Sensory-Focused Strategies for Addressing Challenging Behaviors at Home and Classroom

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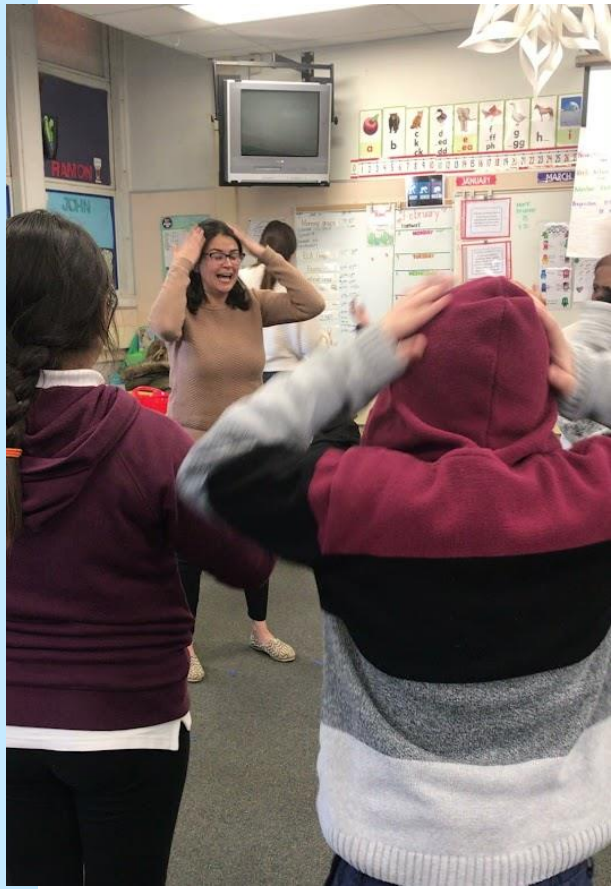
Help Group Summit, Imagining Possibilities, November 14, 2024

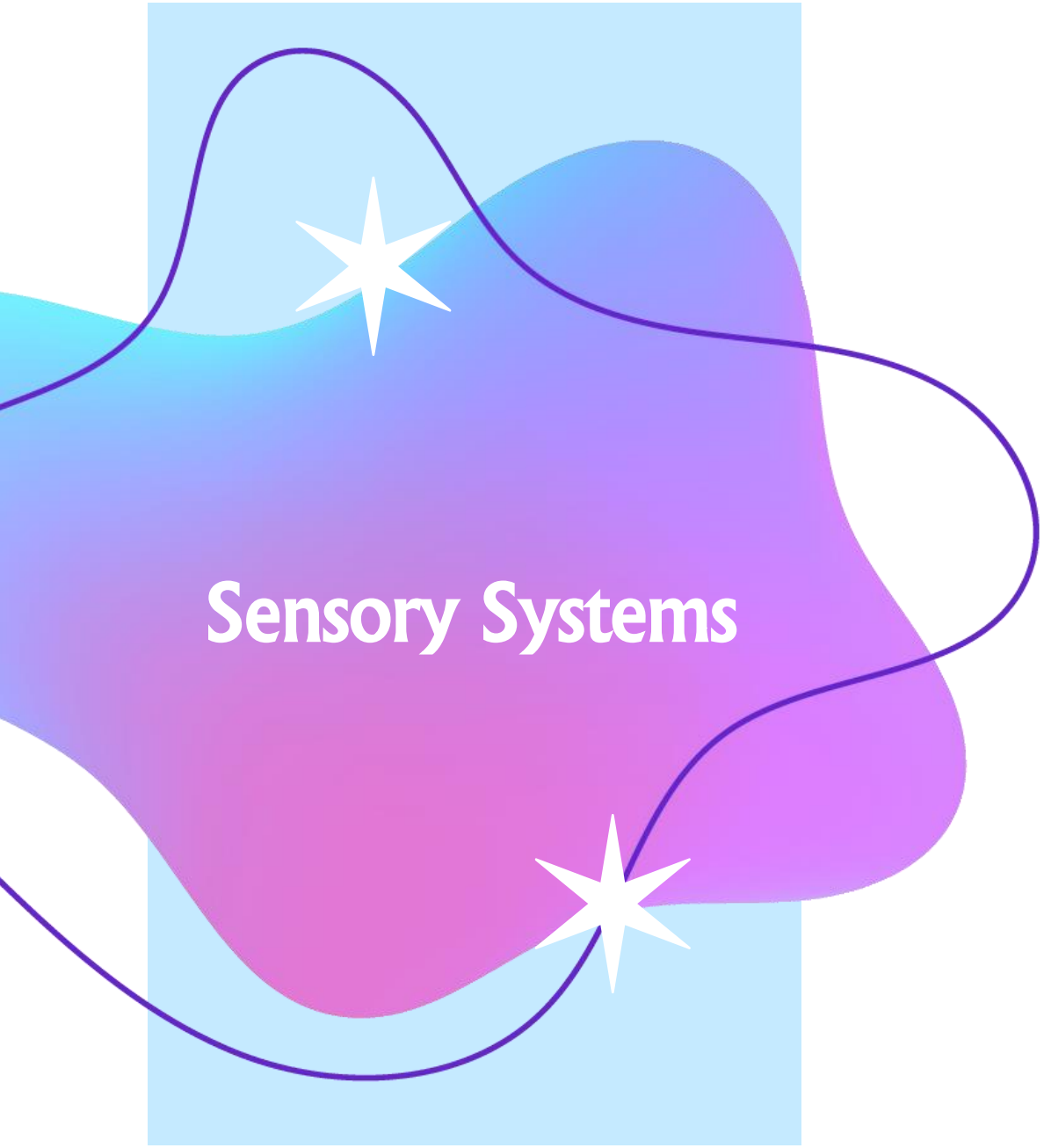
Objectives

1) Describe how sensory registration and modulation impact learning and behaviors
2) Describe the possible behavioral responses associated with various sensory registration thresholds
3) Select behavioral and sensory strategies to implement which will support self-regulation



Terminology

- Sensory Systems
- Sensory Registration
- Sensory Modulation
- Sensory Thresholds
- Sensory Strategies



1. Seeing (Visual)
2. Hearing (Auditory)
3. Tasting (Gustatory)
4. Smelling (Olfactory)
5. Touching (Tactile)
6. Movement (Vestibular)
7. Body position, Body-in-space, Kinesthesia (Proprioception)

