



Pure Community

Thank you for joining us!

Session 6: Neuroplasticity
Trainer: Michelle Kelsey Mitchell


Getting Started:

1. If you have any questions, please type them into the Q&A box.
2. Place a pen/pencil/paper nearby to jot down your thoughts.
3. At the end of this session, when you leave the meeting, there will be a link that will pop-up asking you to complete the Session Quiz / Feedback Form.
4. You will receive a follow-up email within 24 hours of this session. That email will serve as your confirmation of attendance record for this session.

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Website: www.pureedgeinc.org

Email: getmoving@pureedgeinc.org



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Introductions

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*Director of Partnerships &
 National Trainer*



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Who We Are

Pure Edge, Inc. (PEI) is a private operating foundation that provides direct service to organizations through professional development & strategy thought partnership.

PEI also provides grants to national organizations that advance the work of whole child development & SEL.



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Welcoming Activity: This or That



Respond to the questions via the poll



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Culture of Care Series: Session 6

Neuroplasticity



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Learning Objectives

- ❖ Define neuroplasticity.
- ❖ Identify the stages of brain development.
- ❖ Practice and implement Breathe, Move, and Rest Strategies for Self-awareness and Self-management.
- ❖ Identify CASEL competencies.
- ❖ Acquire Skills to train colleagues in SEL, evidence-based curricula.

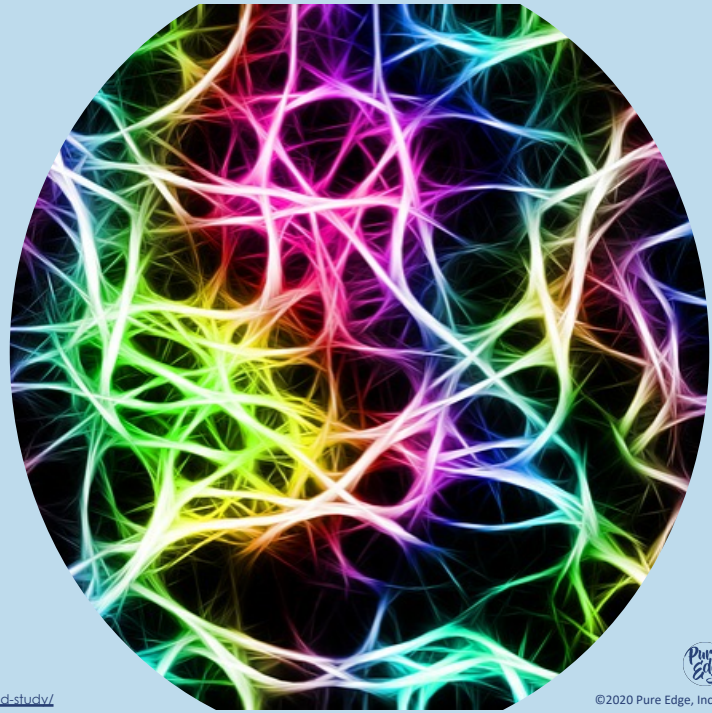


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WHAT IS **NEUROPLASTICITY**?

the brain's capacity to
change and rewire
according to environment
and experience



<https://www.projectrex.org/adolescent-brain-cognitive-development-abcd-study/>



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NEUROPLASTICITY

Like a snowy hill in winter



"The brain is like a snowy hill in winter. When we go down the hill on a sled, we can be flexible because we have the option of taking different paths through the soft snow each time. But should we choose the same path the second time or the third time, tracks will start to develop, and these tracks become really speedy and efficient at guiding the sled down the hill. It doesn't take long to get literally stuck in a rut. Taking a different path becomes increasingly difficult, but, thanks to the brain's wondrous capacity for learning and rewiring itself, it's not impossible!"¹

Image: <http://www.vallevedgesnowtubing.com/PHOTOGALLERY.html>

Doidge, N. (2007). *The Brain That Changes Itself: Stories of Personal Triumph From the Frontiers of Brain Science*. New York, NY: Viking Press.



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Neuroplasticity



Stanford University professor and world-renowned psychologist, Carol Dweck, PhD, conducted a landmark study which found that when students are taught that intelligence is *not* fixed but is changeable, it made a dramatic impact on both their grades and morale.

<https://uppercervicalforimvets.com/health-conditions.html>



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Neuroplasticity



*Neurons that fire together,
wire together.*

~Donald Hebb



Scientists have found that new habits, ideas, and thoughts can be continually learned and changed throughout our entire lives. Sensory input prompts neurons to communicate, and if particular neurons communicate with one another often enough, a strong neural connection is made.

