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Foundations for School Readiness: Sensory Regulation and Yoga (Day 1)

Britt Collins, M.S., OTR/L



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continued

Purpose and Objectives

- 1) Identify the 6 subtypes of SPD and utilize strategies to support these needs in the children they see.
- 2) Recognize a simple classroom yoga sequence for children of all abilities.
- 3) Describe mindfulness techniques as a practitioner for themselves as well as their students/clients.

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continued

What is SPD

- Sensory Processing Disorder (SPD) is a complex disorder of the brain that affects children and adults. People with SPD misinterpret everyday sensory information, such as touch, sound, and movement. They may feel bombarded by information, they may seek out intense sensory experiences, or they may be unaware of sensations that others feel. They may also have sensory-motor symptoms such as a weak body, clumsiness, awkwardness, or delayed motor skills.

▪ Dr. Lucy Jane Miller 2007

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Seven Fundamental Facts about SPD

- Sensory Processing Disorder is a complex disorder of the brain that affects developing children and adults.
- Parent surveys, clinical assessments, and laboratory protocols exist to identify children with SPD.
- At least 1 in 20 people in the general population are affected by Sensory Processing Disorder.

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continued

SPD Continued

- In children who are gifted and those with ADHD, Autism, and fragile X syndrome, the prevalence of SPD is much higher than in the general population.
- Studies have found a significant difference between the physiology of children with SPD and children who are typically developing.

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continued

SPD Continued

- Studies have found a significant difference between the physiology of children with SPD and children with ADHD
- Sensory Processing Disorder has unique sensory symptoms that are not explained by other known disorders.

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continued

8 Sensory Systems

- The 5 Senses we all learned about as a child
- Taste – oral motor
- Touch- tactile processing
- Sight – visual motor/perceptual
- Sound- auditory processing
- Smell – olfactory



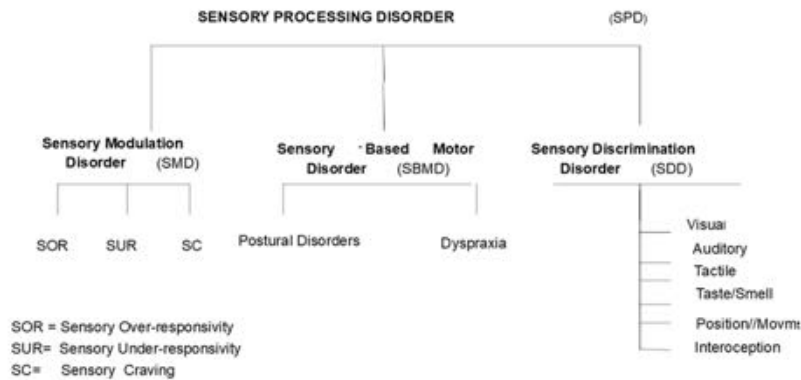
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3 Hidden Senses

- Vestibular – governs balance, where your head is in space, how fast you are moving
- Proprioception- input to the muscles and joints that tells us where our bodies are in space
- Interoception- sense of internal organs

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SPD Subtypes



L.J. Miller 2007

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Sensory Over-Responsive

- SOR- these kids have responses that are too quick, too big, or last too long than typical kids
- It is hypothesized that their threshold is too low and the therapist is working to raise that threshold.
- Examples:
 - Clinging to you when you try to toss your child into the air
 - Tactile defensive to barefoot in grass or touching sticky and gooey
 - She covers her ears when something seems too loud

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Sensory Under-Responsive

- SUR: this kid feels things too late and too little. He is low and slow almost lethargic.
- It is hypothesized that these kids have a high threshold and therapists want to lower this.
- Examples:
 - He doesn't hear his name being called.
 - She falls down and doesn't cry or notice she hurt herself
 - Hard to motivate to move
 - Your child may not be able to tell whether the water is too hot or too cold.