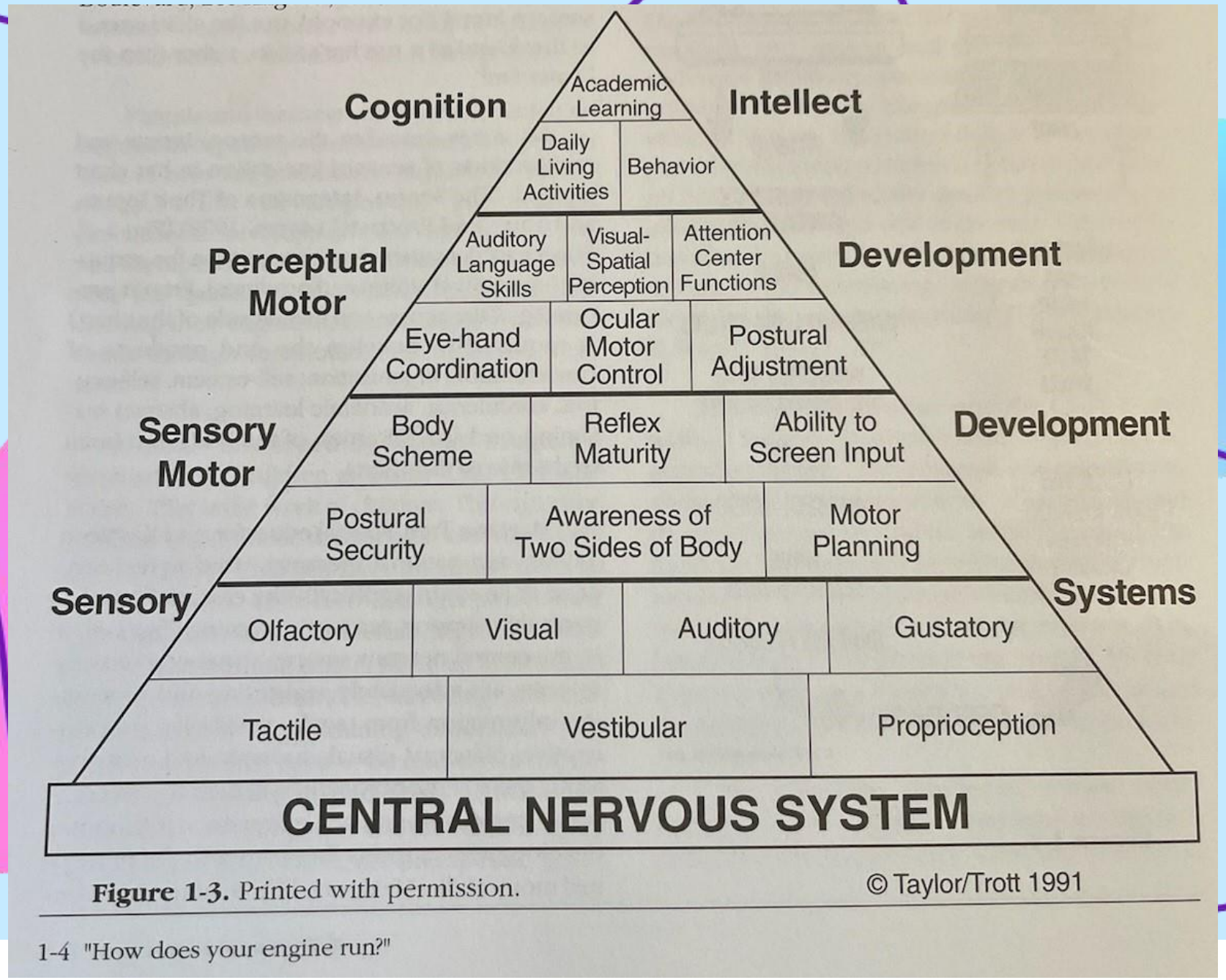
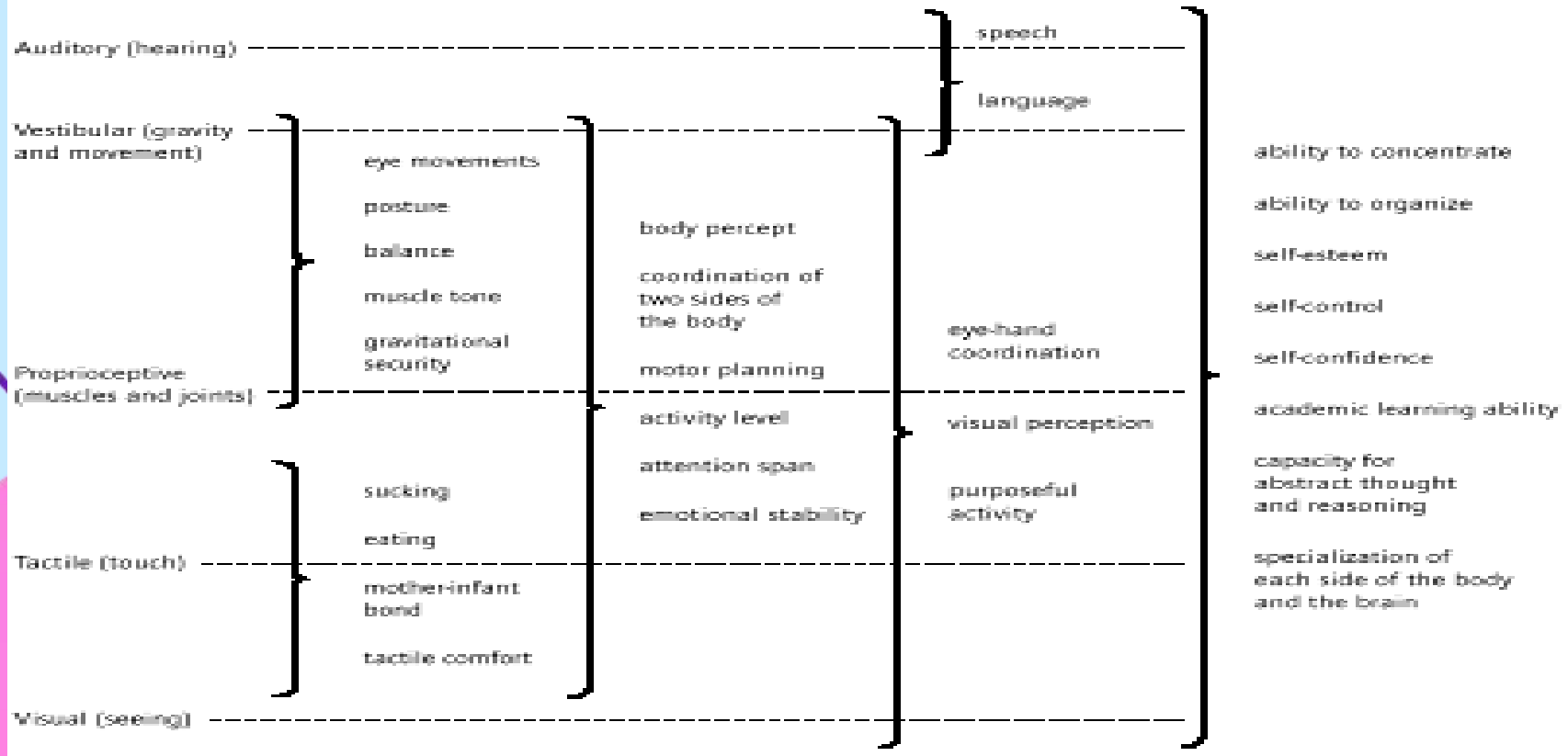


Figure 1-3. Printed with permission. © Taylor/Trott 1991

SENSORY INTEGRATIVE PROCESSES



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From: Ayres, A. J. (1979). *Sensory Integration and the Child*. Los Angeles: Western Psychological Services.

Sensory Thresholds (Dunn's Sensory Processing Continuum)

Neurological Threshold	Passive	Active
HIGH threshold	Poor or Low Registration "Bystander" • May appear uninterested • Misses sensory input • Unaware • + Tends to be easy going • + Not bothered by disruptions • - info can be missed • - Easily get's lost	Sensation Seeking "Seeker" • Works to obtain sensory input • Can't get enough • + Creative, new ideas • - interrupts flow • -Routines are boring • -Drives others crazy
LOW threshold	Sensitivity to stimuli "Sensor" • Distractible, vigilant • Detects-sensory sensitive • Bothered by sensory input + Good detector of other's mood + sensitive to others - Easily overwhelmed - Trouble working in busy place	Sensation Avoiding "Avoider" • Withdrawn or opposite • Stubborn, reactive • Spontaneity is hard +Life is orderly, predictable + Spaces neat & tidy - Need to be alone - Need to be in control

Sensory Processing

- **Sensory Registration**: recording or noticing salient environmental information (Miller & Lane, 2000) "Sensory detection"
- **Sensory Modulation** – Brain's ability to organize and regulate responses to environmental input in a graded manner (related to anxiety and ability of nervous system to recover from input)

Lane et al (2012)

