Monarch Center for Autism
A Division of Bellefaire JCB

AUTISM AND SELF-REGULATION: FACILITATING PARTICIPATION AT SCHOOL AND IN THE COMMUNITY

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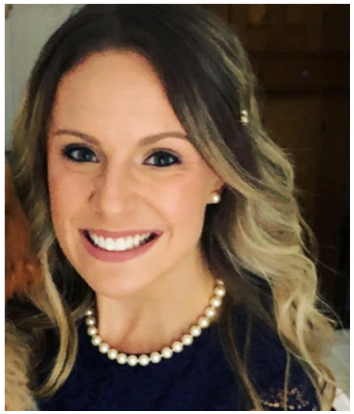
Where We're From

- We currently have 161 students from 9 states and over 65 districts
- We employ over 170 staff members
  - Speech Language Pathologists
  - Intervention Specialists
  - Behavior Specialists
  - Occupational Therapists
  - Occupational Therapy Assistants
  - Associate Teaching Staff
  - Music Therapist
  - Art Therapists
  - Transitional Support Staff

Who We Are

- Anna Greenspan, OTR/L
- Alexandra Schriefer, OTR/L
- Sarah Dean, OTR/L


Our Goal

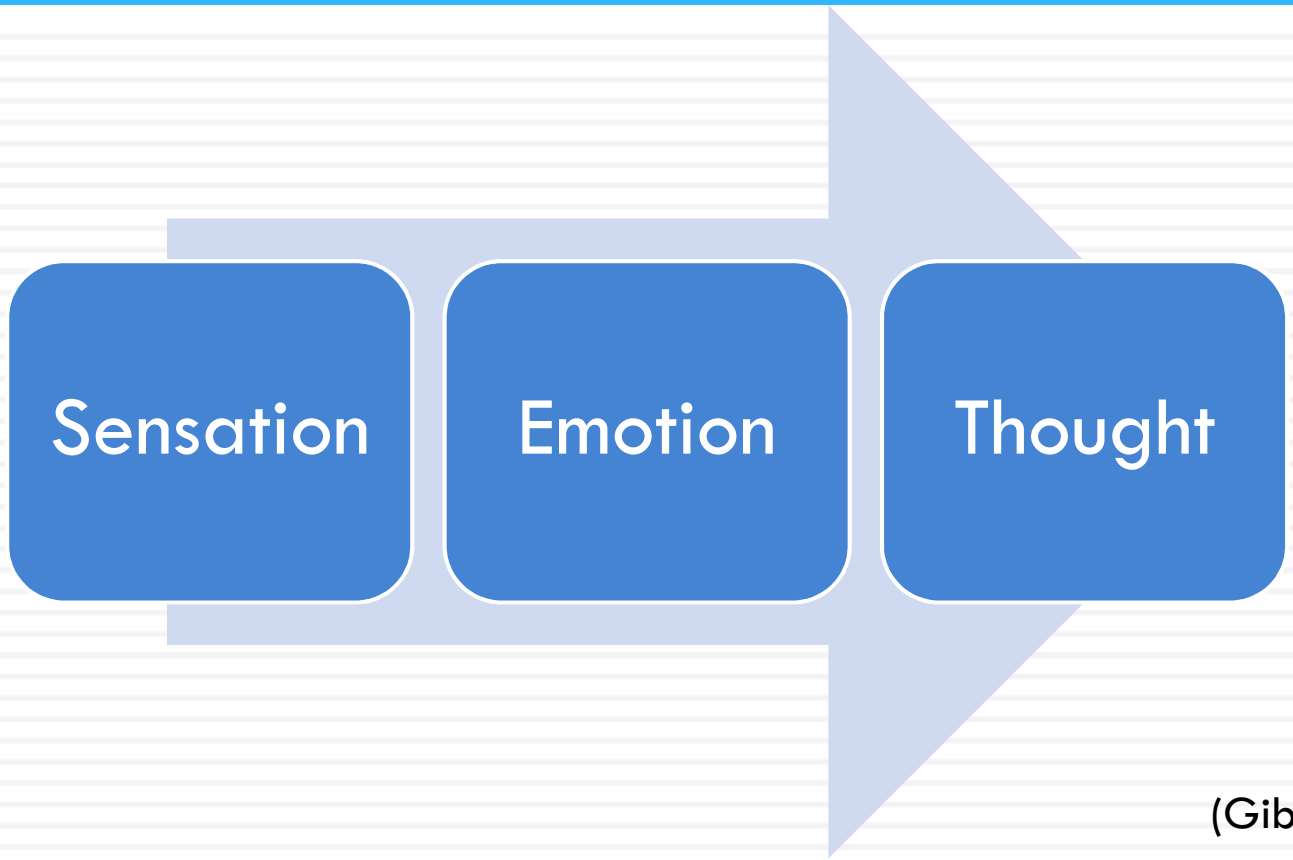
The goal of our presentation is to increase your knowledge of the developmental continuum as it relates to self-regulation, through sensory processing, emotional regulation and executive functioning skills.

Objectives

The presentation will include information regarding:

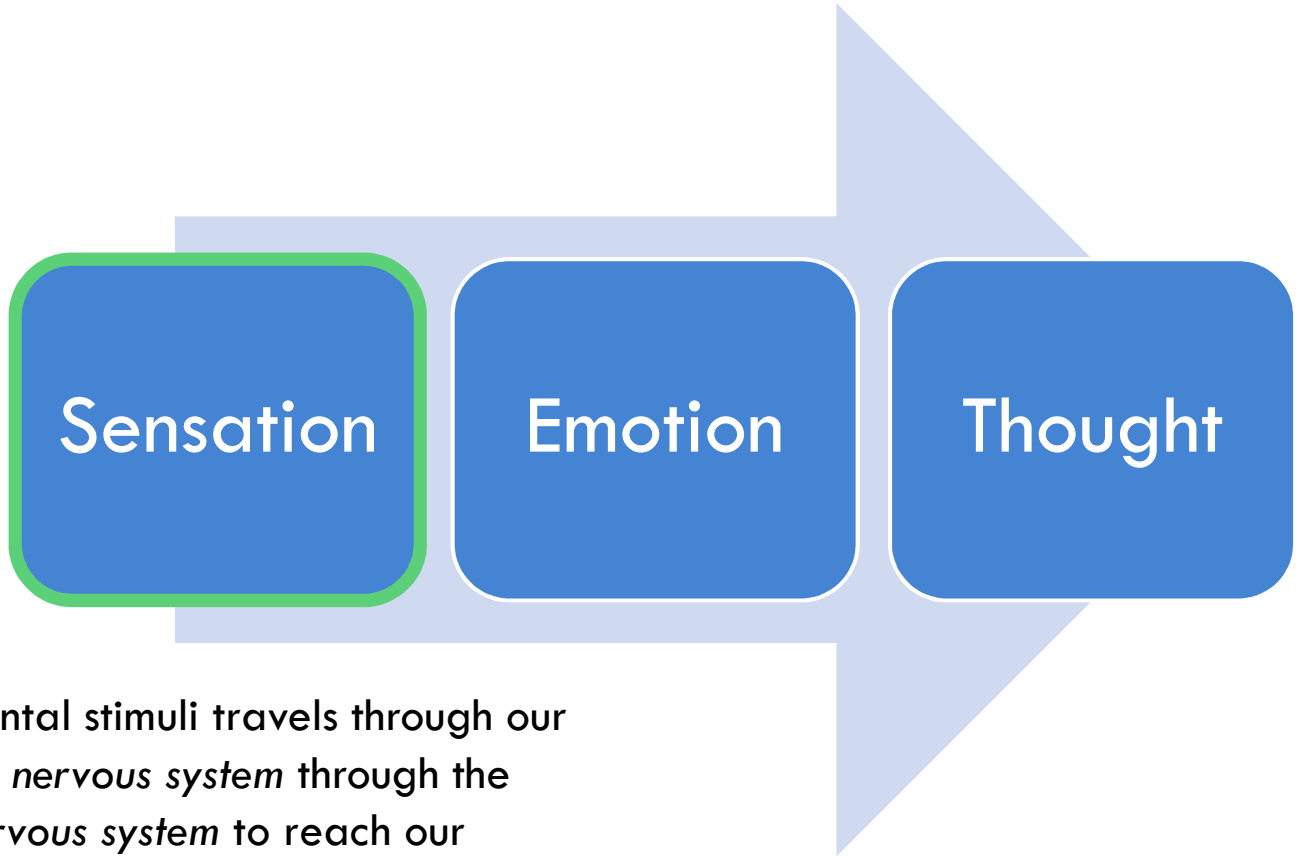
- The science behind the development of self-regulation
- Clinical tools used to measure sensory processing, emotional regulation and executive functioning skills
- Implementation of programming and supports to effectively build skills to support children with autism in managing their feelings, emotions and thoughts to foster participation in their learning and working environments