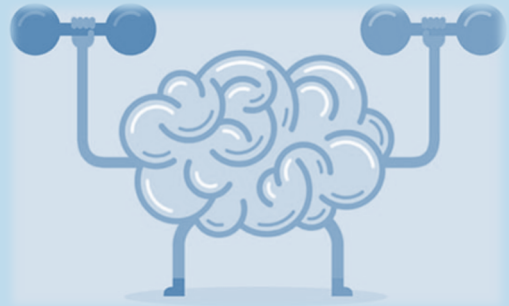


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Neuroplasticity

- ❖ There are as many neurons in the brain as stars in the Milky Way: about 100 Billion.
- ❖ The brain physically stops growing around 18, but it keeps changing forever.
- ❖ By design, our brains are all about growth and change - as is the whole human body.
- ❖ Celebrate mistakes that make the brain grow.



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Engaging Activity: Even In – Even Out

1. Start in Seated Mountain with a tall spine, relaxed shoulders, and eyes gently closed.
2. Breathe naturally through the nose.
3. We are going to focus on making our inhales and exhales even.
4. Inhale deeply through the nose and exhale through the mouth for a count of one.
5. On the next breath, let's count to two on the inhale and the exhale.
6. Repeat, continuing to extend the breath up to a count of five.

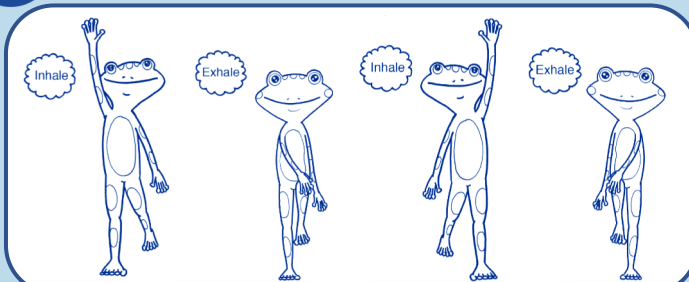


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Engaging Activity: Brain Balance Sequence



1. Inhale, take the right arm overhead and the left foot slightly behind, placing only your toes on the floor.
2. Exhale, lift the left leg, knee bent, and touch the right hand to the inside of the left knee.
3. Inhale, return the right arm overhead and the left foot slightly behind placing only your toes on the floor.
4. Exhale and again lift the left leg, knee bent, and touch the right hand to the inside of the left knee.
5. Repeat on the other side.



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Engaging Activity: STOP

- ❖ STOP is an exercise designed to help learners practice self-regulation when they are experiencing strong emotions.
- ❖ Learners learn to go through the four steps: S-T-O-P
- ❖ It is a good idea to practice this exercise when learners are not experiencing strong emotions, so that they will be able to implement it when they are.
- ❖ The main focus is to hone learners' observation skills to help them make more mindful choices.
- ❖ When we observe, we are just noticing what we feel in our bodies, we are not saying if something is good or bad.
- ❖ For further exploration, ask learners how the quality of their breath changes when they are laughing, sobbing, anxious, frightened, angry, relaxed, surprised, or startled.
- ❖ Underscore two important features of mindfulness practice:
 1. Consistent practice—keep trying!
 2. Learn from unmindful moments, without being too harsh on yourself.



Elisha Goldstein, "Stressing Out? S.T.O.P.," *Mindful*, May 29, 2013.

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MINDSETS



versus



A growth mindset inspires the necessary ingredients for achievement: a love of learning, perseverance, courage, and resilience. Neuroscientists have proven that the growth mindset works because our brains are constantly changing and growing, enabling us to learn new things.

Image: Pure Edge Pure Power Curriculum, Grades 3-5

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The Power To Grow and Stretch teaches the principle of resilience and cultivating a “growth mindset.”

Attitude affects behavior and the ability to succeed in different environments.

Focus on how to recognize negative self-talk, or a fixed mindset, and develop the positive self-talk of a growth mindset.

Developing a growth mindset empowers us to face daily frustrations with more mindful responses and maintain effort despite setbacks.

Image: <https://simply.wordpress.com/tag/online-learning/>

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We Always Practice

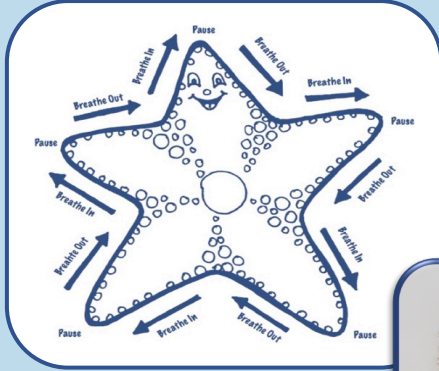
- Self-care 
- Brain Breaks 
- Modeling SEL Lesson Structure 

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Engaging Activity: Starfish Breathing or Take Five



1. Lift one hand, fingers spread wide.
2. Put the index finger from the other hand on the outer base of the thumb.
3. We are going to trace the outline of our hand. Keep looking at your pointer finger while you do your breathing.
4. Inhale (finger traces to top of thumb).
5. Exhale (finger traces down the other side of thumb).
6. Repeat until you have traced the outline of the hand.