Self Regulation

- "a person's abilities to regulate his or her responses to specific stimuli" including "physiological, emotional, and behavioral factors" that can be observed in early development (Roberts et al., 2007, p.555)
- *Self-regulation* = the management of emotions and behavior in socially acceptable ways across many settings
- Ability to monitor one's own behavior
- Ability to comply with a request
- Ability to initiate & cease activities according to situation
- Ability to postpose acting upon a desired object or goal

Self Regulation

- Modulate the intensity, frequency & duration of verbal and motor actions in social educational settings
- Ability to generate socially approved behavior in the absence of external monitors (Kopp, 1982; p.199-200)
- The “Four A’s of Self-Regulation” (Williamson & Anzalone, 2001)
  1) Maintain optimal **arousal** levels
  2) Maintain focused **attention** to task
  3) Demonstrate appropriate **affect**
  4) Engage in purposeful **action**

Imperatore Blanche, 2024

What is needed for Regulation, Participation, Engagement *(from a sensory perspective)*

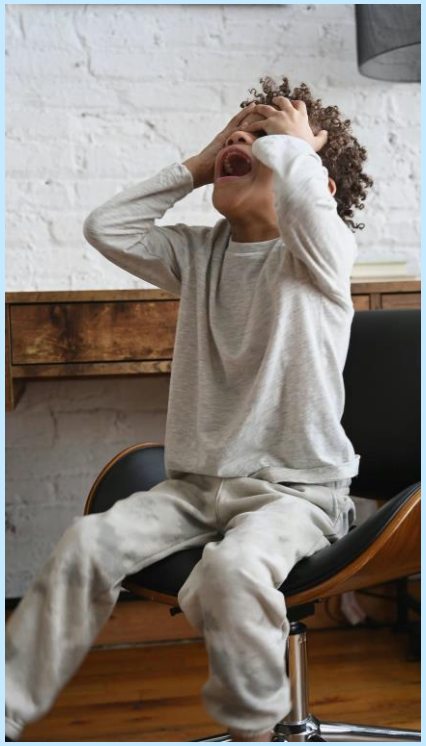
- Sensory Registration → Arousal
  - → Modulation (sensory filtering, inhibition)
    - → Attention
      - → Purpose, goal
        - → Execution

Connections: Self-Regulatory and Executive Function Mechanisms (Hofmann et al, 2012)

- Executive functions and Self-regulatory mechanisms:
  - Working memory: Top-down attention toward goal relevant information and away from attention-grabbing stimuli. Ability to keep goals in mind. Ability to suppress unrelated thoughts.
  - Behavioral inhibition: Active inhibition of impulses and habitual behaviors
  - Flexibility: Switching between different means subserving the same (self-regulatory) goal or switching between multiple goals.

Imperatore Blanche (2024), Diamant (2024), Bagetta & Alexander (2016), Josman & Meyer (2019)

What to do when you see this?



- Decreased eye contact and attending
- Not responding to being spoken to
- Hits/kicks others
- Scratches/pulls others
- Throws things to others
- Hits self
- Bites self
- Gets upset during transitions
- Tantrums and meltdowns
- Eats very few foods
- Has difficulty falling asleep

Difference between Meltdown and Tantrum

Colvin & Sheehan (2012). *Managing the cycle of meltdowns for students with ASD*. New York: Skyhorse, page 24

Meltdown

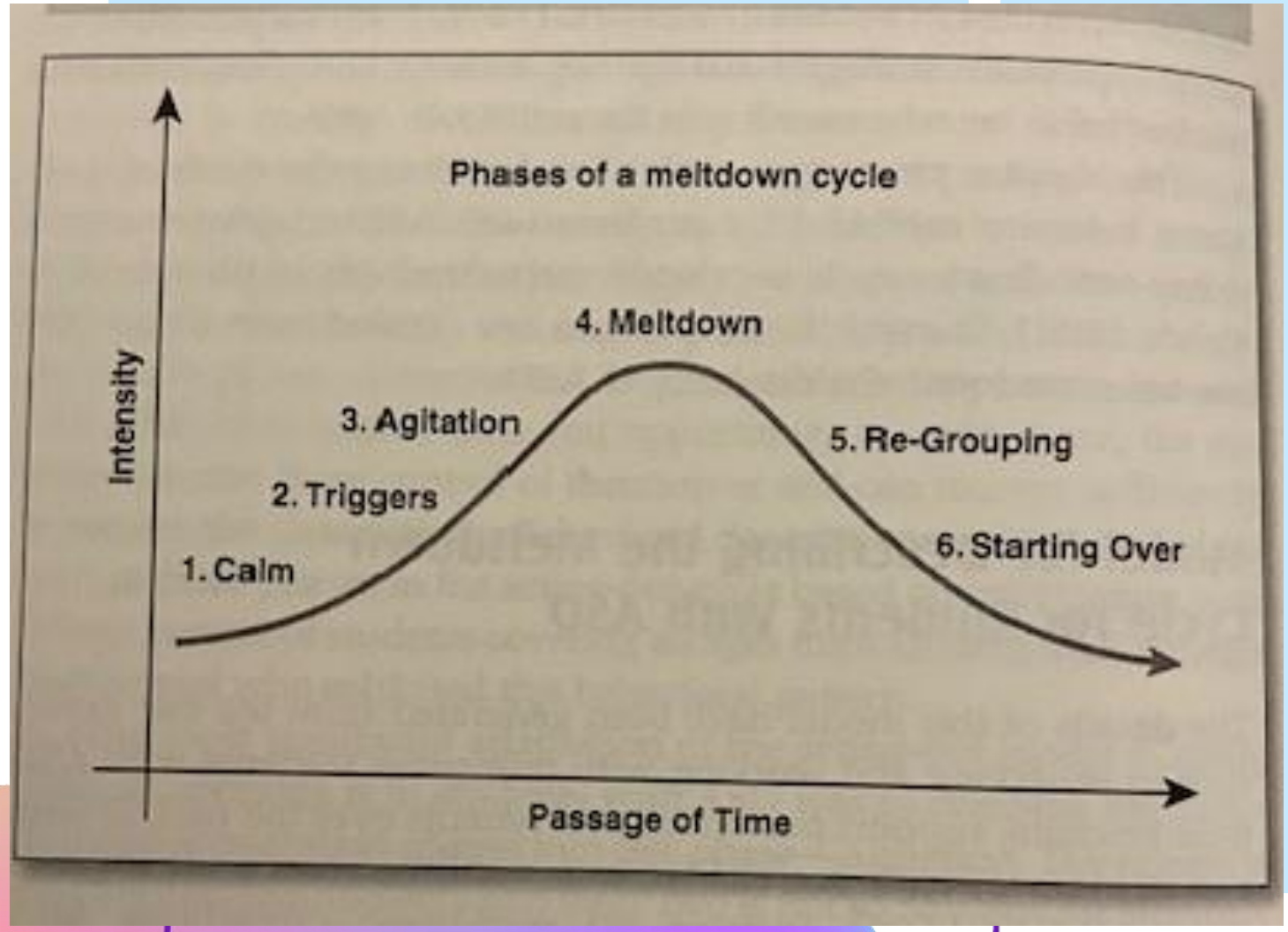
1. Often children on the spectrum
2. Inattentive to reaction of others
3. Can last for hours
4. Trigger: internal factor (sensory overload, communication failures)
5. Behavior is reactive
6. Intervention: sensory or communication management. Keep child safe while it runs its course
7. Anxiety

Tantrum

1. Normal development
2. Very aware of others watching
3. Usually short-lived
4. Trigger: External factor (wants something, own way
5. Behavior is oppositional or noncompliant
6. Intervention: focus on manipulating environment or the external factor
7. Anger