The Self-Regulation Continuum



(Gibbs, 2017)

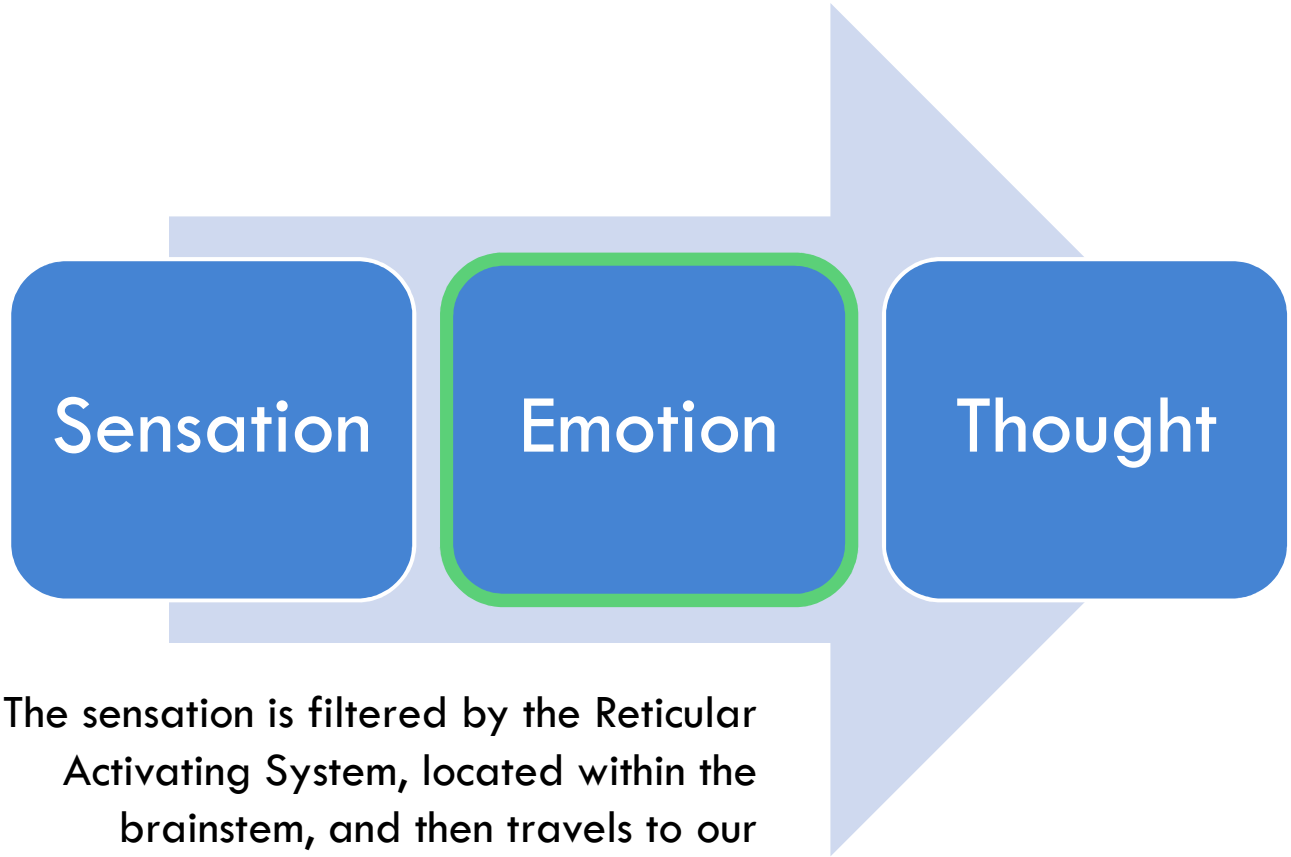
The Science Behind Self-Regulation



Environmental stimuli travels through our *peripheral nervous system* through the *central nervous system* to reach our brain.

(Gibbs, 2017)

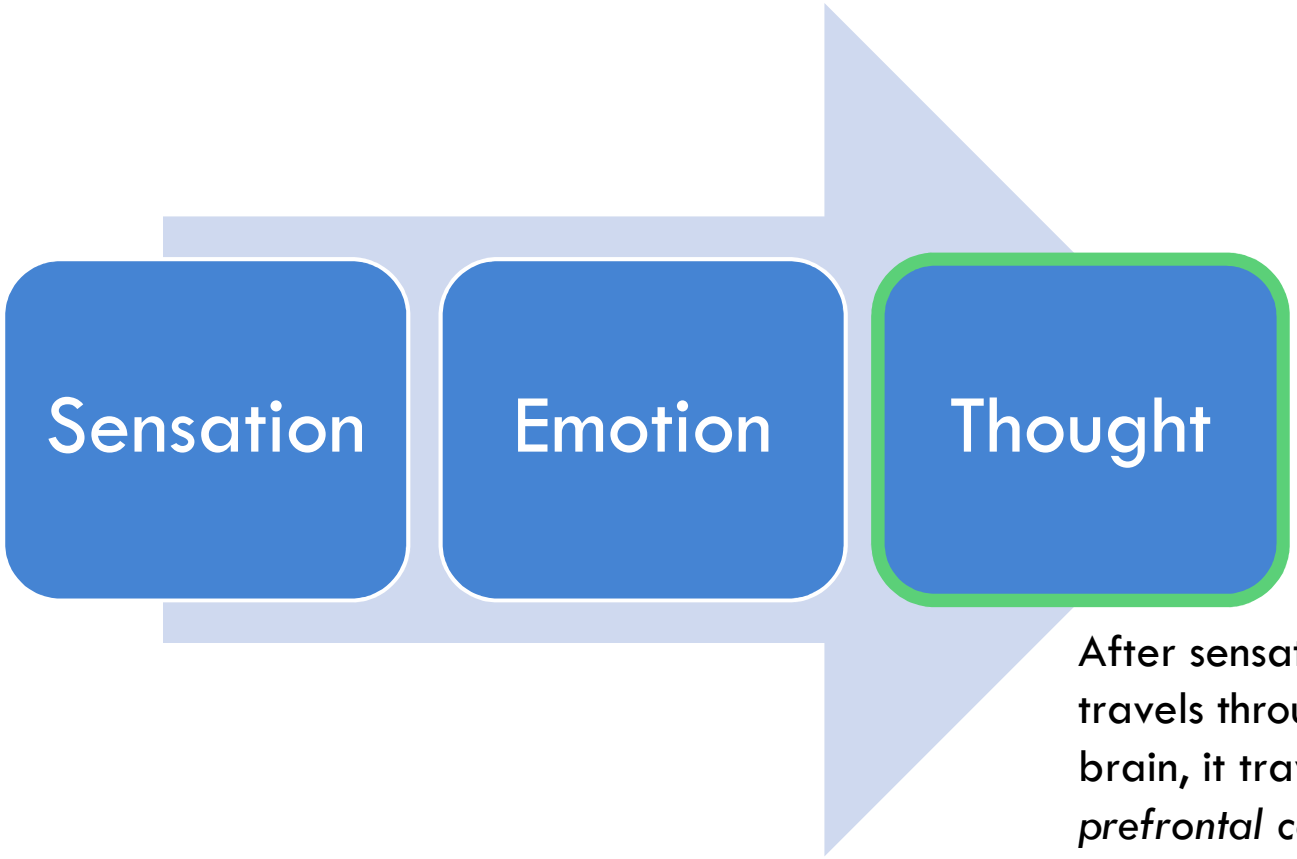
The Science Behind Self-Regulation



The sensation is filtered by the Reticular Activating System, located within the brainstem, and then travels to our *emotional brain area*. The emotional brain area is our *limbic system*.

