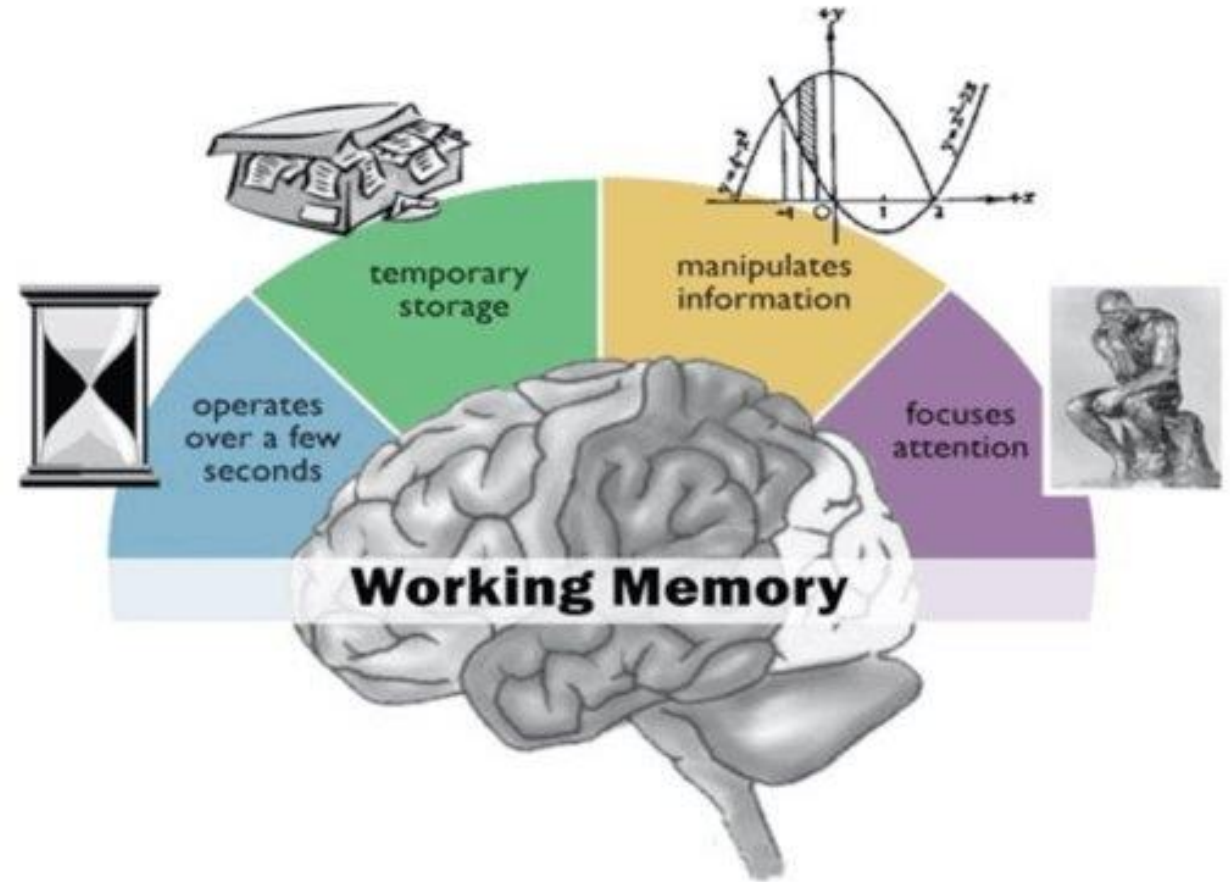
Inhibitory Control

The ability to hold and process information in our minds for a brief period of time and recall it.

Why is Working Memory Important?

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- Allows children to focus on important stuff and ignore distractions
- Helps children prioritize incoming messages
- Facilitates quick thinking and responses
- Keeps emotions in check
- Alerts you when you need to change directions





What Can We Do To Promote Working Memory Skills? 27



- Play games with rules
- Encourage counting and sorting activities
- Read books or sing songs with multiple parts to remember
- Encourage children to make a play plan

Activities and Games to Strengthen Working Memory

- Sequencing or putting things in order
- Having a visual schedule
- I-Spy games
- Storytelling
- Hide and seek
- Scavenger hunts

Inhibitory Control

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Inhibitory control is the ability to inhibit or control impulsive (or automatic) responses and create responses by using attention and reasoning.



Testing the Limits of Inhibitory Control

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What does Research say about Inhibitory Control Skills?

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Children who can control their impulses are more independent, have more friends, develop broader vocabularies, feel more confident, and make better choices.



- Model words that suggest the feelings of others and encourage children to name their feelings
- Make it clear that actions affect others
- Foster empathy
- Encourage autonomy and independence to build self-confidence





- Help children think of new ways to solve problems
- Discuss appropriate behaviors and help children to think about their choices
- Model self-control when dealing with stress or frustration
- Model self-discipline, kindness, and model self-talk when working out problems
- Discuss and share your own thoughts and feelings and model how to use calming techniques



Activities and Games to Strengthen Inhibitory Control

- Peg-Tapping Game
- Day-Night Game
- Opposite of Simon Says
- Red light –Green light
- Freeze dance

Mind in the Making Book

Galinsky, Ellen, *Mind in the Making, The Seven Essential Life Skills Every Child Needs*. Harper Collins, 2010.

Learning Works For Kids

<https://learningworksforkids.com/2013/12/5-fun-activities-for-developing-kids-flexibility-skills/>

Center on the Developing Child

<https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/> - PDF
Guide about EF

Curious Neuron

<https://www.curiousneuron.com/childdevelopmentarticles/2020/3/29/environment-parents-and-focused-attention-in-toddlers>



THANK
YOU!

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