6 Phase Model for the Cycle of Meltdowns of students w/ASD

(Colvin & Sheehan 2012, pg. 30)



- What is a sensory strategy?
- What it is NOT a sensory strategy?
  - sensory stimulation
  - sensory integration

Strategies
Sensory Strategies
Strategies that include sensory

Guidelines for what you can do

Imperatore Blanche, Nakasuji, 2024

Sensory

- Remove irritant
- Read the child's need or avoidance of input
- Use inhibitory input (could be deep pressure, proprioception, vestibular, music, focus on preferred toy (weighted scarf, lycra shawl)
- Offer 'just-right' sensory experiences

Cognitive/Behavioral

- Establish & maintain routines
- Break task into manageable simpler steps
- Explain what to expect
- Set up for success (grading)
- Offer what you think they are trying to communicate
- Model words they could say
- Be consistent
- Start with familiar
- Alert Program
- Mindfulness
- Zones of Regulation

Environmental

- Use environments with fewer distractions
- Decrease sensory input
- Use natural spaces
- (natural light, nature sounds)
- Music
- Colored rooms (Heller, 2002)
  - -Red/orange-excites senses
  - -Blues/green- ↑ meditation, concentration
  - -Magenta – balances heart, emotions, vascular system

Other thoughts….

- Helping child be aware of their sensations, when they start to feel tense
- For older kids learning about their sensory profile
- Explore with child to learn the strategies that help best, when to implement “strategies” and rules about ending
- Learn how to respond rather than react

Strategies for Agitation and Meltdown Phases

Colvin & Sheehan (2012). *Managing the cycle of meltdowns for students with ASD*. New York: Skyhorse

Ideas for defusing "agitation" phase *(page 120)*

- Use empathy
- Relaxed posture
- Help student focus (direct language, visual supports
- Provide assurances & additional time (to reduce pressure)
- Passive activities (being read to)
- Movement activities
- Relaxation centers

Support during "meltdown" phase *(page 135-136)*

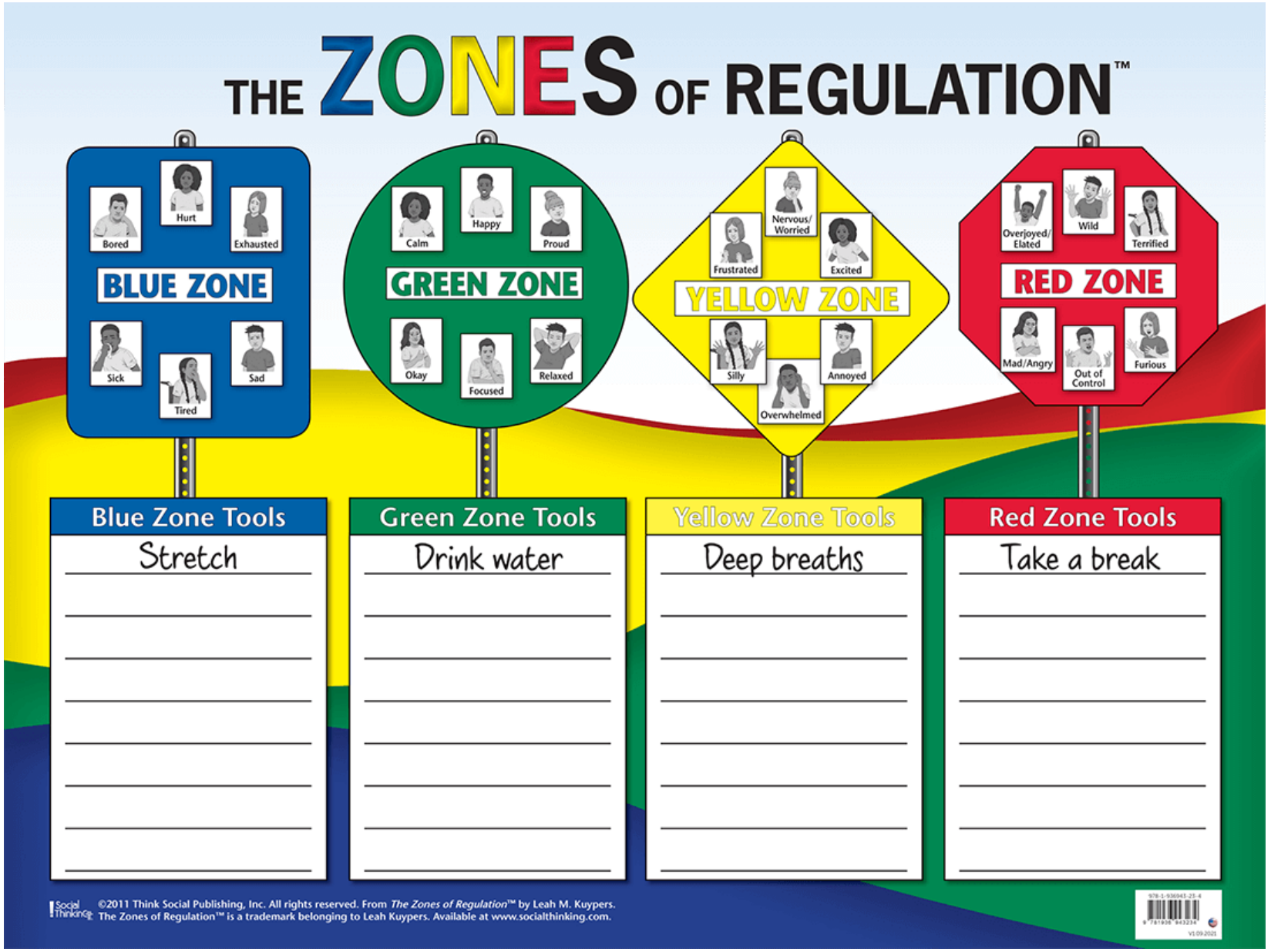
- Maintain calm, positive presence. Keep relaxed posture
- Reasoning will not help. Communicate understanding that student is having a hard time
- Lower voice and slow down speech and movements.
- Remain present (still), but give student space
- Show encouragement when student begins to settle: "Good. I am happy you are feeling better"

AVOID

- Communicating that behavior is unacceptable
- Threats or warnings
- Physical contact
- Talking firmly and seriously to student
- Assertive posture

Sensory Scale and Modulation Strategies

Rating	1	2	3	4	5
Description	Feeling Calm 	Mild Nervous 	Nervous 	Very Stressed 	Meltdown 
Challenge	Good	Cautious	Not Advised	NO	Absolutely NO!
Intervention Plan	What's Planned + 1 Challenge	+ Calming Activity What's Planned	+ Calming Activity What's Planned w/ caution	Active Intervention + Calming Activity	Passive Intervention + Calming Activity
Strategies for "Just right" state	Optional Stretching Planned Activity +1 Novel Activity	Stretching Planned Activity Consider +1 Novel Activity	Stretching Consider Planned Activity Maintain Routine ✓ Speak (slow, brief, soft)	Reduce Sensory Input Stretching (slow) Proprioceptive Activity Maintain Routine ✓ Speak (slow, brief, soft)	Reduce Sensory Input Deep Pressure Stretching (slow) Proprioceptive Activity Maintain Routine ✓ Speak (slow, brief, soft)


THE ZONES OF REGULATION™
BLUE ZONE
Bored
Hurt
Exhausted
Sick
Tired
Sad
GREEN ZONE
Calm
Happy
Proud
Okay
Focused
Relaxed
YELLOW ZONE
Frustrated
Nervous/ Worried
Excited
Silly
Annoyed
Overwhelmed
RED ZONE
Overjoyed/ Elated
Wild
Terrified
Mad/Angry
Out of Control
Furious
Blue Zone Tools
Stretch
Green Zone Tools
Drink water
Yellow Zone Tools
Deep breaths
Red Zone Tools
Take a break
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The ZONES of Regulation™

BLUE ZONE	GREEN ZONE	YELLOW ZONE	RED ZONE
Sad	Happy	Frustrated	Mad/Angry
Sick	Calm	Worried	Terrified
Tired	Feeling Okay	Silly/Wiggly	Elated/Ecstatic
Bored	Focused	Excited	Devastated
Moving Slowly	Relaxed	Loss of Some Control	Out of Control

HOW CAN YOU HELP YOURSELF?