(Gibbs, 2017)

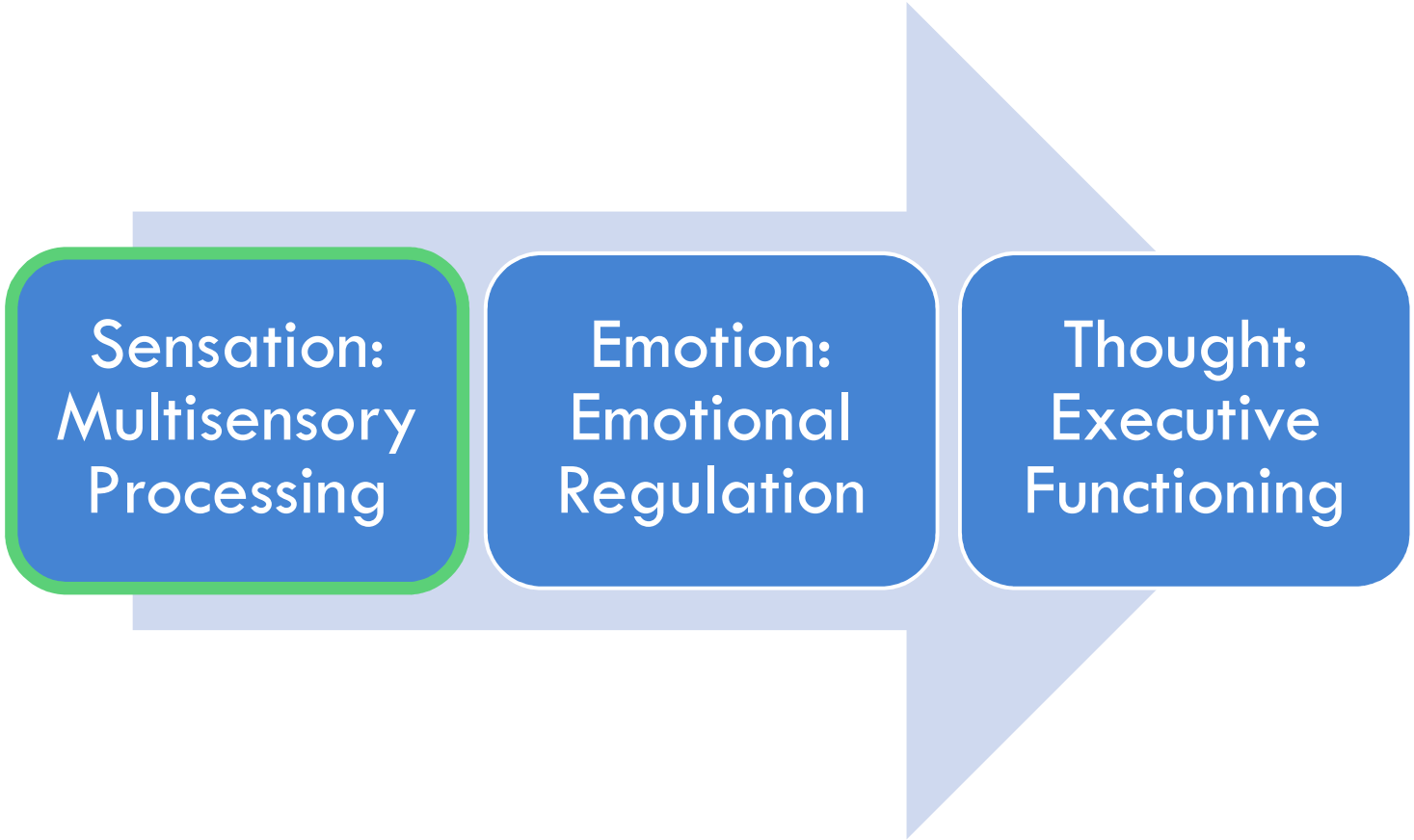
The Science Behind Self-Regulation



After sensation information travels through the emotional brain, it travels to our *prefrontal cortex* which is located within the *frontal lobe* of the brain.

(Gibbs, 2017)

Developmental Overview: Multisensory Integration



Developmental Overview: Multisensory Integration

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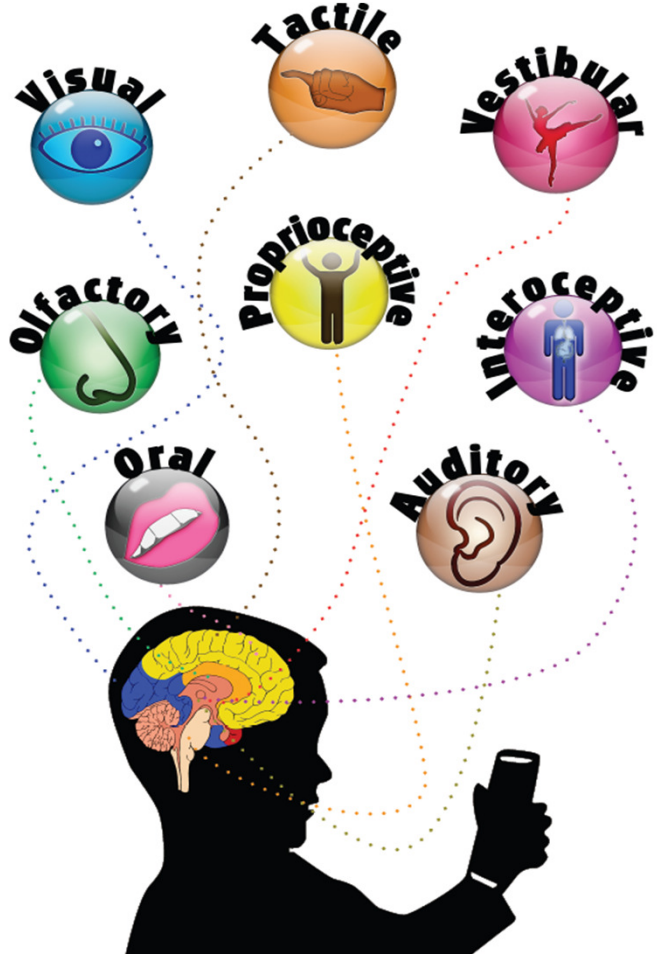
- Sensory Systems
  - Far Senses
    - Auditory
    - Visual
    - Olfactory
    - Gustatory
    - Tactile
  - Near Senses
    - Proprioceptive
    - Vestibular
    - Interoceptive
    - Praxis



