Thank you for joining us!

Session 2, Part 1 & Part 2: The Neuroscience of Stress & Neuroplasticity

Trainer: Gill McClean & Erin Cooney

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, there will be a Session Quiz / Feedback Form.

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Website: www.pureedgeinc.org

Email: getmoving@pureedgeinc.org

Culture of Care Series

Train-the-Trainer to Integrate a Culture of Care

Session 2, Part 1: The Neuroscience of Stress

Introductions

Gill McClean

gill@pureedgeinc.org

Director of Professional Development & National Trainer

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.

Introductions

Respond to the poll to tell us a little about yourself.

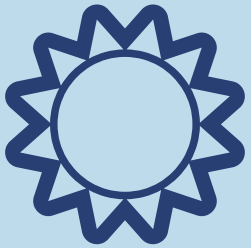
Learning Objectives

- Explore the link between stress and Allostatic Load.
- Describe the neuroscience of stress.
- Recognize the physiological response to stress.
- Analyze the affects of the stress response on the educational environment.
- Identify the Vagus nerve and its affect on the nervous system.
- Explore the connection between the Vagus nerve and emotional regulation.
- Illustrate the interconnectedness of SEL and self-care.
- 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.

Engaging Activity

Share your response with our group.

Describe Your Mood



Sunshine

Rainy

Thundery

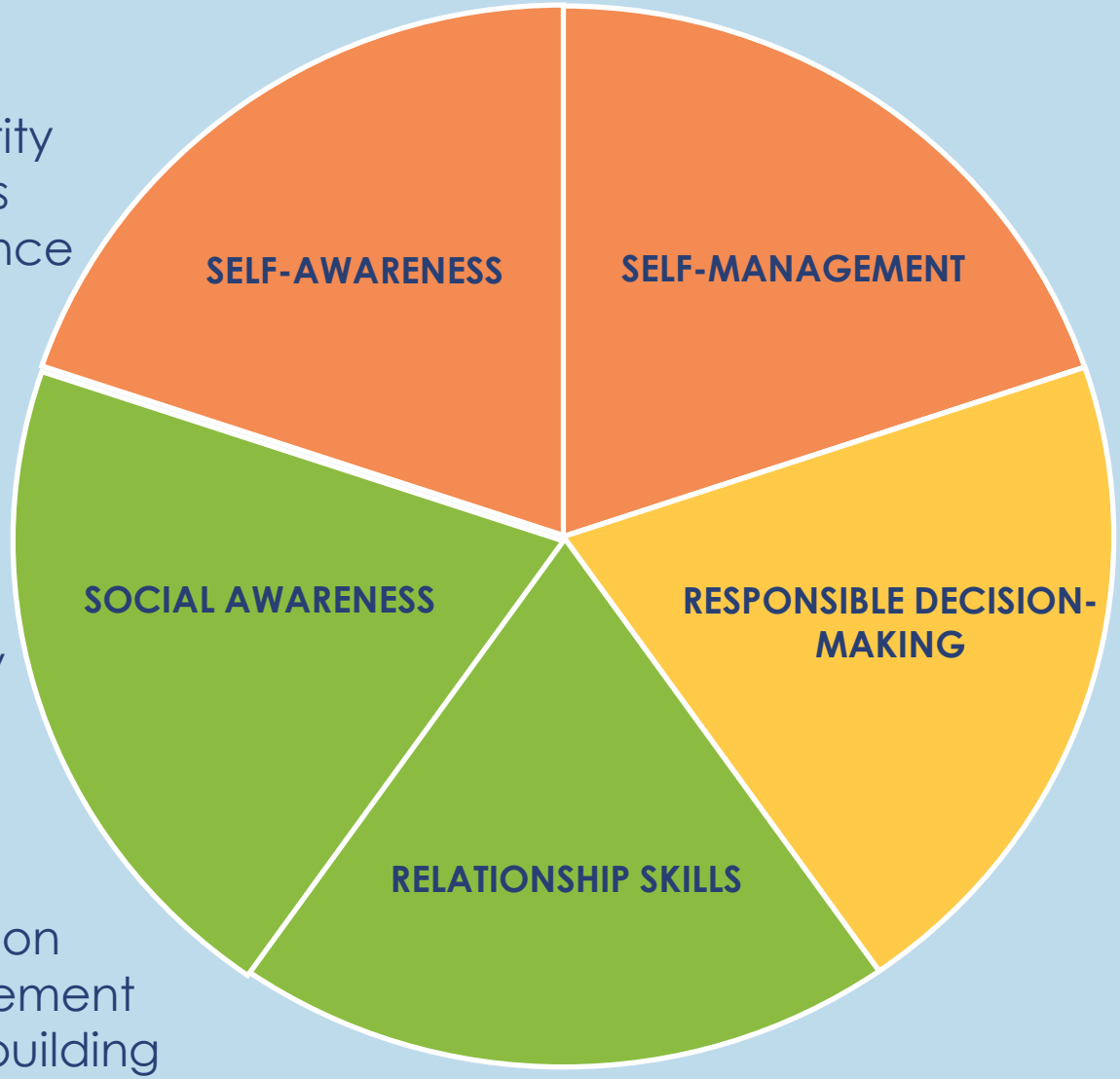
Cloudy

Rainbow

Engaging Activity: Mindful Minute

Social and Emotional Competencies

- Identifying emotions
- Self-perception/Identity
- Recognizing strengths
- Sense of self-confidence
- Self-efficacy



- Impulse control
- Stress management
- Self-discipline
- Self-motivation
- Perseverance
- Goal-setting
- Organizational skills

- Perspective-taking
- Empathy
- Appreciating diversity
- Respect for others

- Identifying problems
- Analyzing situations
- Solving problems
- Evaluating
- Reflecting
- Ethical responsibility

- Communication
- Social Engagement
- Relationship-building
- Teamwork

We Always Practice

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

Guiding Question

What does the expression "flip your lid" mean?

Breathe

Move

Rest

Review of Part 1

Modeling and Implementation of SEL

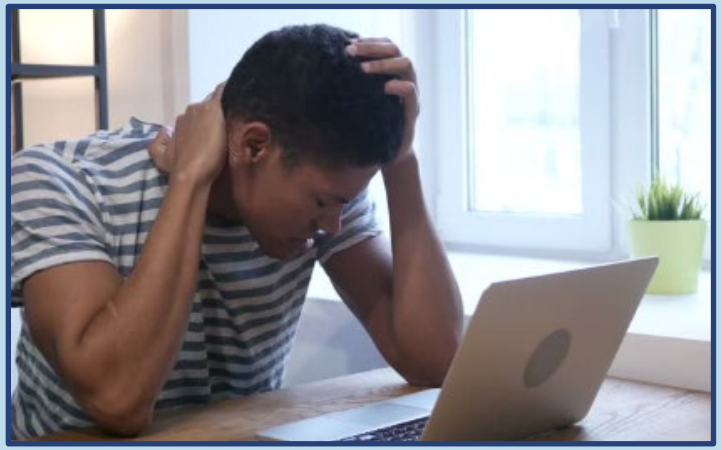
Welcoming / Inclusion Activities

Engaging Strategies

Optimistic Closure

Source: SEL 3 Signature Practices Playbook 2019

Stress Response



"Gas Pedal"