The BLUE Zone

HOW MIGHT YOU FEEL?

SAD
TIRED
BORED
MOVING SLOWLY

WHAT MIGHT HELP YOU?

TALK TO SOMEONE
STRETCH
TAKE A BRAIN BREAK
STAND
TAKE A WALK
CLOSE MY EYES

The GREEN Zone

HOW MIGHT YOU FEEL?

HAPPY
OKAY
FOCUSSED
READY TO LEARN

WHAT MIGHT HELP YOU?

THIS IS THE GOAL!
WHAT CAN YOU DO TO GET TO THE GREEN ZONE?
HOW CAN YOU BE HAPPY, CLAM AND READY TO LEARN?

The YELLOW Zone

HOW MIGHT YOU FEEL?

NERVOUS
CONCERNED
SILLY
NOT READY TO LEARN

WHAT MIGHT HELP YOU?

TALK TO SOMEONE
COUNT TO 20
TAKE DEEP BREATHS
SQUEEZE SOMETHING
DRAW A PICTURE
TAKE A BRAIN BREAK

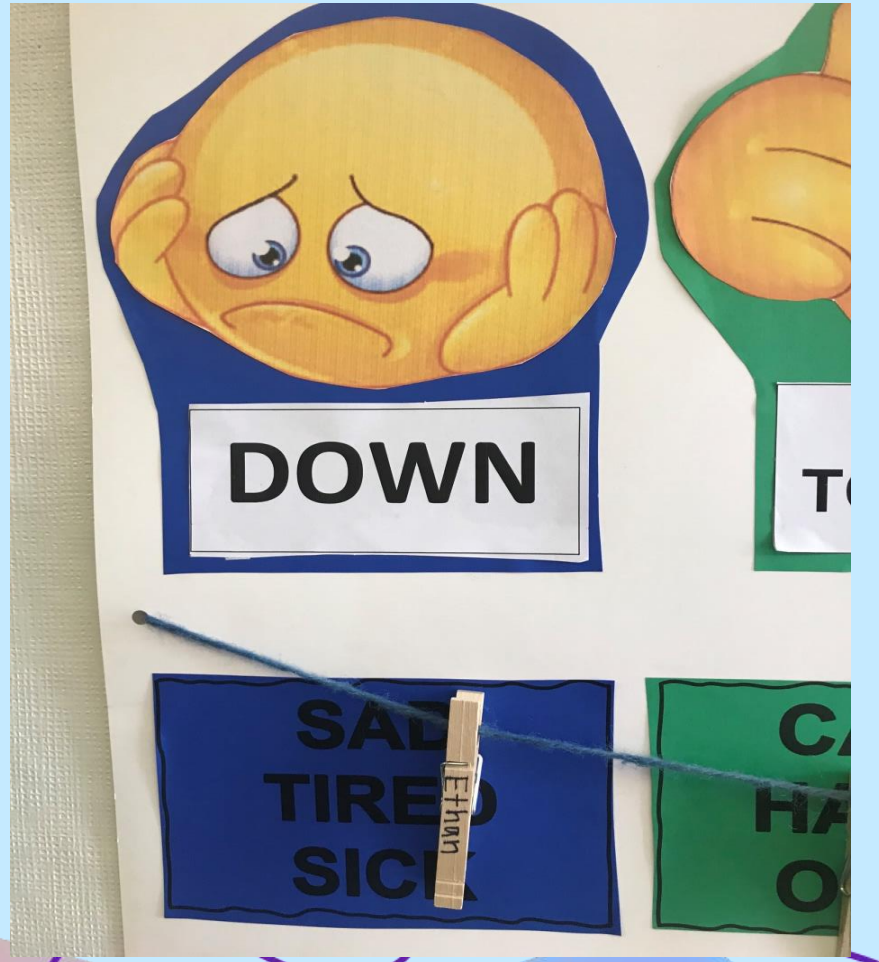
The RED Zone

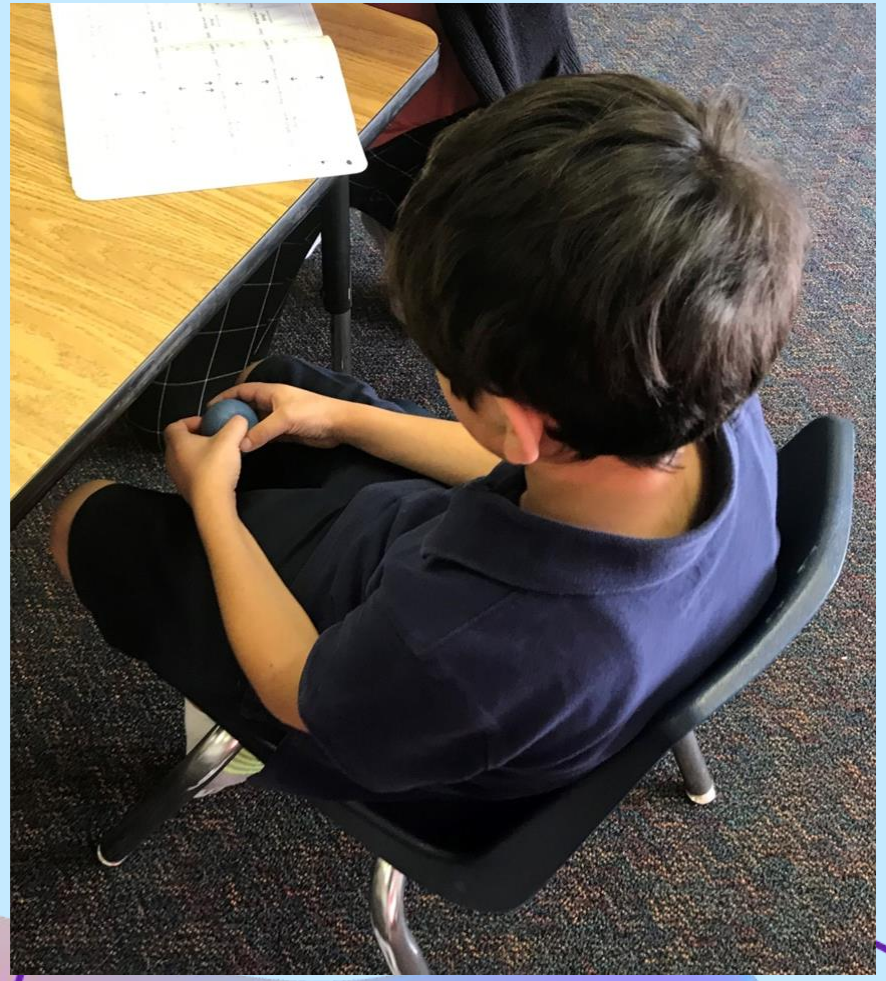
HOW MIGHT YOU FEEL?

ANGRY
FRUSTRATED
SCARED
OUT OF CONTROL

WHAT MIGHT HELP YOU?