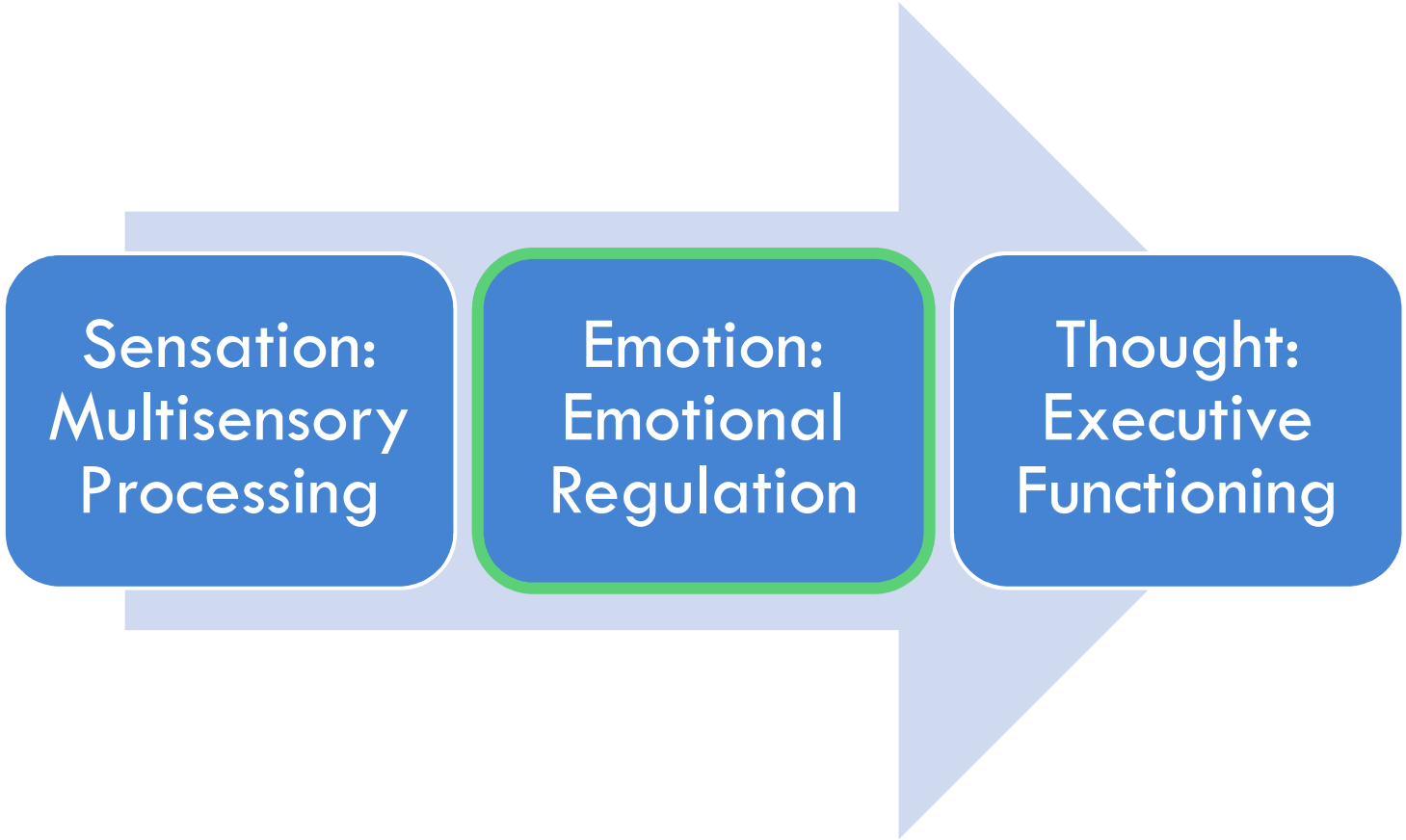
(Gibbs, V. D., 2017)
(Price, C. J., & Hooven, C., 2018)
(Sensory Processing Disorder, 2020)

Developmental Overview: Multisensory Integration

- Importance of sensory system synchrony for purposeful function
- Under-stimulation/over-stimulation lead to decreased engagement
- "Just right" input needed to maximize participation in daily life
- Research emphasizes the use of multisensory integration

(Tomchek, S. D., & Koenig, K. P., 2016)
(Gibbs, V. D., 2017)

Developmental Overview: Emotional Regulation

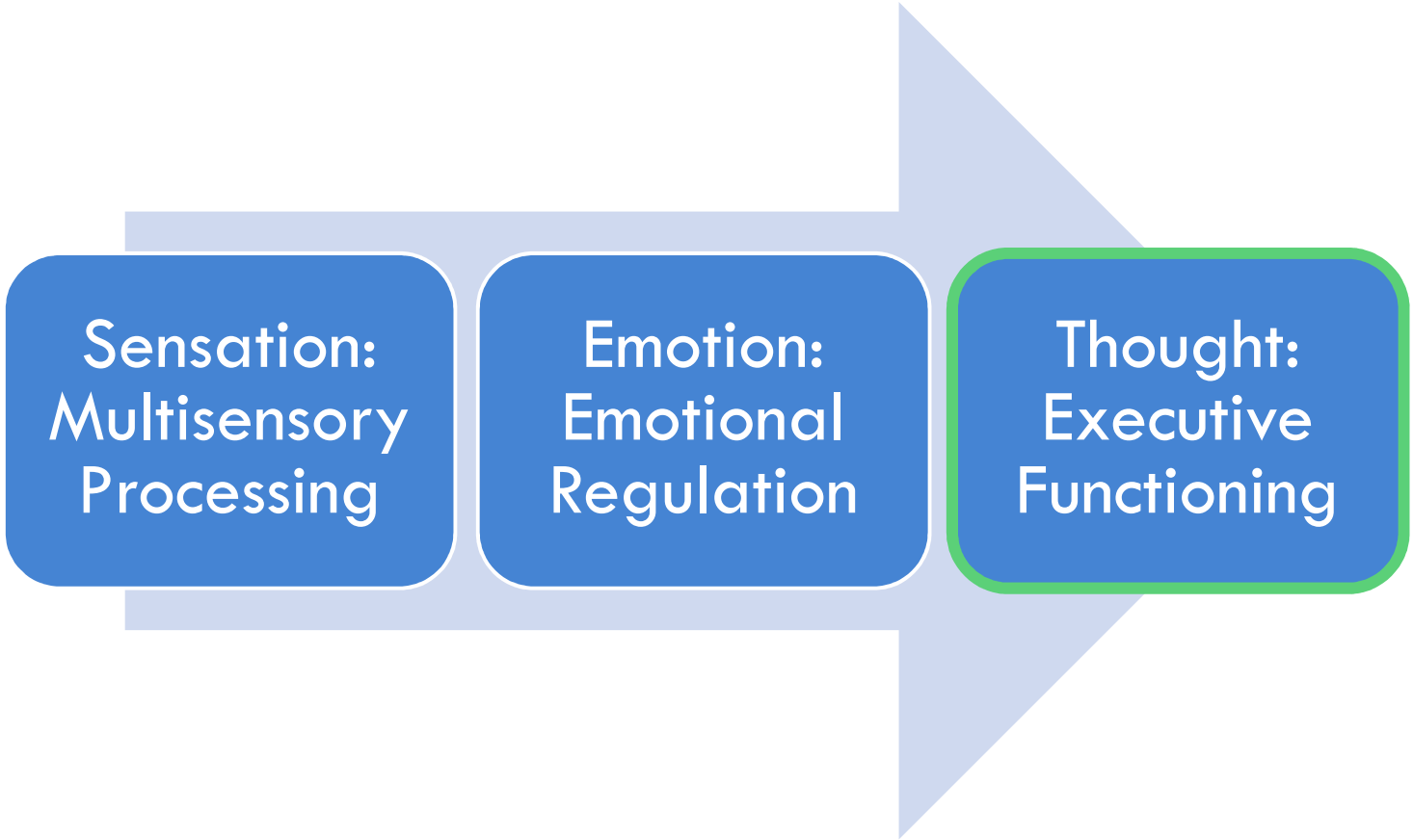


Developmental Overview: Emotional Regulation: Building Blocks

- Science and Emotion
- Developmental age progression for skills that are essential for emotional regulation
- The importance of the involvement of the co-regulator

(Gibbs, 2017)
(Social-Emotional Development , 2020)

Developmental Overview: Executive Functioning



Developmental Overview: Executive Functioning

- Located in the prefrontal cortex within the frontal lobe of the brain
- Our conscious response to sensory and emotional experiences
- Comprised of several skills including:
  - *Flexibility* in thinking
  - Making *decisions*
  - Using *judgement*
  - *Inhibiting* unwanted or negative actions
  - *Problem-solving*
  - *Planning*
  - Making sense of *emotions*

(Gibbs, 2017)
(Obermeyer, 2018)

The Evaluation Process

Clinical tools used to measure sensory processing, emotional regulation and executive functioning skills

Sensory Processing Assessments

- Standardized assessments
  - Sensory Profile 2
  - Sensory Processing Measure
- Clinical observations in the classroom and community
- Interviews with parents and the interdisciplinary team
- Individualized data collection

(Dunn, W.,2014)

Emotional Regulation Assessments

Self-Regulation Identification and Teaching Program

- The purpose of this program is to identify self-regulation abilities as it relates to development, identify the involvement of the co-regulator and provide teaching tools for the purpose of advancing the student through the self-regulation continuum.