Sympathetic Nervous System:
Fight or Flight

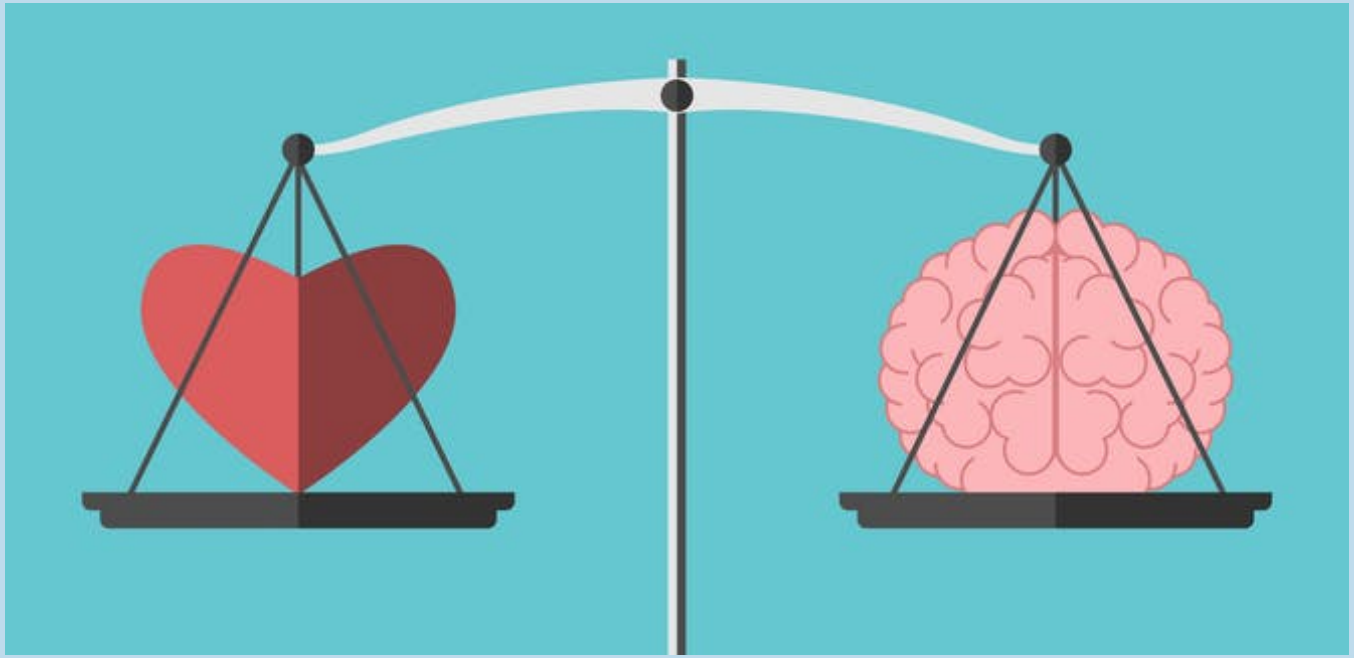
"Brake"

Parasympathetic Nervous System:
Rest and Digest

https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response
Image Sources: https://www.shutterstock.com/video/clip-22377115-tired, https://ggia.berkeley.edu/practice

Emotional Regulation

Balanced emotional regulation entails:



Feelings, thoughts, physiological signals (heart rate and breath pattern), and nonverbal communication – such as body language & facial expression.[1]

I: Saudino and Wang, "Emotional Regulation and Stress," Journal of Adult Development, 2011. http//link.springer.com/article/10.1007%2Fs10804-010-9114-7#page-2
Image: March 2, 2020, **Understanding emotions is nearly as important as IQ for students' academic success;**
Carolyn MacCann, *University of Sydney*; Amirali Minbashian, *UNSW*, and Kit Double, *University of Oxford* https://theconversation.com/us/topics/emotional-regulation-49396

Respond

vs.

Benefits of Nasal Breathing

- Filters dust and impurities from the air
- Warms the air to body temperature
- The diaphragm is more easily controlled, which supports the development of internal core strength
- More control over lengthening the breath (extended exhalations help activate the parasympathetic nervous system)
- Increased oxygen from nasal breath increases energy and vitality

Northwestern University. "Rhythm of breathing affects memory, fear: Breathing is not just for oxygen; it's also linked to brain function, behavior." ScienceDaily. ScienceDaily, 7 December 2016. www.sciencedaily.com/releases/2016/12/161207093034.htm

Engaging Activity: Alternate Nostril Breathing

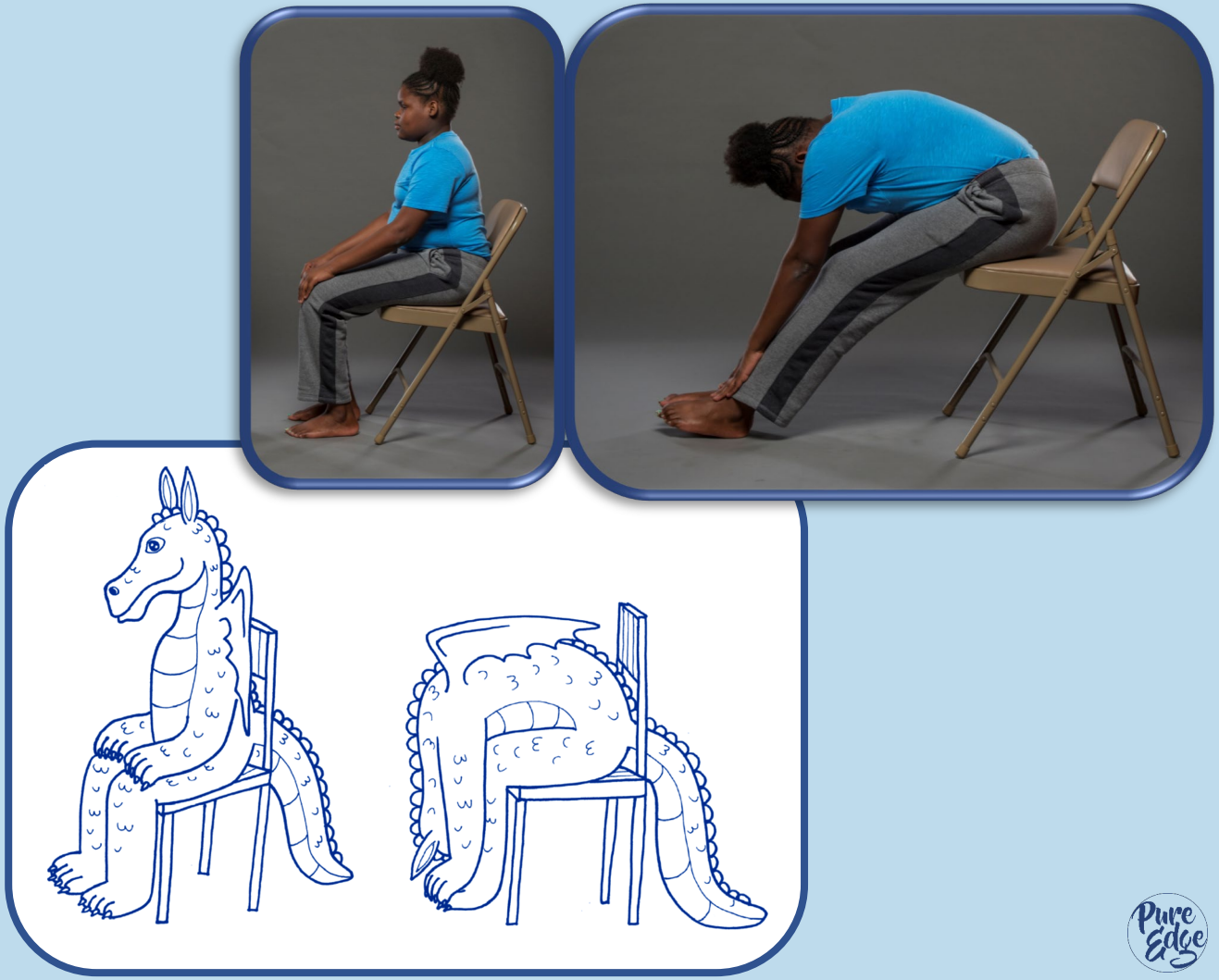
1. Let's start with a few deep breaths through the nose.
2. Inhale, close the right nostril by pressing the side of the nose with the right thumb.
3. Exhale out the left nostril.
4. Inhale through the left nostril.
5. Close the left nostril by pressing the side of the nose with your right pinky and fourth finger. At the same time, take your thumb off of your right nostril.
6. Exhale out the right nostril.
7. Inhale through the right nostril.
8. Close the right nostril with your thumb again and exhale through the left (removing the pinky and fourth finger).
9. This is one round. Complete 2 or 3 rounds by repeating steps 2-8. End on a left exhalation.
10. Take a few regular breaths.
11. Notice how you feel.

- *The hand movements will take some practice to feel comfortable.*
- *If thumb and pinky are too hard for learners to coordinate, you could use right thumb to close right nostril and left thumb to close left nostril.*
- *Once your learners have mastered the hand movements, helpful verbal cues are: inhale right, close, exhale left. Inhale left, close, exhale right.*
- *This exercise can take 1 to 3 minutes.*

Engaging Activity: Seated Forward Bend

1. Sit in Seated Mountain Pose with feet flat on the floor. Inhale and sit tall, making your back as long as possible.
2. Exhale, reach both feet slightly out in front of you and fold over your legs, sliding your hands down your legs towards your shins. Take 2-3 breaths here.
3. Inhale and come back up to Seated Mountain Pose.
4. Repeat as required.