STOP WHAT I AM DOING
MAKE SENSIBLE CHOICES
TAKE DEEP BREATHES
ASK FOR A BREAK
FIND A SAFE SPACE
ASK FOR HELP


DOWN
Ethan




EADY
LEARN
A LITTLE OUT
OF CONTROL
OUT
CONT
EXCITED
GRO CHY
FRUSTR
FRIGHT
Prince
Ethan

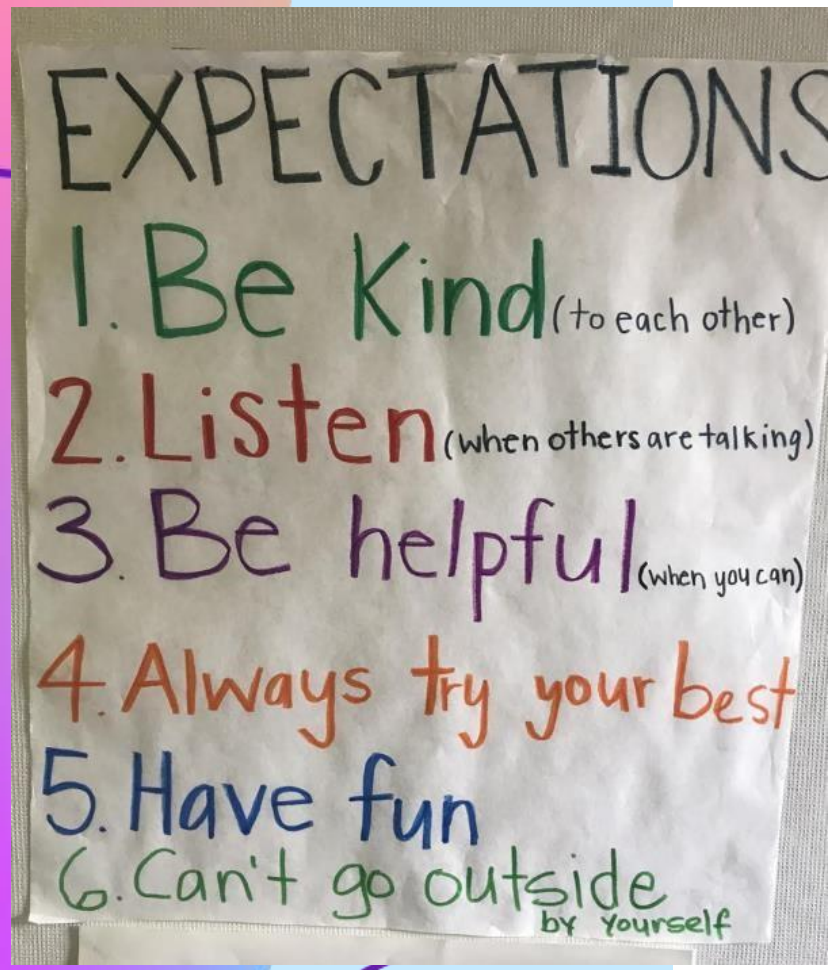
Understanding Sensory systems for Sensational Teachers: "Teaching Sensationally"

Thresholds	Daily Life	Ideas
Seeker High threshold (active)	Prefers bright spaces Hard to sit still (needs to move) Focusing seems hard Tends to be forgetful Life should be exciting	Color code, eye-catching charts Provide opportunities to move/fidget Vary intonation of voice, use gestures Use a checklist Variation (planned) to keep interest
Bystander High threshold (passive)	Easy going & flexible Has difficulty keeping track of time Not bothered by messy environments Tendency to miss info, lose things	Remember their bodies need to move too Use schedule Keep environment organized Repeat instructions, patience
Avoider Low threshold (active)	Easily overwhelmed Tendency to fight, fright, flight Prefers routines & sticking to the plan Prefers familiarity Hard time focusing	Low/natural lights, minimize noise, 'get away space' (*with criteria for use*) Routines, prepare for changes Keep environment neat & orderly Short & to-the-point explanations
Sensor Low threshold (passive)	Hypervigilant (easily distracted) Difficult focusing Slow to adjust to new places/people	Minimize interruptions as much as possible Needs specific/clear/repeated instructions Quieter/isolated work-spaces can↑ productivity

(Dunn, 2008)

Relationships

High threshold Seekers & Bystanders	• Generates good ideas • Creates novel situations • (Bystanders are easy going)	• Seekers & Bystanders work best with other Seekers & Bystanders • Avoiders & Sensors can provide structure and "organize" the team which can help Seekers
Low threshold Avoiders & Sensors	• Need control, so good at creating schedules and organizing the team • And creating order and calm environments especially since they are good at "reading the room" (sensitive to other's feelings) • The Sensors gift is in noticing details which can be very helpful for a group	• Avoiders & Sensors work well with other Avoiders & Sensors • Some could find working with Seekers & Bystanders challenging • Because bystanders can be flexible, sensors work well with them.



REMEMBER, ALL children work best in…

- Organized classroom spaces (colorful & informative, but not too busy). Model neatness
- Schedules & routines make school day predictable (which increases feeling of being safe)
- Prepare students as much as possible about any changes that will happen; what, when, how long, etc.
- Rules & expectations clearly explained and immediately reinforced and maintained as much as possible. Better to be strict and then later relax rules, than create stricture rules after a challenging moment. Requires all of us to “anticipate!)
- Respond in a way that allows children to feel heard (does not mean they get what they ask for)
- Organized (structured options) during recess and free time
- Recess should never be a consequence

Sensory Rich Activities: Proprioception

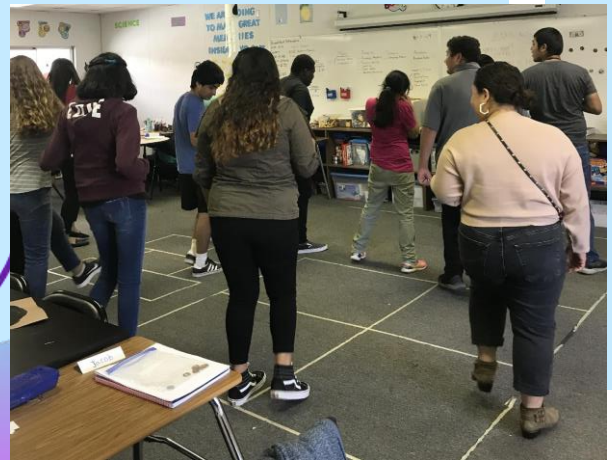
- Digging holes
- Crab/bear walking/races
- Jumping, hopping, skipping
- Climbing/hanging body
- Chair/wall/floor push-ups
- Kneading dough
- Pulling out objects embedded in dough
- Stirring bowl of thick batter
- Pushing down hole punchers, staplers
- Woodworking projects (hammer/nails)
- Elastic band, exercise putty

- Squeeze toys
- Shucking corn
- Carrying heavy objects
- Pushing/pulling games
- Tug-of-war
- Chewy and crunchy foods
- Helping to move furniture
- Using tweezers, clothes pins
- Flying a kite
- Pillow fights

Sensory Rich Activities:

Vestibular

- Swinging
- Jumping, rowing, biking, batting
- Jumping on trampoline
- Swinging
- Rolling in a barrel
- Playing games sitting on a ball
- Riding a bike/trike
- Dancing



Tactile

- **Roll body in a blanket** (modulation)
- **Being a 'sandwich' by being the mean between bread (pillows)**
- **Playing in sand/kinetic sand**
- **Finding objects in a bin of beans**
- **Fingerpainting**
- **Finding objects without looking** (discrimination)
- **Finding stickers on body game**
- **Dress up**

Heller (2002). *Too loud, too bright, too fast, too tight.* New York: Harper

Sensory Extracurricular Activities

- Horseback riding
- Gymnastics
- Water Activities

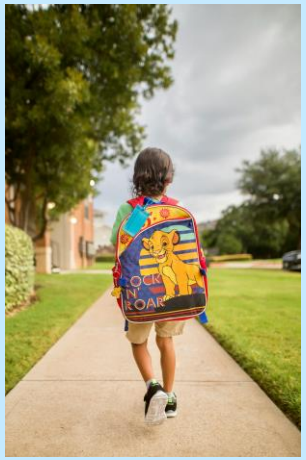
(Competitive swimming)

- Hiking
- Rock Climbing
- Yoga
- Dance
- Tai Chi, Qigong
- Breathing exercises

Page 179

"Convenient" Strategies

- Park farther away.... So you walk more
- Walk fast
- Replace electric can opener with a manual one
- Rock or roll on therapy ball while watching TV
- Sleep with weighted blanket
- Sit on a movement cushion
- Heavy backpack



Page 189




Recess

Refreshing Recess: Every Moment Counts

Created by Susan Bazyk, PhD, OTR/L (2014, 2021)

Ohio Department of Education

Recess impacts learning and behavior

- Fosters friendships
- Promoting positive behaviors
- Creating inclusion
- Engaging in variety of play activities

Jarrett, O.S., (2019). A research-based case for recess: Position paper.