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Sensory Cravers

- SC –Even if a child seems to be seeking deep pressure or input, we don't want to give them too much as this will disorganize them.
- Examples:
 - Always on the go, constantly moving
 - Crashing, giving hard high fives
 - Spins a lot, jumps a lot
 - Over stuffs their mouth with food

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continued

- For this category of SMD – if a child is constantly wanting to spin, you don't just let her spin and spin. She will eventually habituate to the input and will never quite “fill the sensory system up.”
- What you want to do as a therapist is spin the child one direction, pick up the ball, spin the other way and throw to a target
- You want to give them some input, but interrupt it with a functional task.
- Also if they are seeking out vestibular, give them auditory or proprioceptive instead. If they are seeking out auditory, you aren't going to blast their music even louder, you would give them tactile input or proprioceptive input paired with a functional task

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continued

What is Organizing

- All of us regulate our nervous system every day
- How do we help our child regulate themselves?
- Movement paired with Heavy Work



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continued

continued

SBMD: Sensory Based Motor Disorders

- Dyspraxia – difficulties with ideation, sequencing, motor planning and/or execution
- Postural Disorder – difficulties with overall tone, trunk strength

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continued

Dyspraxia/Motor Planning

- Individuals with Dyspraxia have trouble processing sensory information properly, resulting in problems planning and carrying out new motor actions.
- These individuals are clumsy, awkward, and accident prone. They may break toys, have poor skill in ball activities or other sports, or have trouble with fine motor activities.
- They may prefer sedentary activities or try to hide their motor planning problem with verbalization or with fantasy play.

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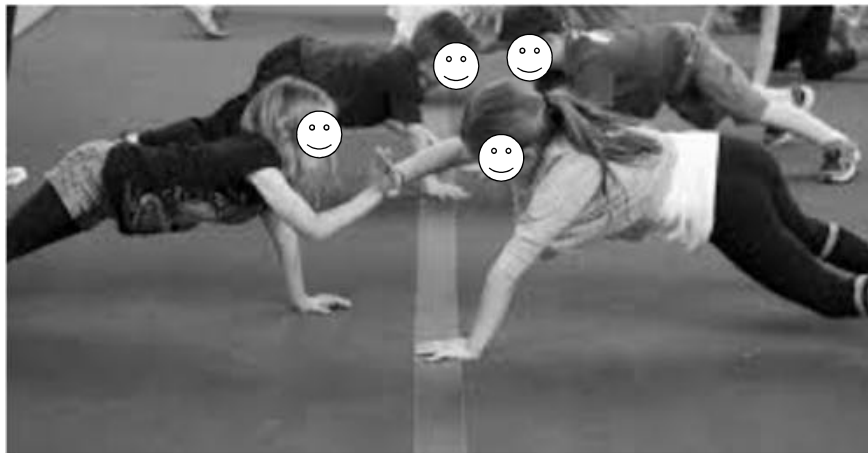
Motor Planning/Praxis

Praxis is the ability to self-organize

- Starting with an idea (ideation)
- Sequencing how to carry out the idea (organization)
- Making your body complete the activity (execution)
- Examples:
 - Crawling across the room
 - Making a craft project (cutting, writing, etc.)
 - Getting dressed

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Motor Planning Activity



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continued

Postural Control

- Individuals with postural disorder have difficulty stabilizing his/her body during movement or at rest in order to meet the demands of the environment or of a motor task, e.g. poor “core strength.”
- When postural control is good, the person can reach, push, pull, etc. and has good resistance against force.
- Individuals with poor postural control often do not have the body control to maintain a good standing or sitting position, especially when attempting functional tasks.

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Finding the Just Right Challenge

Zones of Regulation designed by Leah Kuypers, M. A. Ed., OTR/L - part of Social Thinking- Michelle Garcia Winner's program

- www.socialthinking.com www.zonesofregulation.com
 - Too Slow- blue
 - Just Right- green
 - **Fun Fast- yellow**
 - Too Fast- red

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continued

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- The Blue Zone: sad, tired, depressed, sick
- Where/when is it okay for us to be in the Blue Zone?

- The Green Zone: happy, calm, focused, Ready to Learn
- Where/when is it okay for us to be in the Green Zone?