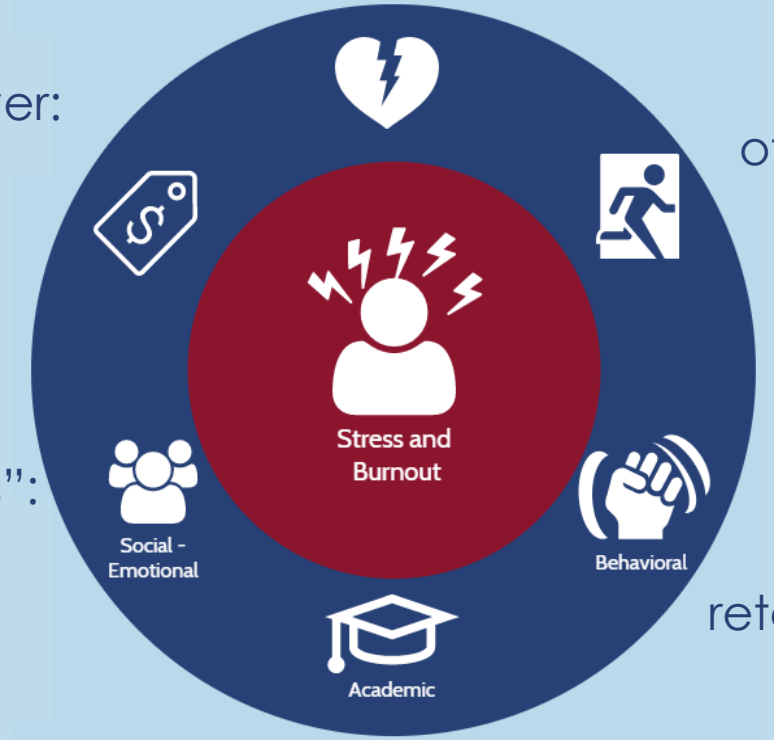
**Use this move as a quick pick-me-up or to restore when energy seems to be low.*



Why Focus on School Stress?

In highly stressed school environments, teachers and learners pay the costs.

Teacher turnover:
$2 BILLION
each year



40-50%
of **new teachers** leave within first 5 years.

High DAILY levels of stress:
46% of teachers

"Stress and disappointments":
49% of teachers
say it isn't worth it.

New principals NOT retained beyond third year:
50%

When teachers are highly stressed, students show lower levels of both social adjustment and academic performance.

Sources (clockwise from 40-50%): Ingersoll, Merrill & Stuckey (2014); Greenberg, Brown, Abenavoli (2016); School Leaders Network (2014); Rentner, Kober, Frizzell, (2016); Alliance for Excellent Education (2014).

TIRED STRESSED BORED

In 2015 the Yale Center of Emotional Intelligence & Born This Way Foundation surveyed 22,000 high school students.

Students were asked, "How do you currently feel in school?" The most common responses included:

- **Tired (39%)**
- **Stressed (29%)**
- **Bored (26%)**

Among positive responses were:

- **Happy (22%)**
- **Excited (4.7%)**

75%
of all survey responses were negative

Toppo, Greg (10/23/2015). Our high school kids: tired, stressed and bored. *USA Today* . Accessed 1/22/2018 at https://www.usatoday.com/story/news/nation/2015/10/23/survey-students-tired-stressed-bored/74412782/

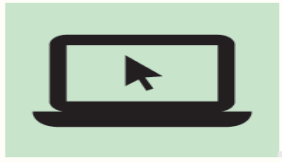
Student Mental Health

60% of K-12 students are exposed to a traumatic event.

17 million children have untreated mental health diagnoses.

2nd most common cause of death among ages 10-24 is suicide.

95% of teens have smartphones, while 45% are "online constantly."



9 hours is the average amount of media consumed each day, unrelated to school, by teens (13-18). The average for ages 8-12 is 6.

52%
is the rate of increase in major depression among youth ages 12-17, from 2005-2017.

6.1 million
children ages 2-17 have received an ADHD diagnosis.

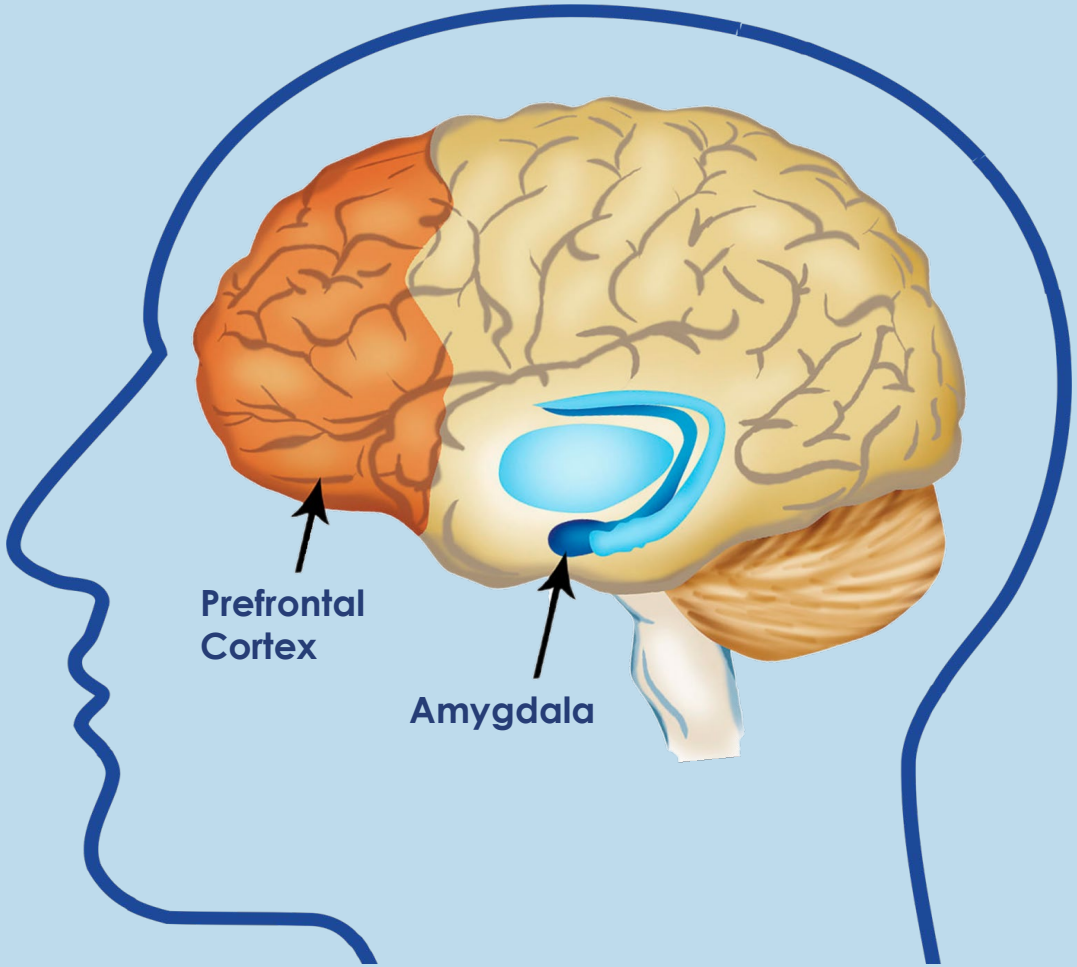
30-40%
of undergrads at Ivy League institutions seek mental health services, up 20% per year over the last 6 years.

https://www.cdc.gov/ncbddd/adhd/data.html
https://health.usnews.com/wellness/for-parents/articles/2019-04-22/teen-depression-is-on-the-rise
https://ssir.org/articles/entry/five_ways_to_advance_conservation_entrepreneurship

