

Rhythm, Tempo + Timing

Motor rhythm and timing are precursors to behavioral and academic learning. Further, patterning which is a central element of learning, coincides with tempo, rhythm and timing in both reading and math, Center on the Developing Child - Harvard, 2015.

Classroom physical activity benefits students by:

- Improving their concentration and ability to stay on-task in the classroom.
- Reducing disruptive behavior, such as fidgeting, in the classroom.
- Improving their motivation and engagement in the learning process.
- Helping to improve their academic performance (higher grades and test scores).
- Increasing their amount of daily physical activity.

The image features a central white rectangular area with a grey border. Inside the white area, three overlapping circles in shades of blue are arranged horizontally. A horizontal grey banner with rounded ends is positioned across the middle of the circles. The text "Musical Thinking" is written in white, sans-serif font on this banner. The background outside the white area is a light grey color with a fine grid of small dots. There are also several colored semi-circular shapes: a teal one on the left edge, a pink one on the top edge, an orange one on the bottom left edge, and a red one on the bottom right edge.

Musical Thinking



5 SIMPLE STEPS
To Teaching Children
How They Think

The Quick Start Manual

By Lynne Kenney, PsyD

Illustrated by Megan Garcia

Musical Thinking is a cognitive empowerment strategy utilizing music, movement and rhythm that teaches children how they think and learn helping them gain better control over their approach to daily tasks and activities related to learning and behavior.

Musical Thinking™

By Lynne Kenney, PsyD



Quick Rick
THE QUARTER NOTE
I'm recalling!

Musical Thinking™

By Lynne Kenney, PsyD



Slow Mo
THE HALF NOTE
I'm encoding!

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By Lynne Kenney, PsyD



Thinkerbell
THE WHOLE NOTE
I'm thinking!

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Bess Rest
THE REST NOTE
I'm storing!



We Can Teach Executive Function Skills



How do you define
executive functions?

Where do executive
functions reside?

THINK Better Learn More

Improving Executive Functions

Executive functioning (EF) is a collection of self-regulatory control processes that are divided into core domains of working memory (i.e., maintain/manipulate data not perceptually present), inhibition (i.e., inhibit or control of attention, thoughts, behaviors), and flexibility (i.e., shift flexibly between tasks/sets; Diamond 2013; Miyake et al. 2000), Kavanaugh et al., 2018.



Self-Control Attention Memory

SAM

Self-Regulation
Self-Control
Attention
Working Memory
(Cognitive Flexibility)



30+

Alerting Attention	Memory Strategy	Time Allocation
Applying Past Knowledge	Motor Management	Time Estimation
Balance	Motor Planning	Time Monitoring
Cognitive Flexibility	Motor Sequencing	Visual Scanning
Cognitive Persistence	Narrative Language	Working Memory
Coordination	Organization	
Creative Thinking	Planning	
Critical Thinking	Previewing	
Decision Making	Prioritizing	
Emotional Regulation	Problem Solving	
Exploration	Project Planning	
Focused Attention	Reflection	
Impulse Control	Rhythm	
Inhibition	Sustained Attention	
	Task Management	

Meta-Cognitive Skills

Thinking about thinking - The act of recognizing that one possesses thoughts, then reflecting on what those thoughts are.

Critical thinking - Analyzing, decoding and examining thoughts, knowledge, actions, feelings and experiences.

Creative thinking - Generating new or novel ideas. Reshaping, reframing and taking action on knowledge, information and activities in a new or novel manner.

Applying past knowledge - Using what one has learned or knows to learn novel content, problem solve, make decisions, think, speak or act.

Self-Regulation

Self-Regulation entails aspects of:

Sensory Regulation (perception, response and management of sensory stimuli)

Energy Management (intervening to move energy to an "alert state of calm")

Emotional Regulation (ability to appropriately modulate emotions in situational contexts)

Self-Control (conscious monitoring and responding to stimuli to effect appropriate cognitive, emotional and behavioral responses from moment to moment)

Attention

Alerting - Moving to a state of cognitive readiness.

Selecting - Moving one's attention and focus to a specific target stimulus.

Attending - Directing meaningful energy and attention to a specific target stimulus.

Sustaining - Maintaining attention on a specific target stimulus, long enough to take action on it.

Monitoring drift - Observing the mind becoming off-task.

Re-alerting - Bringing attention back online.

Re-selecting - Choosing the current relevant target stimulus (after drift).

Dividing - Maintaining attention to two related tasks within a brief period of time.

Alternating - Shifting attention from one target stimulus to another within a brief period of time.

Disengaging - Withdrawing one's attention or focus from a specific stimulus.

Re-directing - Shifting attention from one stimulus to another with purpose or intent.

Memory

Working memory - The cognitive system responsible for transiently holding or maintaining necessary information or data ready-at-hand for relatively immediate access, in a short period of time.

Processing - The cognitive act of perceiving and responding to a stimulus, often under time constraints.

Short-term memory - The cognitive system responsible for the holding of information for a limited amount of time, usually less than several minutes.

Long-term memory - The cognitive system responsible for the storage of information for the long term, often permanently.

Storing - The process of consolidating cognitive, motor or emotional knowledge.

Encoding - Taking information into the memory system and registering it as meaningful in preparation for storage or retrieval.

Retrieval - Accessing previously stored information.

Utilization - Taking action on previously stored information.

Synthesizing - Combining parts of information or knowledge for action, utilization or meaningful application.

Cognitive Control

Cognitive control is the process of thinking that supports flexible, adaptive responses and complex goal-directed thought.

Persistence - Adhering to a task or course of action without hesitation, in spite of obstacles.

Shift - Putting aside one thought, feeling or action and replacing it with another.

Flexibility - Shifting emotional valence to a thought, feeling or action with positivity; refraining from becoming rigid or stuck.

Refraining from Distractions - Refraining from diverting attention away from a salient stimulus to another, often non-relevant stimulus; losing focus.

Refraining from Perseveration - Resisting, reframing or shifting from persistent thoughts.

Emotional Regulation

Emotional Regulation - The ability to respond, in a measured manner, to life circumstances and experiences.

Recognition - To be aware of a change in internal energy states or emotions.

Identification - To know, recognize or understand a specific emotion or feeling.

Labeling - To put a meaningful name or category to an energy or emotional state.

Categorizing - To make sense of an emotional experience by placing it in a group or category with past experiences, circumstances or situations.

Escalation - An increase in an internal energy state related to the emotional response to an experience, circumstance or situation.

De-escalation - A decrease in an internal energy state related to the emotional response to an experience, circumstance or situation.