Process:

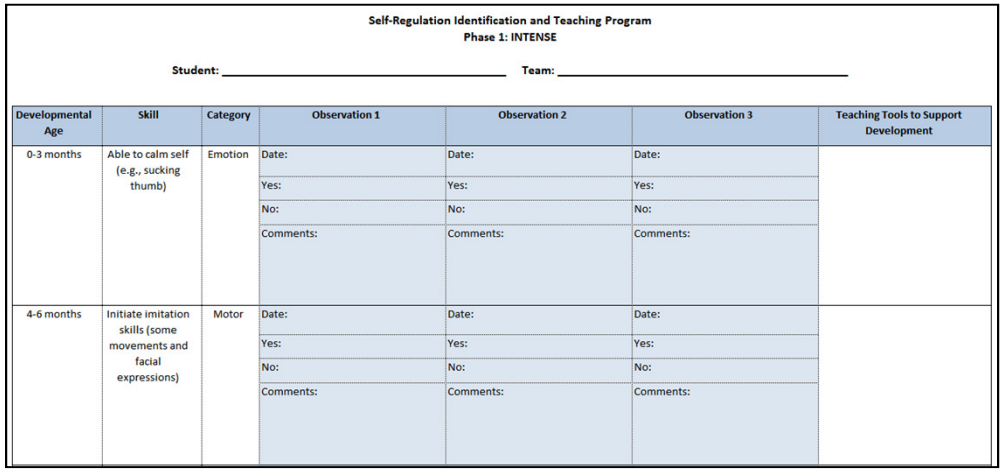
- The Self-regulation Identification and Teaching observation form is completed by the interdisciplinary team. The observational information completed by the interdisciplinary team provides the explanation of the child's necessary skills and involvement of the co-regulator. Additionally, it provides the interdisciplinary team with the teaching tools for the identification of the areas of needs. The teaching program is practiced for a minimum period of 3 months before the observational data is reevaluated and recorded again.

(Social-Emotional Development, 2020)
(California Department of Education, 2019)

Self-Regulation Identification and Teaching Program cont.

The information that is collected gives the interdisciplinary team the information about the following:

- Self-Regulation skills observed as it relates to the developmental age
- Skill category
- The involvement of the co-regulator
- The teaching tools to advance the student through the developmental phases



Self-Regulation Identification and Teaching Program
Phase 1: INTENSE

Student: _____ **Team:** _____

Developmental Age	Skill	Category	Observation 1	Observation 2	Observation 3	Teaching Tools to Support Development
0-3 months	Able to calm self (e.g., sucking thumb)	Emotion	Date: Yes: No: Comments:	Date: Yes: No: Comments:	Date: Yes: No: Comments:	
4-6 months	Initiate imitation skills (some movements and facial expressions)	Motor	Date: Yes: No: Comments:	Date: Yes: No: Comments:	Date: Yes: No: Comments:	

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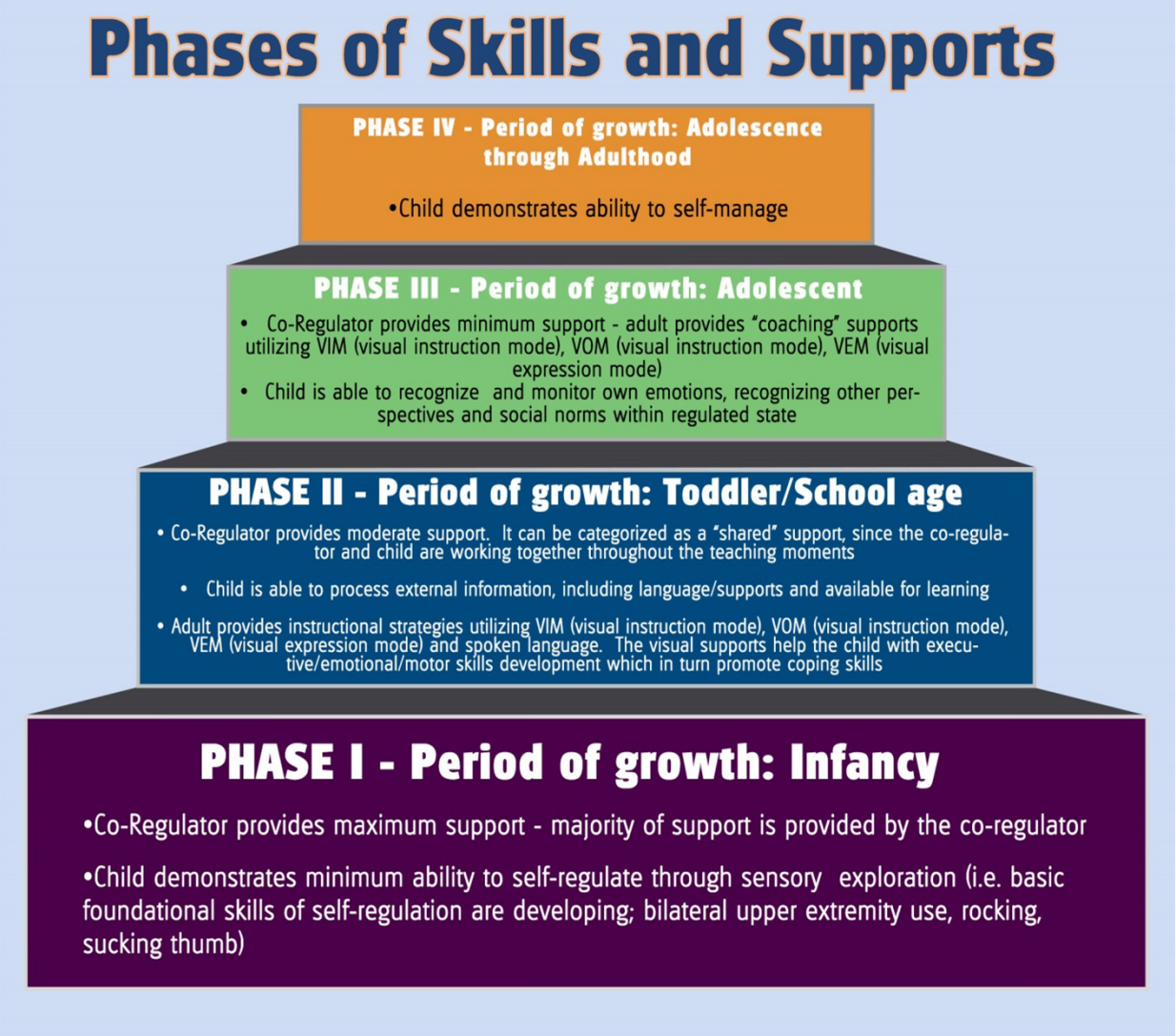
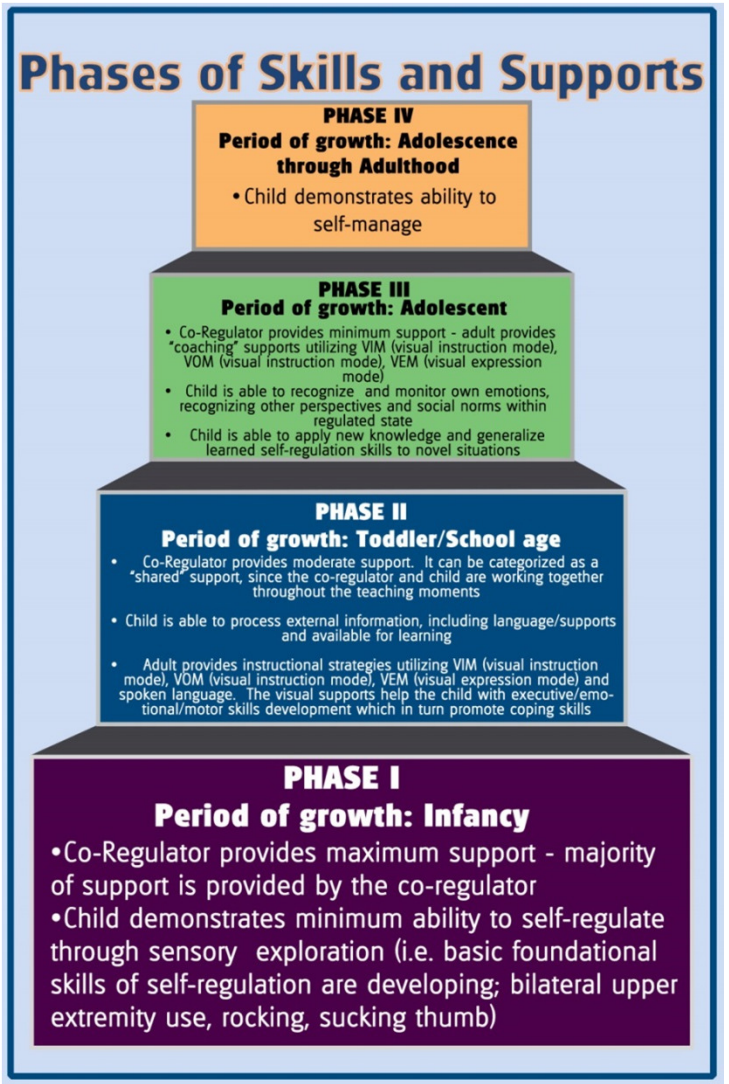
Phases of Co-regulator Involvement