Engaging Activity: Even In – Even Out

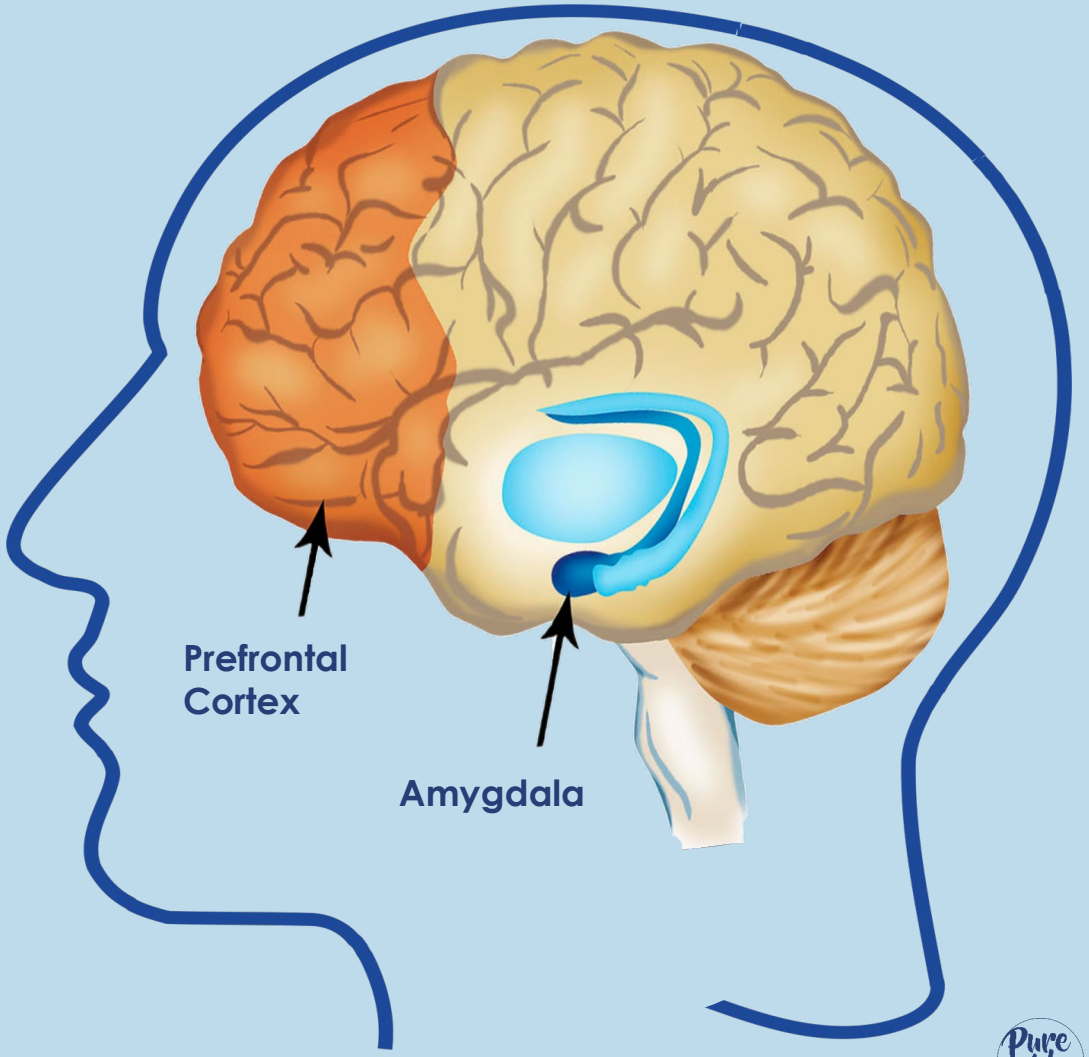
1. Start in Seated Mountain with a tall spine, relaxed shoulders, and eyes gently closed.
2. Breathe naturally through the nose.
3. We are going to focus on making our inhales and exhales even.
4. Inhale deeply through the nose and exhale through the mouth for a count of one.
5. On the next breath, lets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

Self-Regulation & the Brain

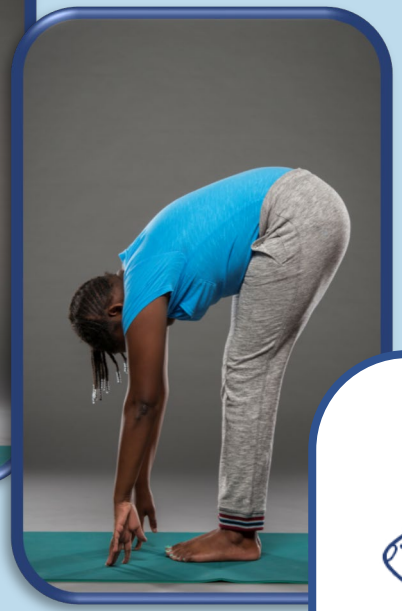


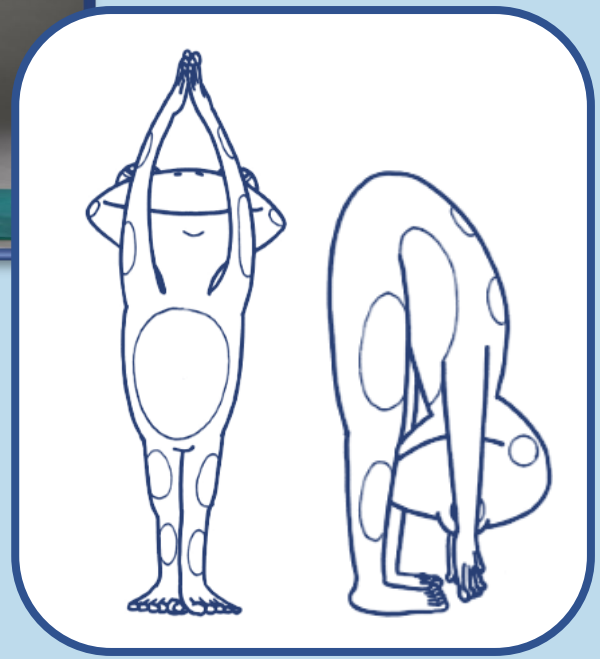
Neuroscience of Stress

- The rational part of the brain, the Prefrontal Cortex, isn't fully developed until age 25 or so.
- Adults think with the prefrontal cortex, the brain's rational part. This is the part of the brain that responds to situations with good judgment and an awareness of long-term consequences.
- Children, teens, and young adults rely on the amygdala to process information; the emotional part of the brain.



Engaging Activity: Sunrise/Sunset





1. Start in Mountain Pose. Take a few breaths here.
2. Inhale, reach your arms up overhead (this is Sunrise Pose).
3. As you exhale, fold forward. Put your hands on your shins, or your ankles, or maybe the floor (this is Sunset Pose).
4. Inhale all the way back up to Sunrise.
5. Exhale hands down for Mountain.
6. Repeat a few times. Notice how you feel.