US Coalition in collaboration with American Association for the Child's

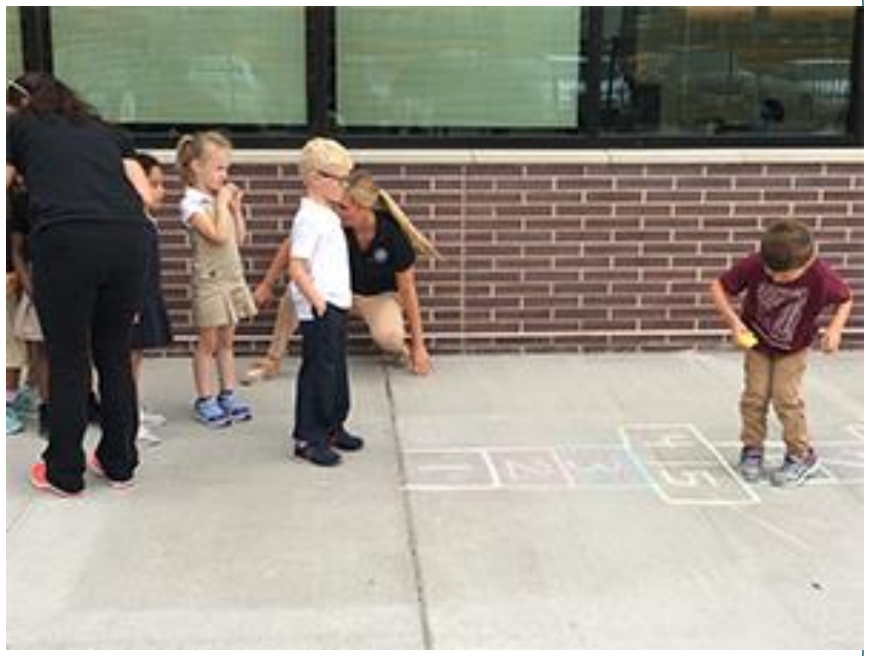
- **American Academy of Pediatrics**: Recess is "a necessary break in a day for optimizing a child's social, emotional, physical, and cognitive development. There is no other time in the school day that has this range of benefits."
- **Brain research on attention** suggests why breaks are needed
  - "The brain cannot maintain attention for long periods of time, requiring contrast (new location, novel stimuli) to regain focus"
  - "For information to be processed, down time is needed to recycle chemicals crucial for long-term memory"
  - "Attention is cyclical, involving 90-110 minute rhythmical patterns throughout the day."

Recess Recommendations

Jarrett, O.S. (2019, 2016)

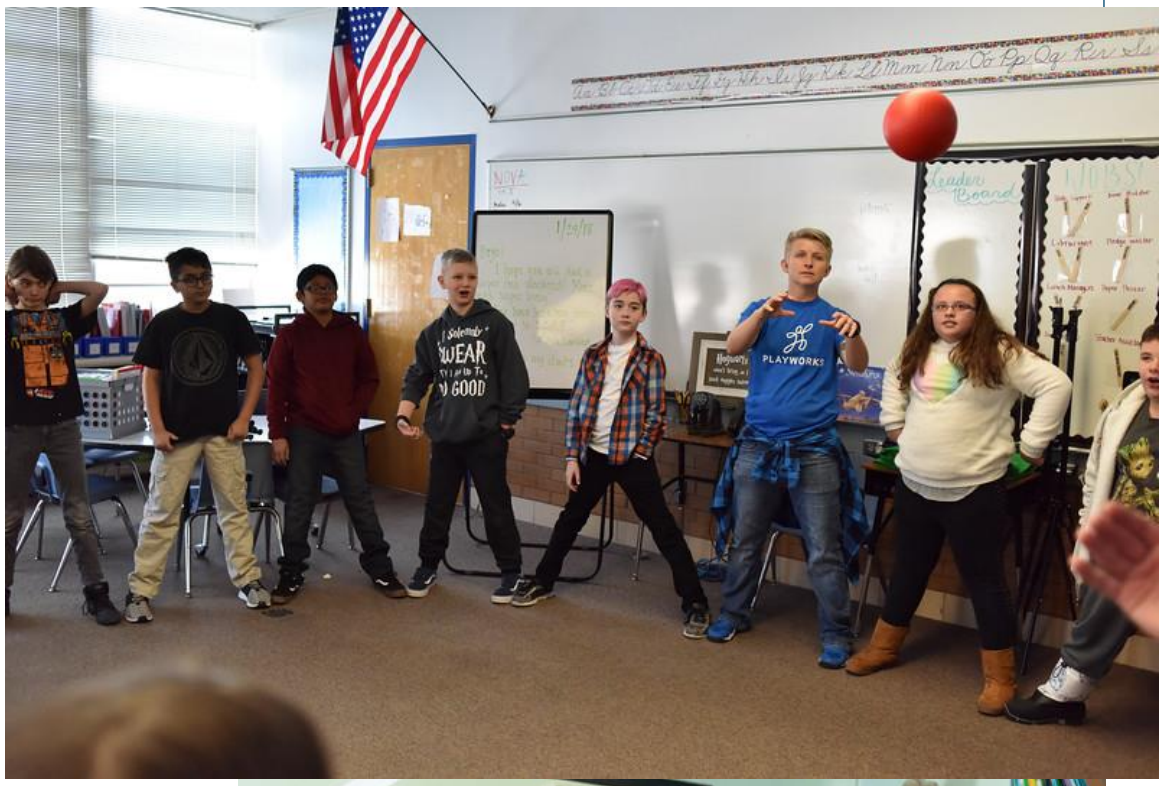
- 20-40 minutes daily. Two or more per day
- Play equipment and materials (balls, jump ropes, hula hoops, recycled materials such as boxes, soda bottles, cardboard tubes) should be available during recess. Choices promote activity and decrease negative behavior
- Children should be able to engage in activities of their own choosing that allow “down time” including vigorous active choices and more sedentary activities
- Adults can teach games, make recess fun (and monitor safety). Children should be shown ways to include others and resolve conflicts
- Ensure all children have recess; do not allow it to be taken away as a consequence.