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Engaging Activity: Chair Eagle



1. Sit in Seated Mountain.
2. Cross your right thigh on top of your left.
3. Inhale and bring your arms up with elbows bent and palms facing forward (cactus arms).
4. Exhale and cross your left elbow on top of your right. Touch the back of your hands together. If it feels comfortable, bring palms together.
5. Inhale and lift elbows up until you feel a comfortable stretch.
6. Look at your thumbs and take 3 relaxed breaths.
7. Release on an exhale.
8. Repeat second side (left thigh on top, right arm on top).



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Engaging Activity: Guided Rest / Body Scan

1. Lie down on the floor on your back. Spread your feet apart. Turn your palms up to face the ceiling and close your eyes.
2. Put your attention on your forehead. Feel your forehead relax.
3. Put your attention on your eyes. Feel your eyes relax.
4. Put your attention on your cheeks and jaw. Feel your cheeks and jaw relax.
5. Put your attention on your neck. Feel your neck relax.
6. Put your attention on your shoulders. Feel your shoulders relax. (Repeat for arms, wrists, hands, fingers.)
7. Put your attention on your chest. Feel your chest relax.
8. Put your attention on your back. Feel where your back touches the floor (or the chair).
9. Put your attention on your belly. Notice how the breath moves the belly softly up and down.
10. Put your attention on your hips. Feel your hips relax. (Repeat for legs, knees, ankles, feet, toes.)
11. Bring your awareness to your breathing and notice where you feel the breath in your body. Maybe you notice it in your nostrils. Maybe you feel it in your chest. Maybe you feel it in your belly.
12. See if you can get really quiet. Maybe you will even feel your heart beating inside your body.
13. Let learners rest in silence for a few moments.
14. Ring chime.
15. Slowly start to wiggle your fingers and toes. Take a deep breath in and stretch your arms overhead. As you exhale, relax.
16. Open your eyes and slowly return to a seated position.
17. Notice how you are feeling.



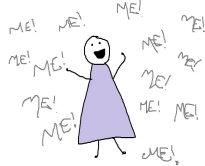
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Optimistic Closure: Synectics

"Self-Talk" is like...

1



3



5



2



4



Because...



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Brain Breaks Review



Breathe

- ❖ Even In – Even Out
- ❖ Starfish Breathing/Take Five



Move

- ❖ Brain Balance Sequence
- ❖ Chair Eagle



Rest

- ❖ STOP
- ❖ Guided Rest/Body Scan



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Guiding Question

What is neuroplasticity?

Grades 6-12, Lesson 4.7

What does it mean to “grow” your brain?

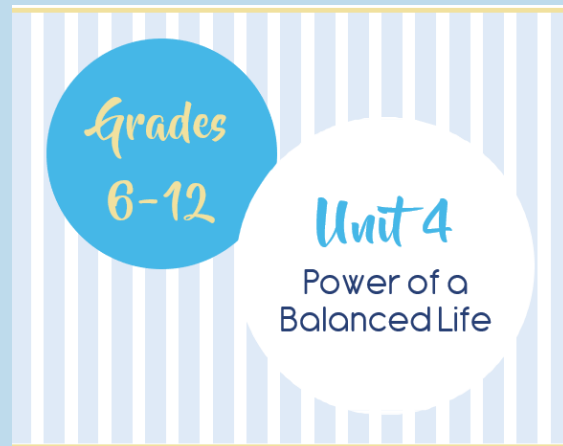
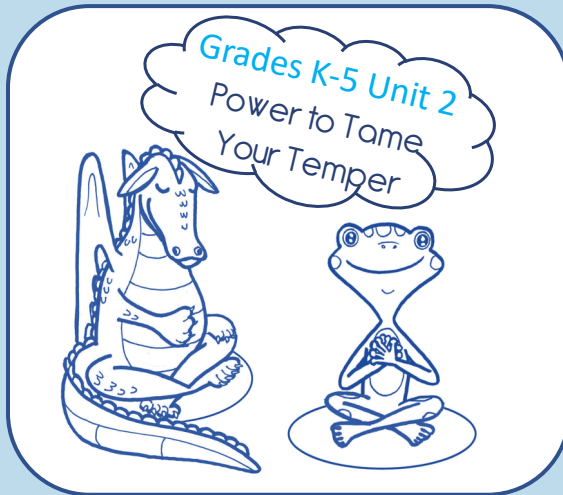
Grades 3-5, Lesson 2.1



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Pure Power



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Takeaways

- ❖ Use breathe, move, and rest strategies to create positive neurological pathways.
- ❖ Repetition makes new neurological pathways stronger.
- ❖ Skills become habits.
- ❖ The brain continues to make new connections.



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Homework

Self:

- 1) Each time you are able to give focused attention to your breath, purposely lengthen/extend the exhale.
- 2) Identify one new strategy of interest to you for improving brain growth.

Online Class:

Using the SEL curriculum as guidance, plan and facilitate a discussion about neuroplasticity with students.

Together in Class:

Using the SEL curriculum as guidance, plan and facilitate a discussion on growth mindset vs. fixed mindset.



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Evidence-Based Approach
Thoughtful Partnerships
Curriculum & Training

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Online Curriculum Log Out + MENU



• breathe • move • rest



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Pure Community

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