Blue Zone

Red Zone

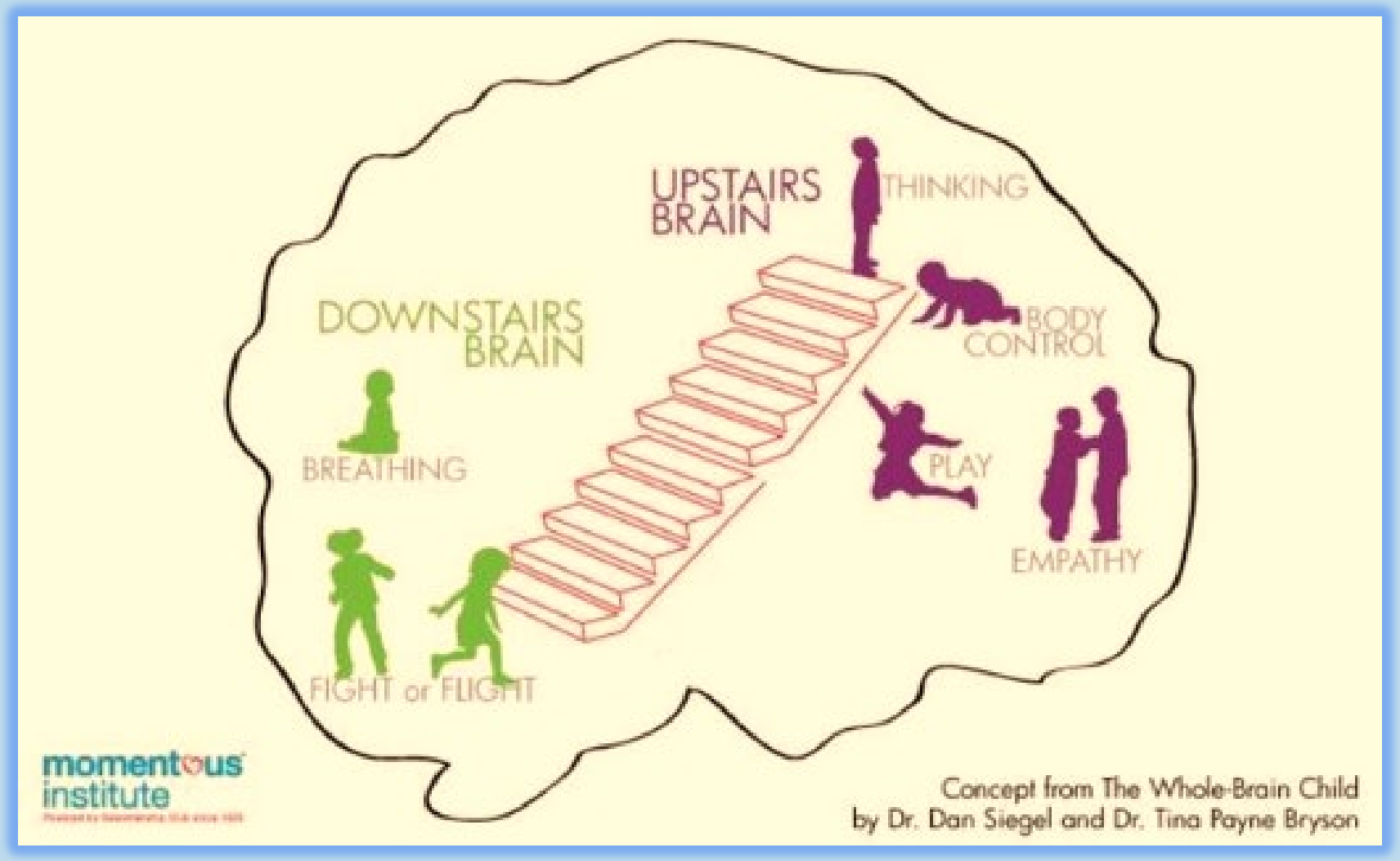
Source: Siegel, Daniel J., and Tina Payne Bryson. *The Yes Brain: How to Cultivate Courage, Curiosity, and Resilience in Your Child*. First edition. New York: Bantam, 2018. Print.

Green Zone

Image source: https://www.goodnewsnetwork.org/get-drunk-happiness/

Source: Siegel, Daniel J., and Tina Payne Bryson. *The Yes Brain: How to Cultivate Courage, Curiosity, and Resilience in Your Child*. First edition. New York: Bantam, 2018. Print.

Review



Neuroscience of Stress

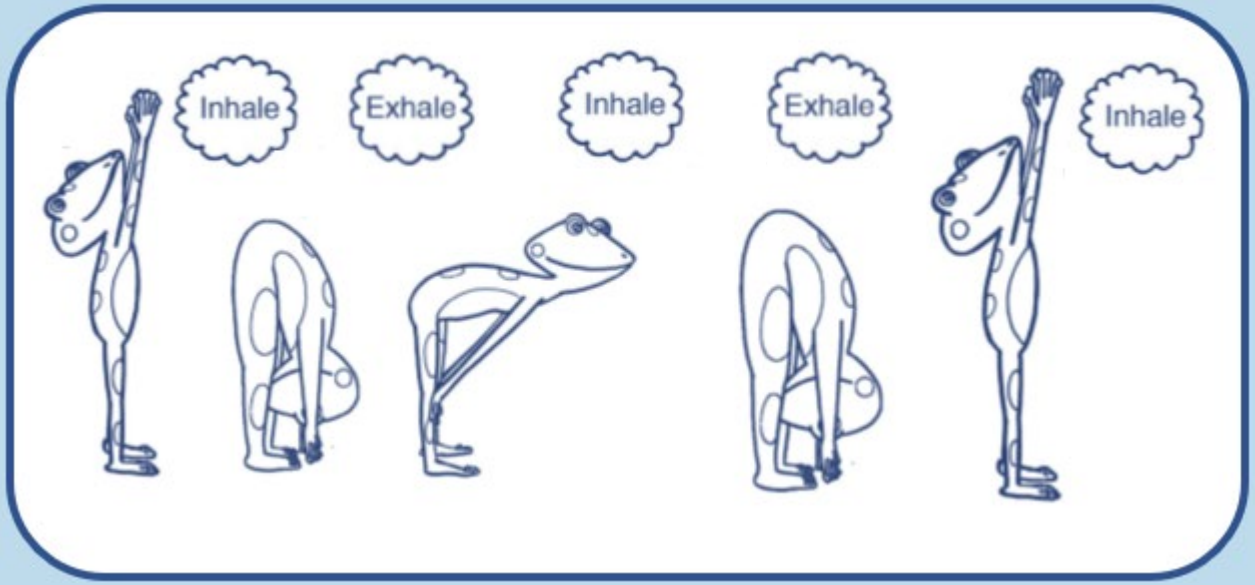
Integrating upstairs downstairs strategies:

1. **CONNECT, THEN REDIRECT:** Be present with your child's feelings, help them get into the "green zone."

2. **Breathing** will help bring the prefrontal cortex ("upstairs brain") back online.

3. **Move** it or lose it: Get child moving and their mood will change.

Engaging Activity: Recharge Sequence



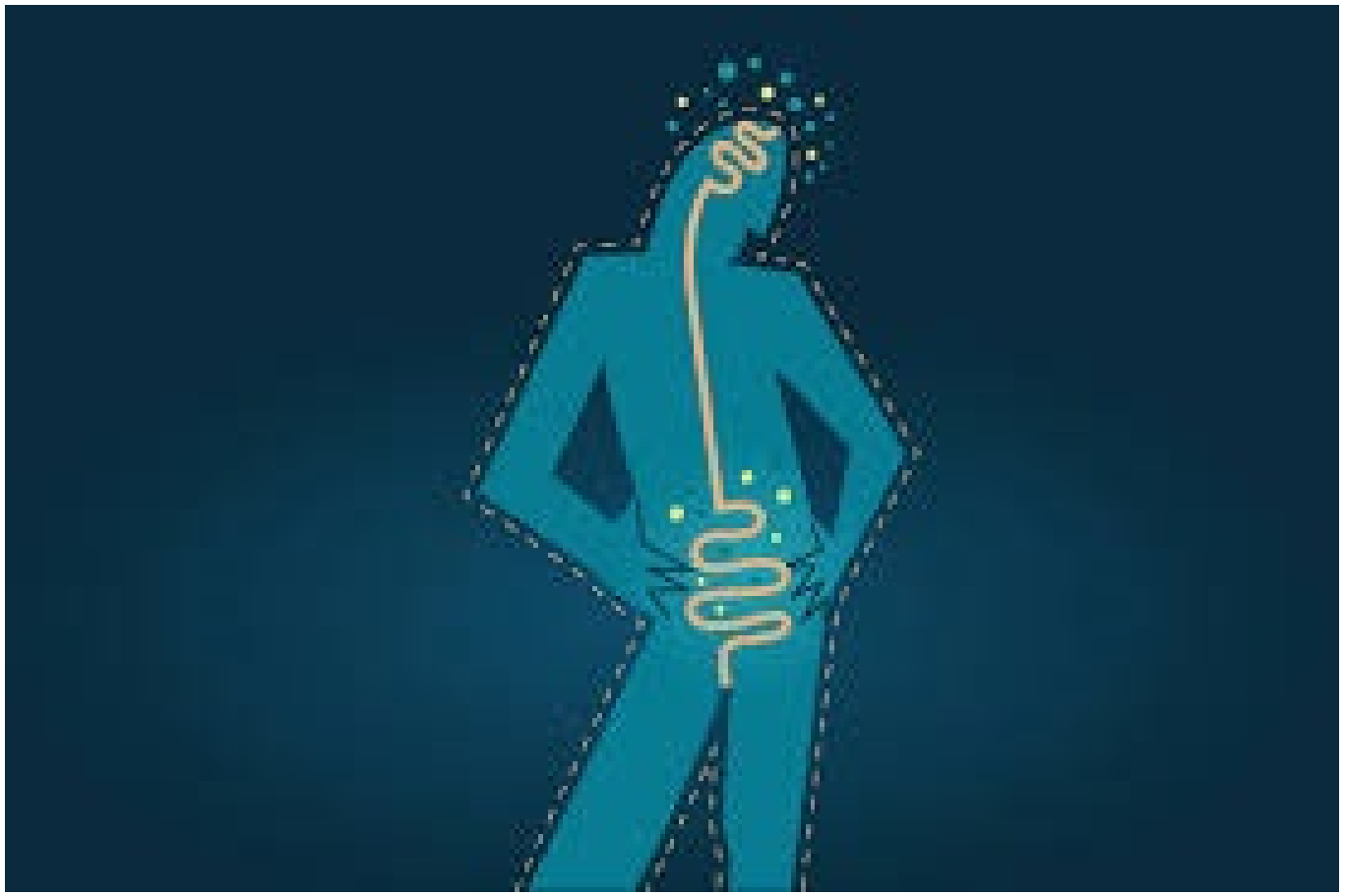
1. Begin standing in Mountain with feet slightly apart, hands at your sides.
2. Inhale, take your arms overhead and look up.
3. Exhale and fold over your legs, bending the knees slightly to allow the hands to rest on the shins, the feet or the floor.
4. Inhale, place hands on shins, straighten legs and look up.
5. Exhale and fold over the legs once more.
6. Inhale, come all the way up to standing, arms overhead and look up.
7. Exhale, return to Mountain.