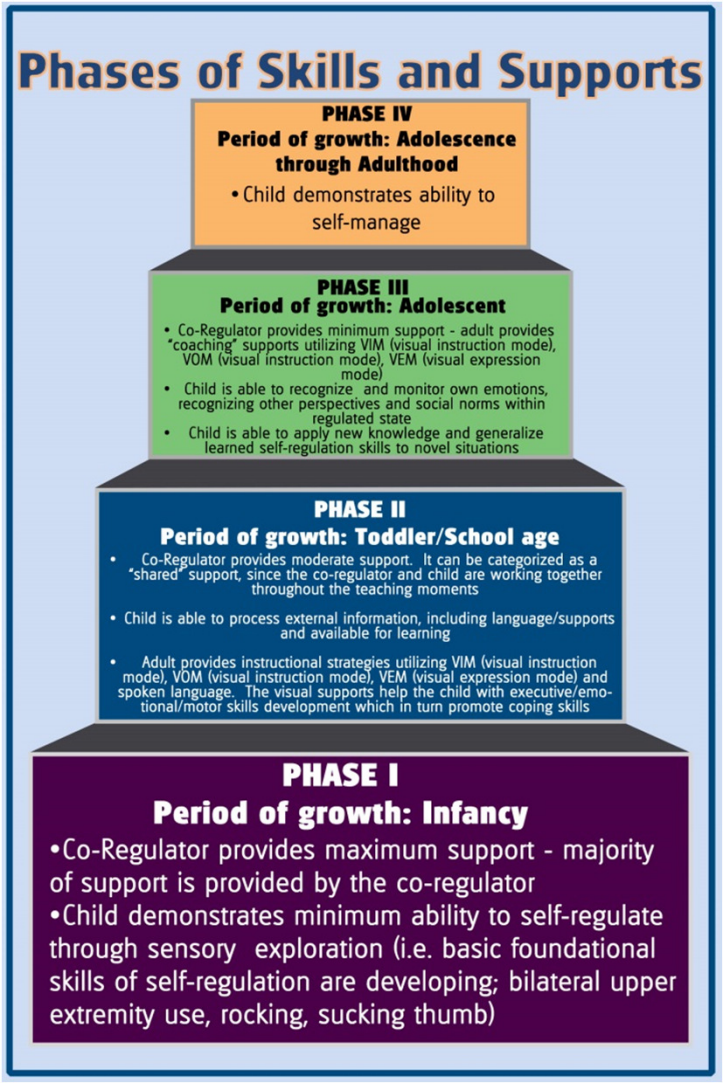
PHASE I

- Period of Growth : **Infancy**
- Co-Regulator provides maximum support
- Child initiates learning with sensory exploration
- The categories of skills are observed: emotions, motor, executive



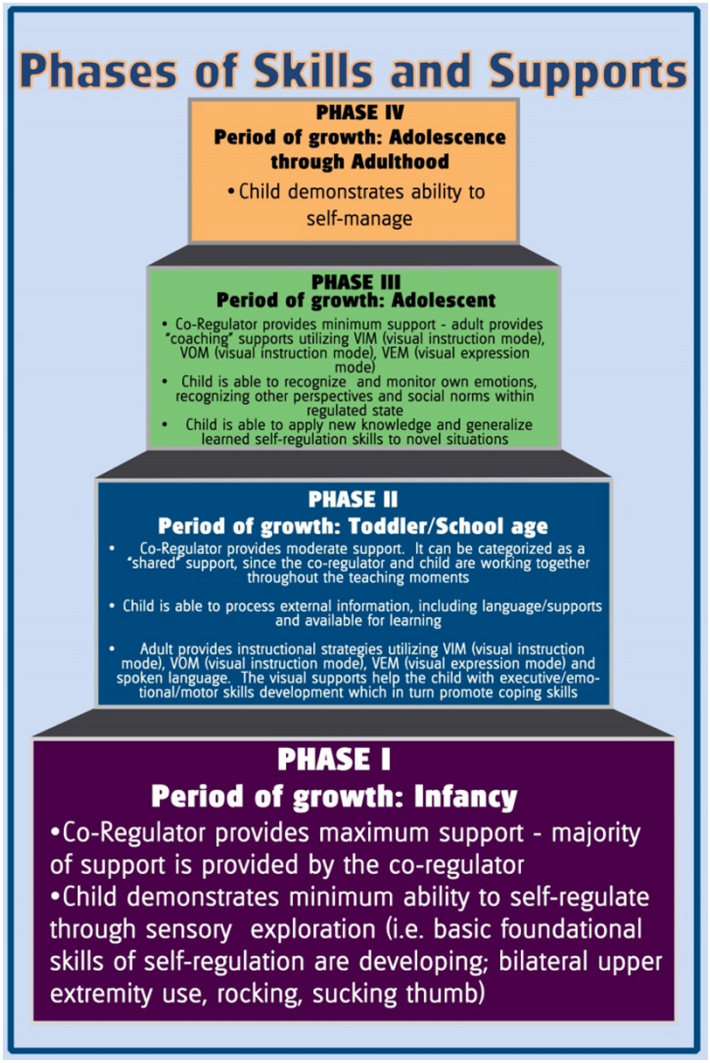
PHASE II

- Period of Growth: **Toddler/School age**
- Co-Regulator provides moderate support/ "coaching" support
- Child is able to learn with visual instructions, including modeling
- The categories of skills are observed: emotions, motor, executive