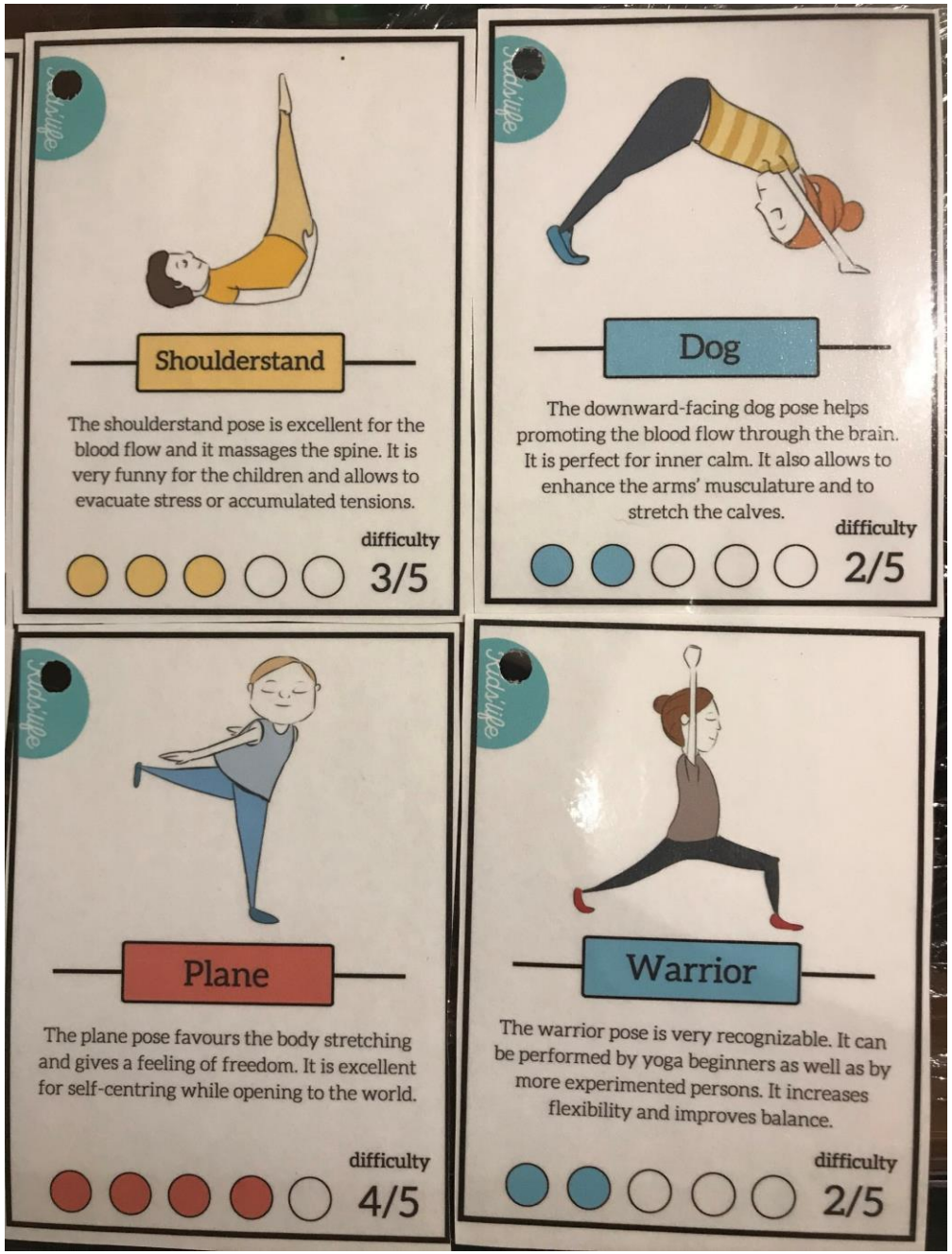

10
20
30
50

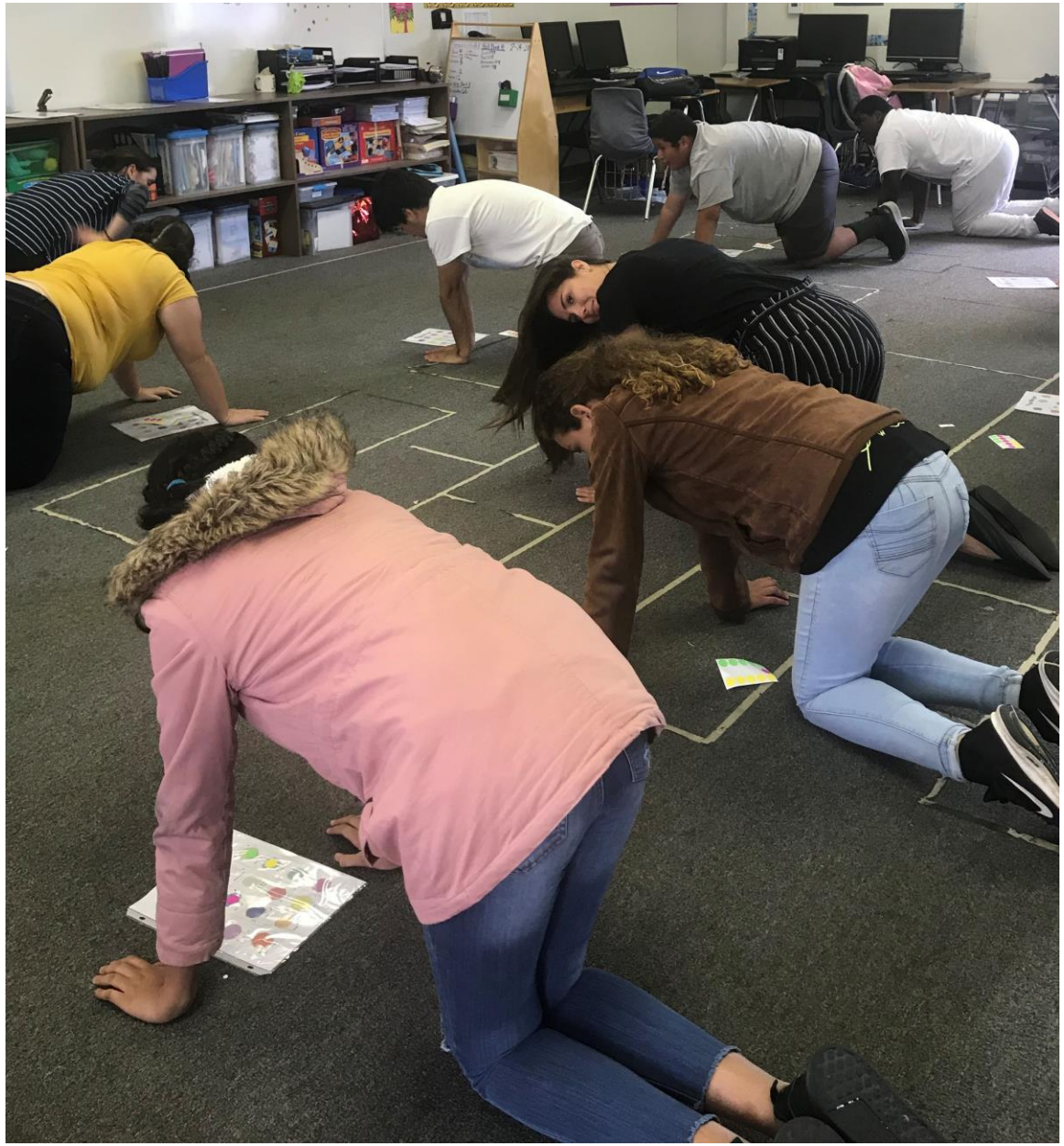



Be Safe


THE FRIDGE




Shoulderstand
The shoulderstand pose is excellent for the blood flow and it massages the spine. It is very funny for the children and allows to evacuate stress or accumulated tensions.
difficulty
3/5
Dog
The downward-facing dog pose helps promoting the blood flow through the brain. It is perfect for inner calm. It also allows to enhance the arms' musculature and to stretch the calves.
difficulty
2/5
Plane
The plane pose favours the body stretching and gives a feeling of freedom. It is excellent for self-centring while opening to the world.
difficulty
4/5
Warrior
The warrior pose is very recognizable. It can be performed by yoga beginners as well as by more experimented persons. It increases flexibility and improves balance.
difficulty
2/5



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Thank You