**This sequence can be done behind or in front of desks/chairs. It's useful to re-energize learners when they get tired.*

Neuroscience: Vagus Nerve

The vagus nerve, the tenth cranial nerve, is the superhighway of the nervous system that **connects** the body and brain.

Image: https://naturalwestmichigan.com/toning-the-vagus-nerve/



Vagus Nerve

Latin for "wanderer," which is appropriate for the longest cranial nerve in the body.

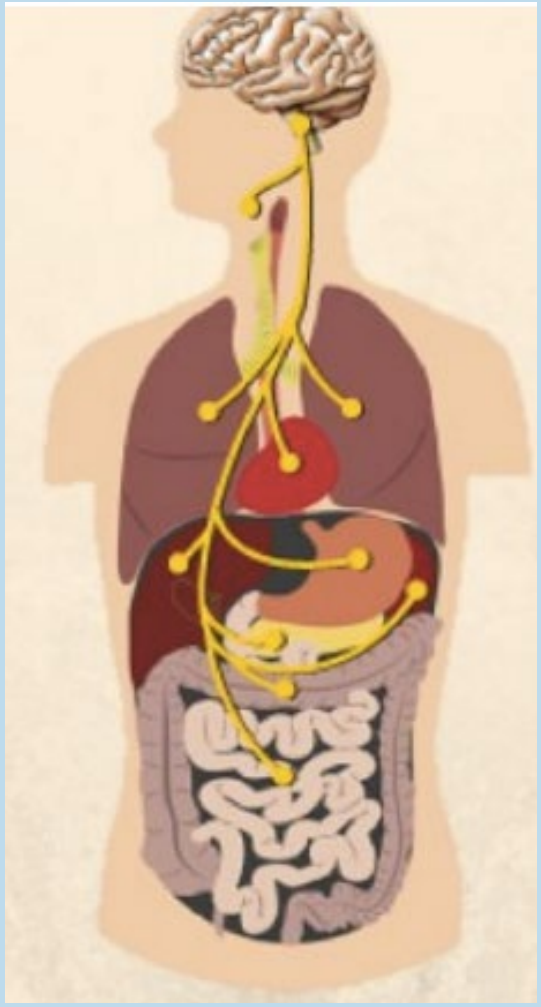
It is intricately connected to:

- Mood
- Immune response
- Digestion and
- Heart Rate[1]

Image: Gersema, Emily, "Gut Instinct may have been the GPS of human ancestors." USC News: https://news.usc.edu/144479/vagus-nerve-research-gut-instinct-may-have-been-gps-of-early-humans/

1:Breit, Sigrid, et al. "Vagus Nerve as Modulator of the Brain-Gut Axis in Psychiatric and Inflammatory Disorders", Frontiers in Psychiatry, 13 March 2018

Neuroscience: Self-Care & Vagal Tone



THE VAGUS NERVE

How to Hack Your Nervous System

We can tone the ***vagus nerve*** through deep breathing exercises.

When the vagus nerve is relaxed, strong emotions are quelled and stress is reduced.

http://depressivedisorder.blogspot.com/2015/09/7-ways-to-stimulate-your-vagus-nerve-to.html
https://www.yogauonline.com/yogau-wellness-blog/vital-vagus-what-vagus-nerve-and-what-does-it-do

Vagus Nerve

It is also associated with the sensing and expression of emotions.

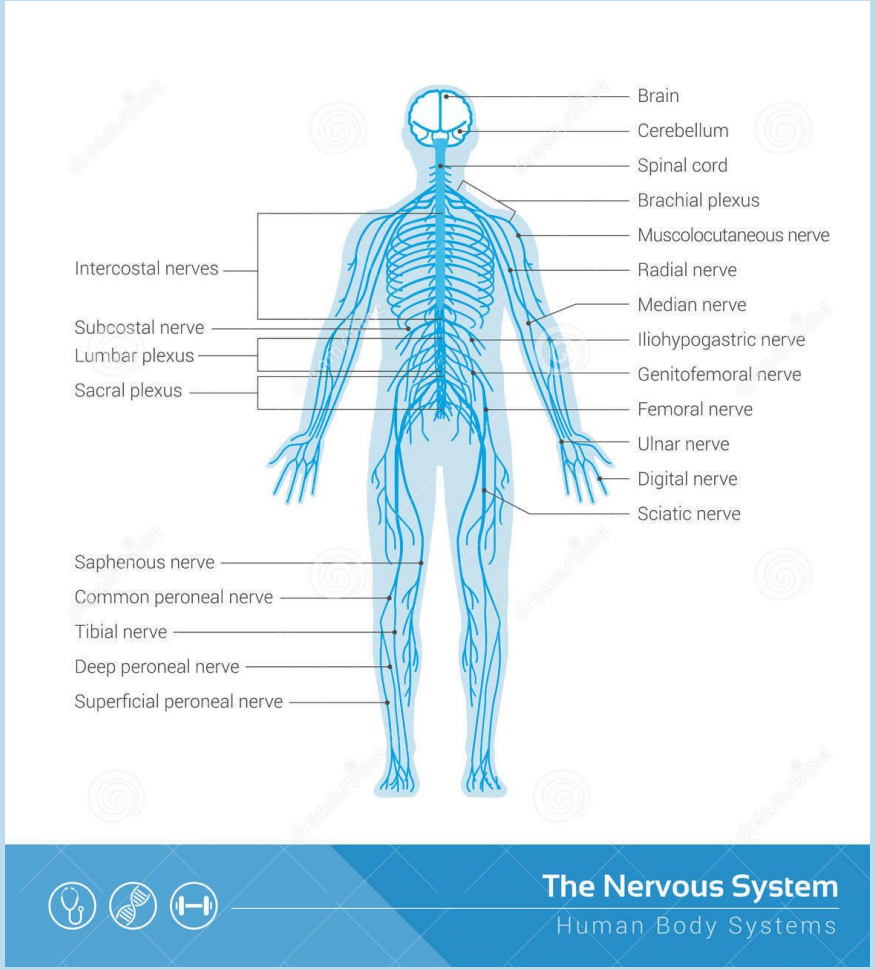
It innervates (supplies) the **vocal cords** and modulates (varying strength/tone/pitch) how we change **our voices to express emotion**; **our faces**, where we convey emotion; and courses **along our hearts**, where we often feel emotions.[1]

1: David DiSalvo, "Forget survival of the Fittest: It is Kindness That Counts," *Scientific American*, 2009.