- **The Yellow Zone:** excited, silly/wiggly, frustrated, worried, trouble with focus
- Where/when is it okay for us to be in the **The Yellow Zone?**

- The Red Zone: mad, angry, terrified, yelling/hitting, out of control
- Where/when is it okay for us to be in the The Red Zone?

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continued

- How do we react to a certain problem? How do we tie in regulation for our students in the classroom?

- Children have to learn that it is okay to react to a situation, but breaking their pencil is small problem and should not send them into the Red Zone. Their friend pushing them down on the playground may send them into the Red Zone but how they deal with that anger and being upset is a choice they have to make in the moment (learning to not hit back or worse)

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continued

How to Regulate a Child

- Watch their facial expressions and body language
- Watch that you are not overwhelming them to the point of shut down
- Pay attention to their arousal level so they don't get too wound up and you can't bring them back down
- If they are melting down, help calm them using whatever strategies seem to work for that specific child

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Difficult Transitions

- Many children with ASD and/or SPD struggle with transitions
- Use of a Transitional Object
- Social Stories
- Use of Visuals
- Practice
- Be prepared to stop what you are doing and just help calm the child. Be on their agenda not yours.

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Calming Strategies

- Taking Deep Breaths
- 5 Mindful breaths (see upcoming slides)
- Drinking through a straw
- Sucking on hard candy
- Slow linear swinging/rocking
- Chewing gum
- Deep pressure/hugs/weighted vests, blankets
- Taking a break
- Lowering the lights
- Calming music
- Warm bath
- Talking in soft voice

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continued

Signs of SPD in School-age Children

- Difficulty dressing, eating, sleeping, and/or toilet training
- Clumsy; poor motor skills; weak
- In constant motion; in everyone else's face and space
- Frequent or long temper tantrums
- Over-sensitive to touch, noise, smells, other people
- Easily distracted, fidgety, craves movement; aggressive
- Easily overwhelmed
- Difficulty with handwriting or motor activities
- Difficulty making friends
- Unaware of pain and/or other people

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continued

How to Help Kids in the Classroom

- Movement is very important
- We need movement in order to learn
- Incorporate movement into your every day lessons
- Don't take away recess please!!!
- Give a different consequence

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Importance of Recess



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continued

- Children (especially with ASD/SPD) need recess to help organize their bodies
- Recovery Time- they need to go somewhere to calm their bodies down
- Give them a break to avoid meltdown
- Utilize praise when things are going well
- Positive reinforcement
- Have them wipe down boards or tables, rearrange furniture because this gives them additional sensory input but also is a consequence

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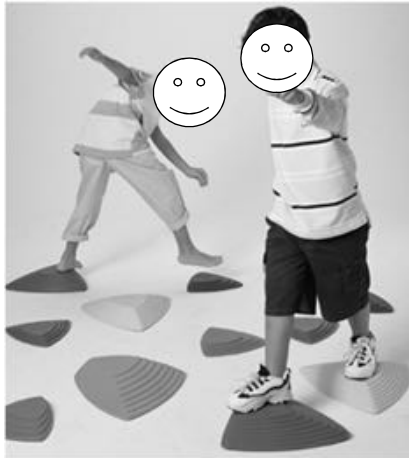
Sensory Strategies for the Classroom

- Send on errand to another teacher or office
- Have them re-arrange the classroom desks
- Move heavy objects or large crash pad pillows
- Wall pushups, chair pushups
- Make obstacle course in classroom
- Sensory breaks for whole class

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continued

Classroom Strategies cont.



- Balancing activities
- Example of math activity with obstacle course
- Walking across balance beam
- Use of bean bags
- Animal walks to line up

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Seating and Posture

- Therapy balls
- Hips and knees at 90 degrees
- Duct tape phone books for under their feet
- Slant boards
- Prone on the floor
- Bean bag chairs with clip boards

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continued

Yoga and Therapeutic Movement



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continued

Disclaimer

- If you have no previous experience with yoga, please get help from a certified instructor on posture and movement for you or your child
- The information presented is to give therapists and parents ideas on how therapeutic movement can benefit sensory regulation, focus, strength, coordination, breathing and overall health.

