

What does this have to do with
parenting, teaching, and helping kids?
EVERYTHING



The Neurosensory Profiles of Our Children are
Changing

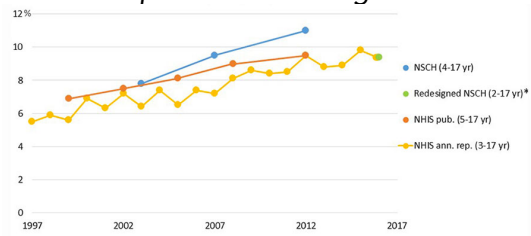


Fast Facts from the CDC and DOE

- Rate of anxiety has increased from 7.1% to 9.4% in teens pre-pandemic
- The number of children receiving special education is up from 11.6% in 2010 to 15.9% in CT in 2022
- 15% of kids receiving special education under Other Health Impaired compared to only 12% for Autism



Percent of Children with a Parent-Reported ADHD Diagnosis



<https://www.cdc.gov/ncbddd/adhd/timeline.html>



It's not reality that shapes us,
but the **lens** through which
your brain views **the world**
that shapes **your reality**



How do You as a Parent, Teacher, or Camp Counselor Respond Better?

- Be an Observer (play, peer interactions, communication, coordination, use of eyes, self-regulation skills)
- Ask Sensational Questions (likes/dislikes, free play, preferred activities)
- Change your Lens! (Understand that neurodiversity in a digital world in the new norm and we need to create supportive environments for kids to learn and grow)



*Let's Start at the Foundation with Movement
(This is where the Body Activated Learning
Framework comes in)*



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New Delhi, India

The Senses and Learning

Problem-Solving, abstract reasoning, creativity,
citizens of the community, volitional behavior
(Executive function, ideation)

Integration with cognitive and language concepts
(Praxis/Play/Communication/Purpose/)

Internal Feedback/Learning/Sensorimotor
development

Tactile, Visual, Auditory Exploration of Materials
and the world through movement



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What is the "Right Kind" of Movement

- **Energizing Exercise:** Cardiovascular exercise increases the production of Brain Derived Neurotrophic Hormone, which stimulates neurogenesis (Best, 2010) - **Does not need to be coordinated. Vestibular input also increases heart rate**
- **Activate Exercises and Kinesthetic Learning Stations:** Cognitively engaging exercise has a stronger effect on executive functions of adaptability and goal-directed behavior (Best, 2010)
- **Restoring Exercises:** Yoga and Breathing reduce stress and cortisol levels (Perciavalle, et. al, 2016), which is responsible for facilitating the process of cell death, reduction in dendrites available for synapses and shrinkage in the limbic system
- **Regrouping:** Taking Breaks from visual and postural demand



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Stretching and Breathing

The movement strategy recommended by ergonomists to Dentists and office workers that can be applied to children to reduce the potential for back and neck pain from poor posture and tensing with computer and tablet use.

Valach, 2015



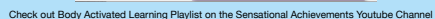
Prep! — Don't Just Redirect!



How??

- A. Modify a child's regulatory state prior to task demands
- B. Facilitate more lasting changes to sensory processing through targeted exercises
- C. Use active engagement to facilitate motor learning
- D. Allow for recovery from skill to sustain participation over time





High Arousal: Frustrated, silly, anxious, unfocused, fidgeting, avoidance/controlling or possible aggression

Optimal/Just Right: Engaged, connected, listening, focused, calm and alert, attending

Low Arousal: Disconnected, tired, poor posture, slow to respond to directions or tasks, disengaged





Rope Pull Down





Front Karate Chops



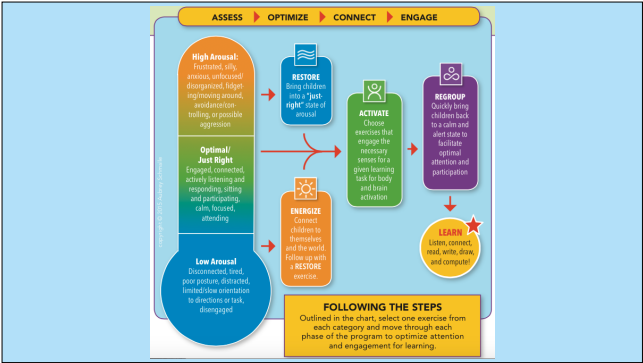


LET'S GET ENERGIZED

- * Take notice of how your body reacts or feels after trying each movement
- * Think about when and where you can incorporate these experiences in your daily routines
- * Who would benefit?