Vagus Nerve: Autonomic Nervous System

The body's unconscious control system

Regulating, internal organs to optimizing health, growth and restoration also known as **homeostasis**.[1]

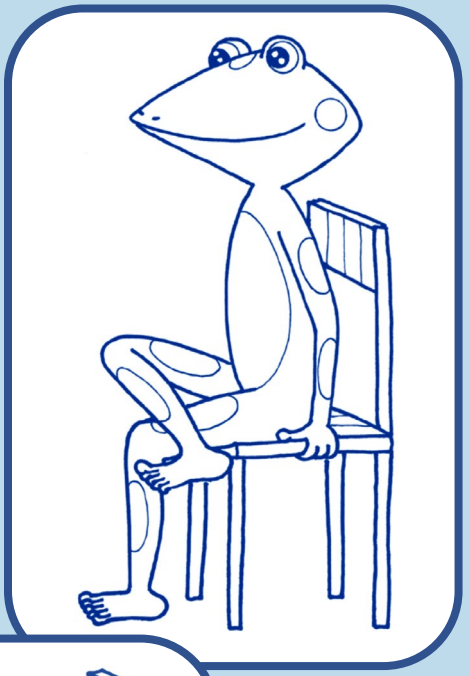


1: Porges, Stephen, "*The Pocket Guide to the Polyvagal Theory*," (New York: W.W. Norton & Company, Inc., 2017), 15
Image Source: https://bodytomy.com/human-nervous-system-diagram

Engaging Activity: Seated Figure Four

1. Begin in Seated Mountain Pose.
2. Inhale, cross the right ankle over the left thigh, just above the knee. Place the right hand on the right thigh and left hand on the right foot.
3. Exhale, fold torso forward and relax the head down. Take 2-3 breaths here.
4. If it's easier, you can hold the legs of the chair as you fold forward.
5. Inhale, come back to Seated Mountain.
6. Switch legs and repeat on the other side.

**Use this sequence to release the back, which can get tired from sitting.*



Parasympathetic

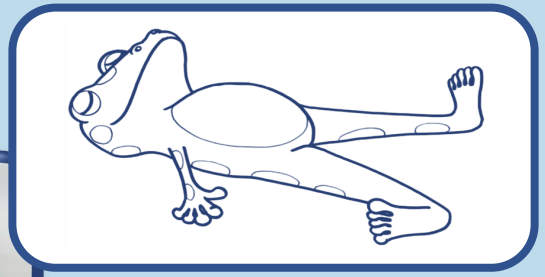
Parasympathetic activation moves the body toward **homeostasis**.

- Our inhalations/exhalations become **smooth & quiet**.
- The nervous system becomes **calm**.

Image: https://elemental.medium.com/science-confirms-that-the-vagus-nerve-is-key-to-well-being-c23fab90e211

Engaging Activity: Guided Rest or 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.



Takeaways

- Vagus Nerve: Body-Brain Connection and Emotions.
- Vagus Nerve: Parasympathetic-Sympathetic Nervous System.
- Breathe, Move, and Rest Brain Break practices
- The 3 signature practices to integrate SEL into a lesson are: Welcoming Activity, Engaging Activity, and Optimistic Closure.

If you are just joining us, we are on a 5 minute break.

Part 2 will start momentarily.

Culture of Care Series

Train-the-Trainer to Integrate a Culture of Care

Session 2, Part 2: Neuroplasticity

Introductions

Erin Cooney

erin@pureedgeinc.org

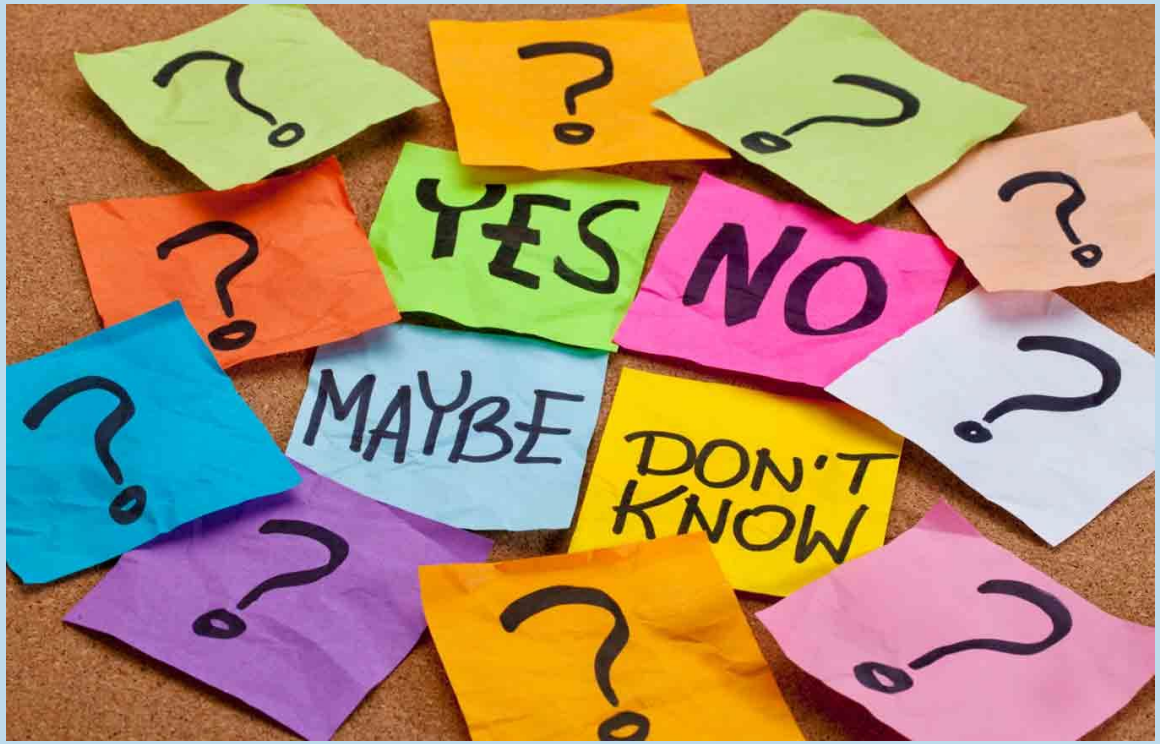
Director of Curriculum & National Trainer

Engaging Activity: One Minute Reflection

1. Before leaving school take a moment to pause and reflect on today.
2. Sit comfortably, either at your desk or on the floor.
3. Were there things you did today that you are proud of? Let them soak in for 20-30 seconds.
4. Feel good about your accomplishments.
5. Were there things you felt you could have done better or differently? It's ok to make mistakes or missteps.
6. Tomorrow, with a fresh mind and even breathing, you can try again.

**If on the floor, sleeping crocodile can be done lying on the belly. Instruct learners to cross arms, "make a pillow with your hands" and lie down with head resting on hands.*

Welcoming Activity: This or That



Respond to the questions in the poll.

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.

Engaging Activity: Ocean Breathing

1. Inhale through your nose.
2. As you exhale, whisper the sound ahhh through your mouth. Repeat two or three times.
3. On the next breath, close your mouth, exhale, and send the whisper sound through your nose.
4. See if you can find the same whisper sound in the nose on the inhalation and the exhalation.

**Ocean Breath is created by lightly constricting the throat to create a hissing sound as you breathe in and out through the nose.*