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continued

History of Yoga and Therapeutic Movement

- We know that movement is important for development
- We also know that language, focus, sensory regulation, improves with movement and the use of yoga and breathing can help achieve this.



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Tools to Start Yoga

- A yoga mat or a towel (something to define the space for a child)
- Folded blanket
- Water bottle
- Comfortable clothes
- Possibly a block
- Calming music or even fun music depending on the child
- A quiet space

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The Yoga System

- The yoga system was built on three main structures: exercise, breathing, and meditation. Exercise is for the body's total health and strength, breathing is the source of life for the body and meditation is to help quiet the mind and allow healing from daily stress.

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continued

What Does Yoga Teach Us?

- **Bodies** – physical postures and exercise (called asanas) help bring strength and flexibility to our bodies. There are both active and passive asanas and both benefit your mind and body for different reasons.
- **Active** poses help build strength, flexibility, and muscle tone, help move energy throughout the body and activates the brain and nervous system.
- **Passive** poses are mostly meditation and deep relaxation. These are typically done at the end of your yoga practice for 10-20 min

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- **Breath-** breathing is a crucial part of life but do we actually take slow deep breaths effectively? Teaching a child how to breath slowly and deeply (called pranayama) can bring calmness and energy to them. "Pranayama is the formal practice of controlling our breath. We try to improve breathing patterns in children who are chest breathers to use a more diaphragmatic breathing technique. This type of breathing helps decrease stress and anxiety. Deep breathing helps us relax by de-activating the sympathetic nervous system (SNS), which produces stress hormones, and activating our parasympathetic nervous system (PNS) instead, which then helps lower blood pressure, decrease heart rate and relaxes us.

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continued

- **Energy-** (called prana) helps us feel more relaxed, focused and motivated. Prana is our "vital life force"
- **Balance-** learning how to coordinate both sides of our body and strengthening our core muscles. When we use the right and left side of our bodies, it makes both sides of our brain communicate through the corpus callosum which has many benefits to our children; learning, reading and bilateral coordination activities like tying shoes and riding a bike.
- **Being Still-** learning how to quiet the mind, focus, concentrate but not let your mind wander around.
- **Taking care of ourselves-** teaching children how to take care of the importance of our health including diet, exercise and sleep.

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continued

Understanding your Breathing

- to help kids learn how to breath try using visuals to demonstrate
- breathing on a mirror
- blowing cotton balls with straws
- blowing bubbles in water with a straw
- blowing bubbles

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Practice

- Lie on your back
- You can have the child place their hands on their belly, or a weighted animal and watch their belly rise and fall as they breath
- Help them understand diaphragmatic (abdominal) breathing vs. chest breathing
- Kids who are chest breathing are stuck in sympathetic arousal (fight, flight or freeze)



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Breathing Exercises

- Mindful breathing - aware of current breath first, then
- 5 deep breaths using breathing ball or 5 fingers
- Ss breath (snake breath)
- Bumblebee breath
- Ha breath (Volcano Breath)
 - this is a cleansing breath



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Mindfulness

- Mindfulness is defined as a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations. This is used as a therapeutic technique. This is all about living in the moment and taking every moment just as important as your last.

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Mindful Life for Schools/Home

- According to Kristen Race, PhD. Founder of Mindful Life™, Mindful Body, Mindful Listening, Mindful Breathing and Mindful Eating are all important parts of becoming mindful. She created a curriculum for schools to train their teachers and staff in bringing mindfulness into the classroom. See chapter 11: Yoga in Schools for more information regarding her program.
- <https://mindfullifetoday.com/>

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Mindfulness Can Improve Our:

- Awareness
- Focus
- It helps change our brain
- Reduces stress and depression
- Helps build relationships



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Why is Mindfulness Important

- Children are experiencing more stress than previous generations
- 1 in 5 children ages 9-17 have some sort of mental disorder
- Increased diagnosis; depression, anxiety, ADHD, bullying and violence etc.
- Stress on the brain and PTSD creates problems

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Chronic stress diagram.