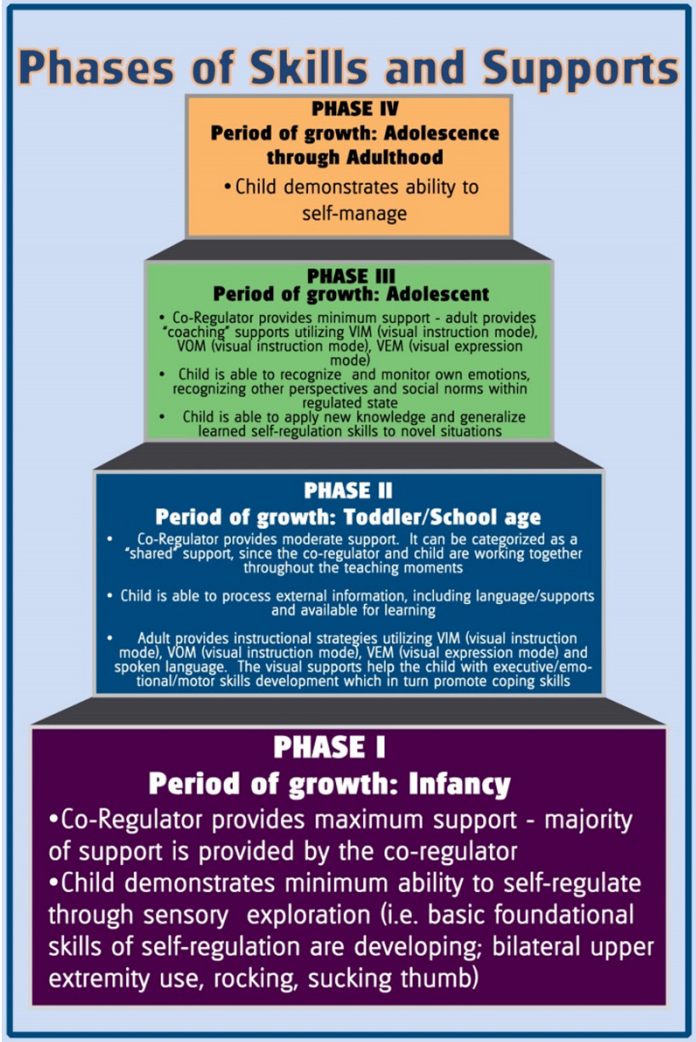
PHASE III

- Period of Growth: **Adolescent**
- Co-Regulator provides minimum support/ "shared" support
- Child is able recognize and monitor own emotions
- Child is able to apply and generalize learned self-regulation skills to novel situations
- The categories of skills are observed: emotions, motor, executive



PHASE IV

- Period of Growth: **Adolescence through Adulthood**
- Adolescent/Adult are able to self-manage
- Co-Regulator role – friend/partner
- The categories of skills are observed: emotions, motor, executive



Executive Functioning Assessments

- Behavior Rating Inventory of Executive Function, Second Edition (BRIEF-2)
  - Behavior Regulation Index: Inhibit & Self-Monitoring
  - Emotion Regulation Index: Shift & Emotional Control
  - Cognitive Regulation Index: Initiate, Working Memory, Plan/Organize, Task-Monitor &Organization of Materials
- Visual Representation Assessment (VRA)
- Monarch Assessment of Instructional Visual Supports (MAIVS)

(Gioia, Isquith, Guy, & Kenworthy, 2015)

Providing Supports

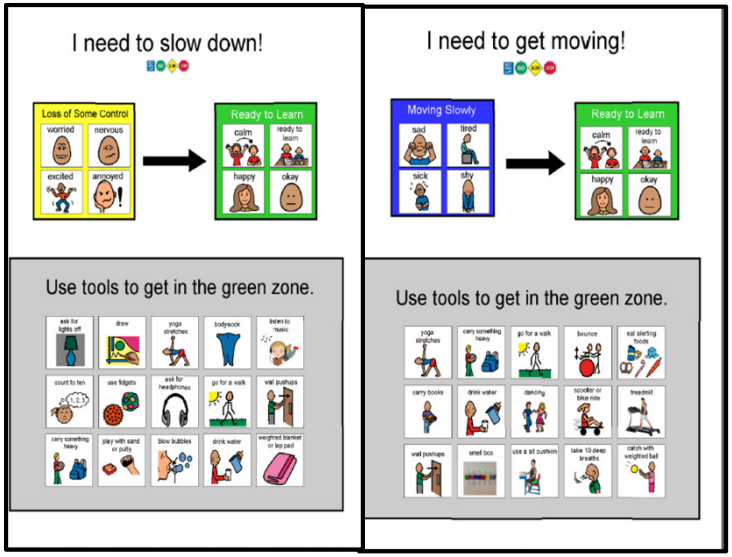
Teaching tools used to facilitate students' engagement and participation in the school and community

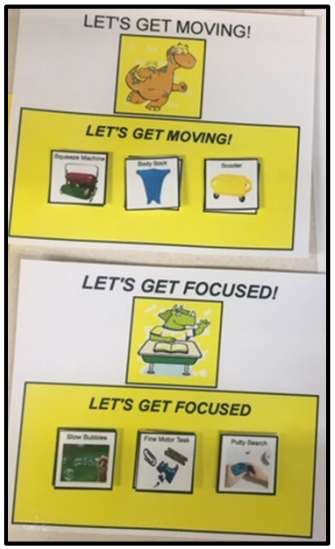
Sensory Processing Supports: Multisensory Programming

- Individualized multisensory programming across the school environment
  - Regulation boards
  - Sensory schedules
  - Multisensory learning materials

Time	Session	Pick 1: Sensory	Pick 1: Positioning/Exercise
8:25	Arrival: Snack/Sensory Speech	Beanbag Squishes OR Wall Push-Ups	SIDE SIT OR TALL KNEEL
9:00	Morning meeting	Body Sock OR Callisthenic Exercises (Jumping Jacks/Squats/Toe Touches)	SUPERMAN OR PLANK
9:30	Goal Work: Gross Motor (T/TH)	Yoga Stretch OR Shaving Cream	SIT UPS OR DONKEY KICKS

Sensory/movement schedule



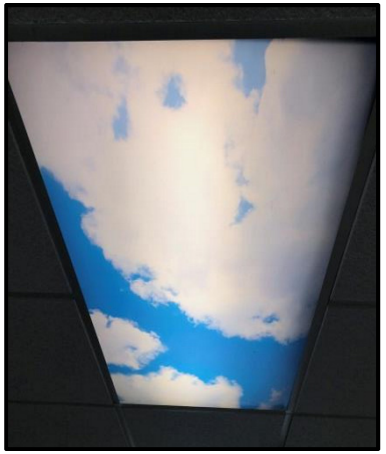


Regulation boards

Multisensory learning methods

Sensory Processing Supports:

Environmental Accommodations/Modifications

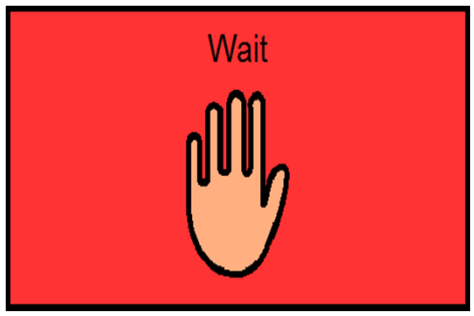


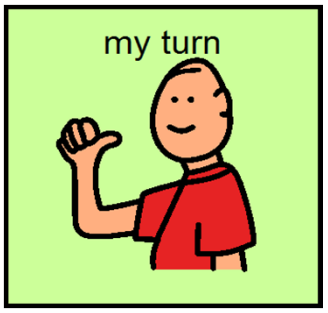
Emotional Regulation Teaching Tools

- Self-Regulation Identification and Teaching Program **Teaching Tools**
- Teaching emotions
  - VIM (Visual Instruction Mode) Examples
    - Instructional Teaching Tool of real picture of the student

Emotional Regulation Teaching Tools continue

- Self-Regulation Identification and Teaching Program **Teaching Tools**
- Teaching executive skills
  - VIM (Visual Instruction Mode) Examples
    - Wait
    - My Turn
    - Help