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Rhythm, Pressure, Respiration



See Saw

Goal: Restore children to an optimal level of arousal




Influencing Self-Regulation for Calming


Rhythm **Pressure** **Respiration**






The Wave






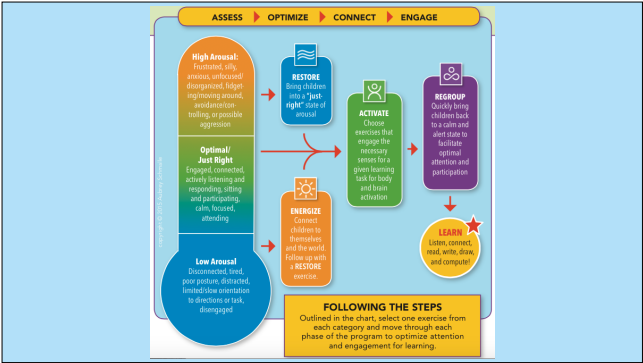
LET'S RESTORE

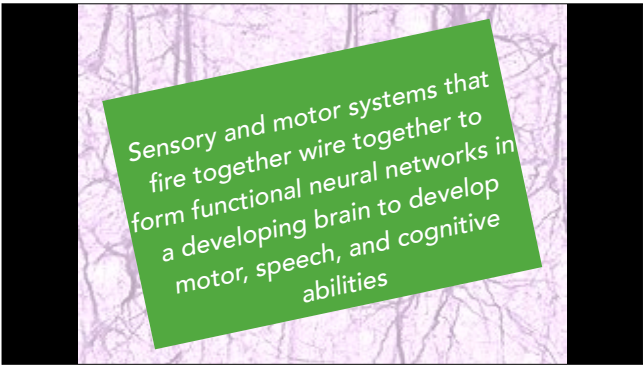
- Take notice of how your body reacts or feels after trying each activity
- Think about when and where you can incorporate these experiences
- Who would this be helpful for?





Is "de-stressing" or "waking up" effective if the number of challenges or level of difficulty doesn't change?









Activate

Move, Learn, Connect





Sit Up, Draw, Create


Get Ready, Get Set, Go

Sit Up, Listen, Engage





Vision Guides the Body





Move, Learn, Connect










Get Ready, Get Set, Go






Sit up, Listen, Engage





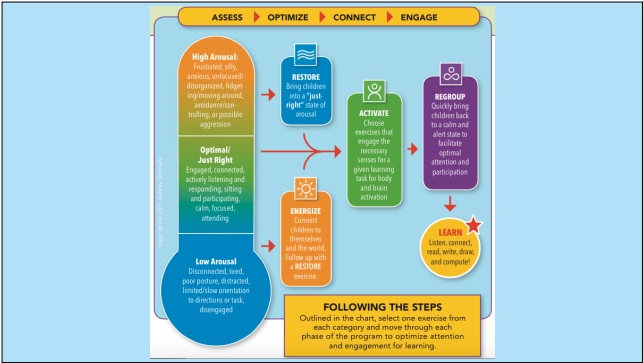
Sit up, Draw, Create





Vision Boosts - As Appropriate

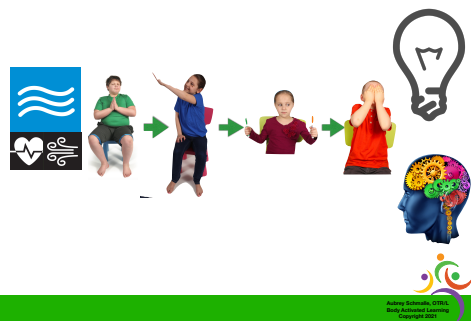








*Increase input, make connections,
generalize to the task*



**Research: Impact of Sensory Based
Movements on students in a general
education classroom**

- n=135
- Six Fourth grade classrooms (3 experimental, 3 control) x 6 weeks
- Measured outcomes: Pre and Post Testing on DIBLES and STAR reading and math assessments
- Results indicated the intervention group trended toward higher positive changes in most of the results as compared to the control group, although the differences were not statistically significant.

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