Image via Bing

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Core Principals of Mindfulness

- Understanding the brain
- Attention and Awareness
- Emotion Regulation (part of Sensory Processing)
- Empathy/Compassion
- Cognitive Flexibility/Creativity

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Yoga for Kids

- Yoga can be fun for kids, it does not have to look like what we think yoga looks like (Calm, quiet, etc.)
- It can be silly and goofy or calm and organized depending on the child and their needs
- Sometimes it takes awhile to get a child to participate in yoga or other therapeutic movement ideas and being patient is a great tool for parents and caregivers.
- You cannot force it. Sometimes I will let children watch me and then when they are ready they can join.



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Poses that are good for digestion

- Bridge Pose
- Bow Pose
- Cat/Cow Pose
- Cobra and Sphinx Pose
- Head to Knee Forward Bend
- Knee to Chest (Right first ascending colon, Left second descending colon)
- Pigeon Pose
- Reclined Spinal Twist
- Triangle Pose

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continued

Poses that are good for Balance

- Bow Pose
- Crescent Moon Pose
- Downward Dog Pose
- Extended Cat Pose
- Lunge Pose
- Mountain Pose
- Plank Pose
- Rock-n-Roll Pose

See Chapter 5 for more

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continued

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Therapeutic Activities from a Desk

- chair pushups
- squeezing hands together
- resting chin in hand
- marching feet
- stretching arms overhead
- stretchy band around bottom of chair
- wiggle seat or therapy ball
- chewing gum
- drinking from a water bottle

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continued

Classroom Movement

- Jumping jacks
- Go Noodle videos
- Finger to nose
- Stand on one foot
- cross crawls
- Push 5's
- Wall push ups
- Side step tap foot
- Turn to right, turn to left repeat
- Slow down - reach over head, touch toes
- 3-5 deep breaths

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continued

Website Resources

- www.sensoryparenting.com
- www.sensoryyogaforkids.com
- www.fhautism.com
- www.sensoryworld.com
- www.funandfunction.com
- www.abilitations.com

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Resources

- [Sensory Yoga for Kids: Therapeutic Movement for Children of All Abilities by Britt Collins MS, OTR/L](#)
- [Sensory Parenting: Newborns to Toddlers by Britt Collins and Jackie Linder Olson](#)
- [Sensory Parenting: The Elementary Years by Britt Collins and Jackie Linder Olson](#)
- [Sensational Kids by Lucy Jane Miller](#)
- [Raising a Sensory Smart Child by Lindsey Biel](#)
- [Growing an In-sync Child by Carol Kranowitz](#)
- [Parenting a Child with Sensory Processing Disorder by Christopher Auer and Susan Blumberg](#)

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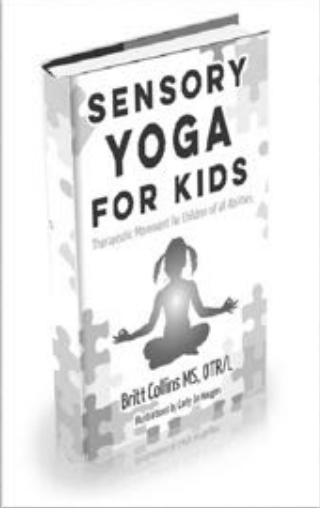
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Questions?

Thank you for your time

www.sensoryyogaforkids.com

www.sensoryparenting.com



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It's elementary: Foundations for school readiness Virtual Conference

| | |
|-----------|---|
| Mon 8/6 | Sensory Regulation and Yoga Britt Collins, MS, OTR |
| Tues 8/7 | Practical Strategies for Improving Visual and Fine Motor Skills Emily Dassow, OTR/L |
| Wed 8/8 | Executive Functioning in the Classroom Cara Koscinski, MOT, OTR/L |
| Thurs 8/9 | Early OT Exposure (EOTE), A Mindful OT Screening & Intervention Angela Hissong DED, OTR/L, CMCP, CMMF, CIR |
| Fri 8/10 | Embedding School Based OT into Elementary Melanie Wheeler, OTD |

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