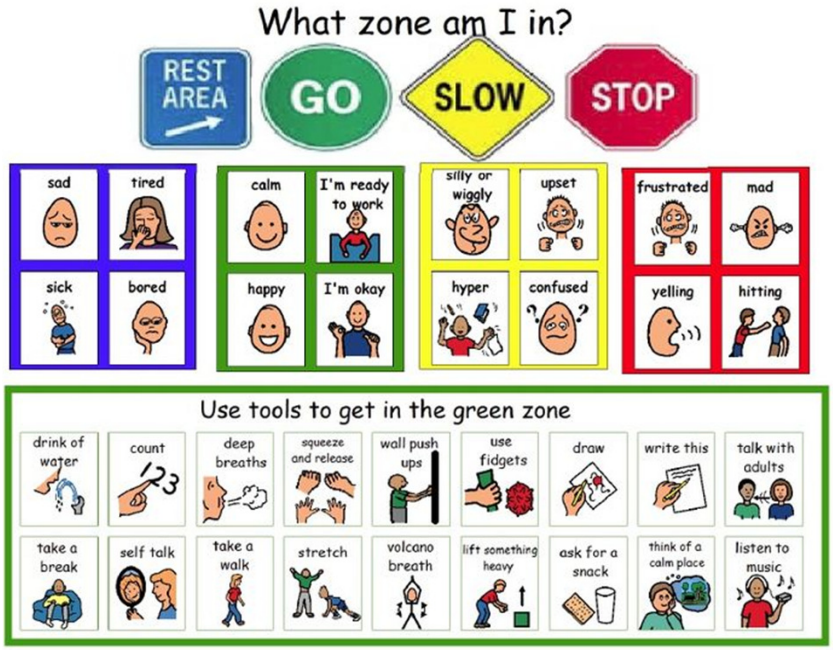
Video

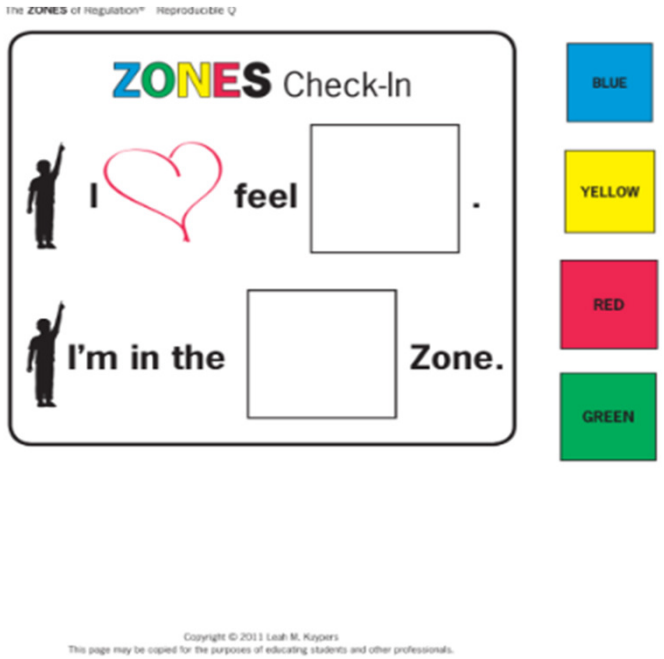
Emotional Regulation Teaching Tools continue

- Self-Regulation Identification and Teaching Program **Teaching Tools**
- Teaching Movement
  - VIM (Visual Instruction Mode) Examples
    - Imitation
    - Following visual/verbal directions

Emotional Regulation Teaching Tools continue

- Zones of Regulation





(Kuypers, L. M., 2011)

Emotional Regulation Teaching Tools continue

Conscious Discipline

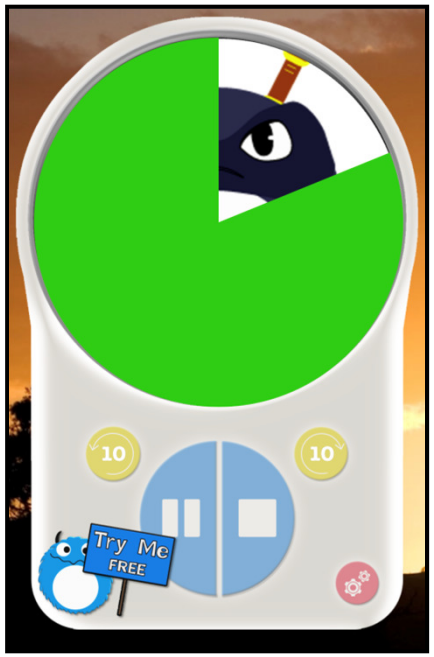
- Conscious discipline integrates social-emotional learning and discipline
- Values connection and relationship with the student
- Your behavior and your reaction is what affects our students and guides their understanding in how to react to the challenges
- ***The student is doing the best they can with the tools they have been given***

(Bailey, B., 2000)

Executive Functioning Supports

- Monarch Model
  - Visual Instruction Mode (VIM)
  - Visual Organization Mode (VOM)
  - Visual Expression Mode (VEM)

Executive Functioning Supports: VOM

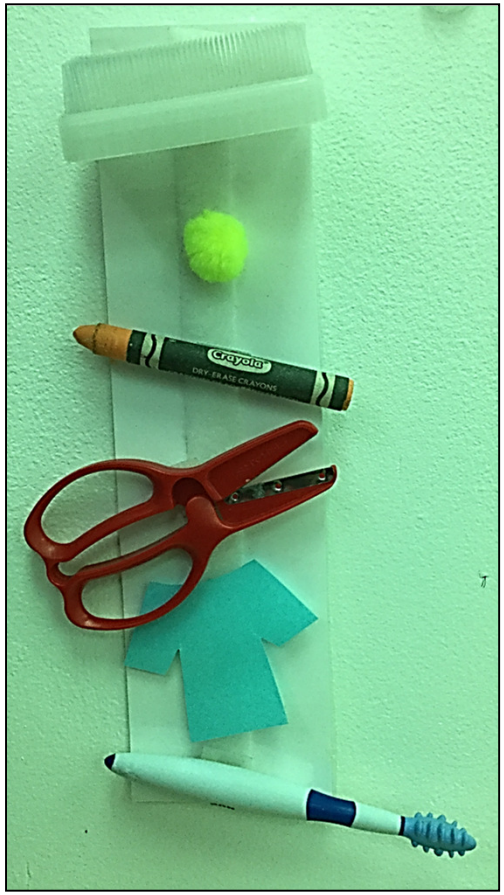


Visuals for Shifting

- Timers
- Transition Cards

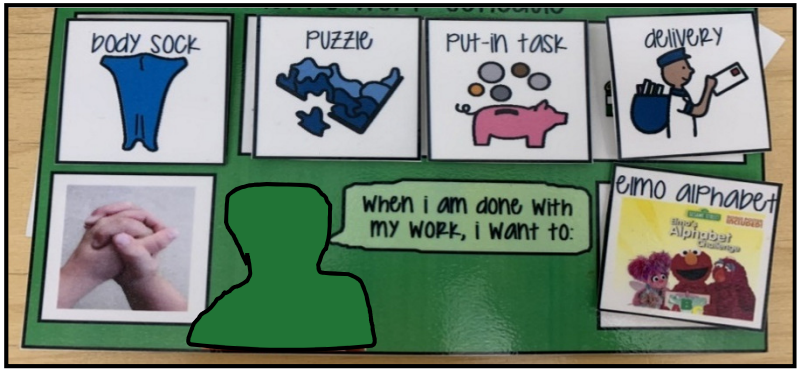
Obermeyer, 2018

Executive Functioning Supports: VOM



Visuals for Planning

- Macro-Schedule
- Micro-Schedule



Obermeyer, 2018

"Children do well if they can…

if they can't, we as adults need to figure out what's getting in the way, so we can help."

-Ross Greene, "The Explosive Child"

(Greene, R. W., 2005)

References

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QUESTIONS?

THANK YOU!

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