**If you can't find the sound at first, just keep practicing.*

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/

NEUROPLASTICITY

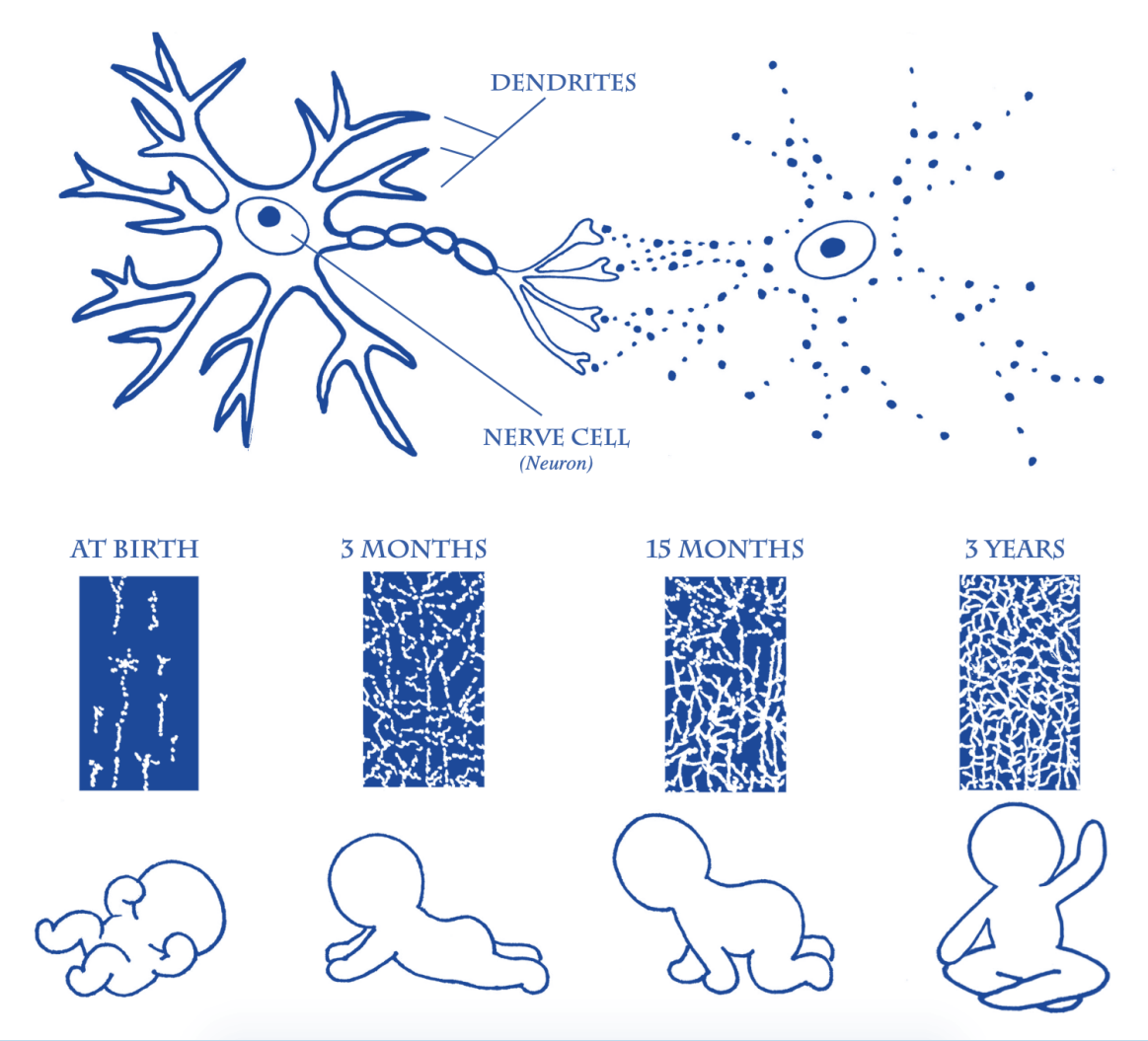
Like a snowy hill in winter

"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.valleysedgesnowtubing.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.

Brain Development Factors



https://classroomclipart.com/

Engaging Activity: Thumb Staring

1. Start in Seated Mountain with hands in your lap.
2. Gaze softly down at your thumbs.
3. Try to keep your eyes on your thumbs until I ring the chime again.

- *Ring the bell... and wait 30 seconds.*
- *Ring the bell again and ask learners for feedback. Were they able to keep their gaze on their thumbs the whole time? If so, how did they do it? Did they experience any distractions?*
- *This exercise complements "Listen to the Chime" except it focuses on the sense of sight more than the sense of hearing. You can offer both exercises, and ask learners what feels different with eyes open versus eyes closed.*

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).

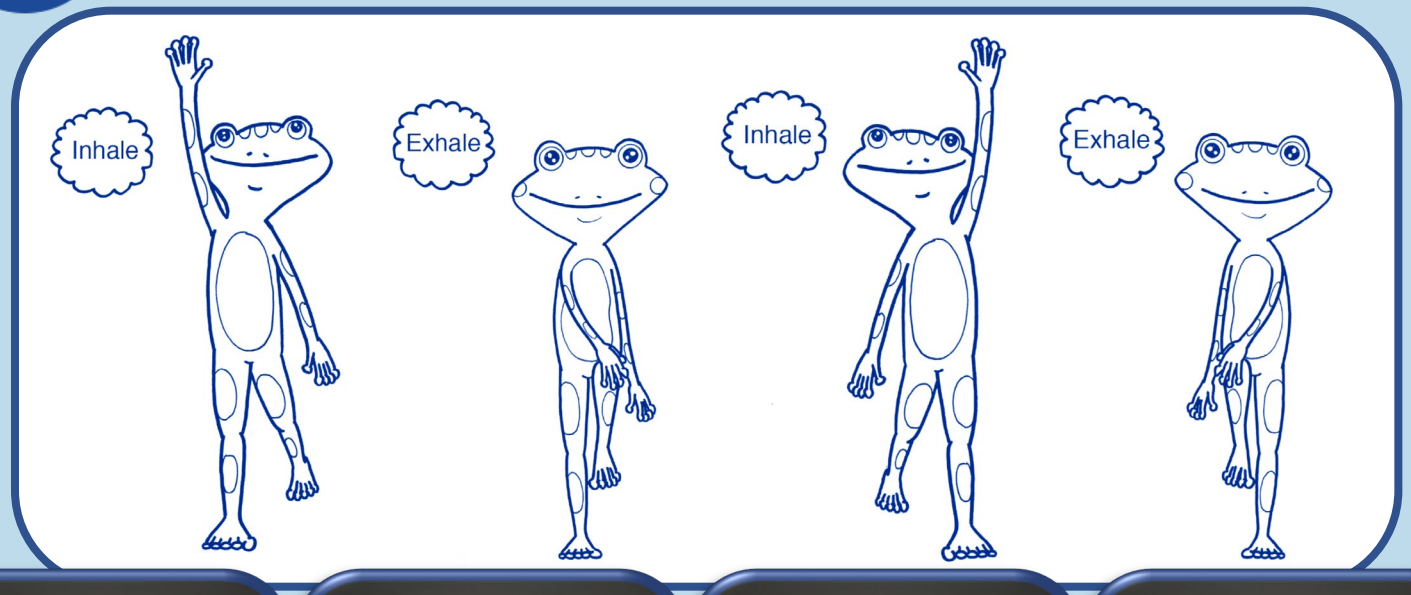
**If practicing on the floor, you can substitute Standing Eagle, or sit with crossed legs and simply do the Eagle arm positions.*

Why Neuroplasticity is Important

Studies have shown that your mind can repair and rewire itself.

- Learning and memory, key parts of what it means to be human, would not be possible without this process.
- It is a loop that gets stronger through repetition.
- There is a "Golden Period" when learning is faster but our brains never stop growing.
- Our brains are shaped by what we focus on.

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.

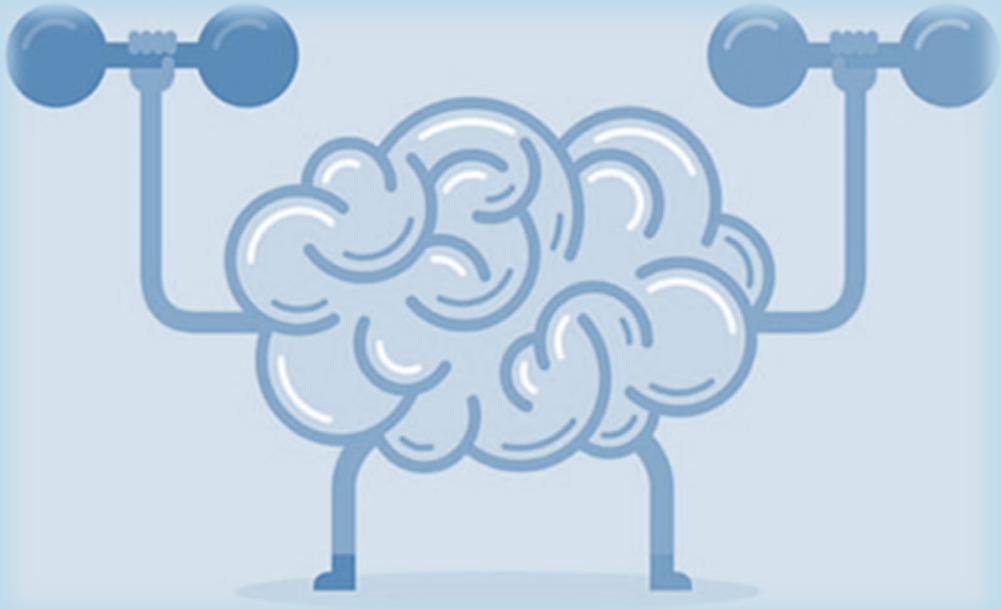
Neuroplasticity

> *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.

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.



Self-Care Practice

https://www.kqed.org/mindshift/53681/how-movement-and-exercise-help-kids-learn

Please take out your phone, laptop or notebook for a two-minute free write. The goal is to check in with yourself.

What is on your mind?

or

How are you feeling?

Movement Sequence

Mountain

Mountain/Sunrise x 2-3

Half Opening Sequence A x3

Big Toe

Star into Triangle

Tree

Sandwich

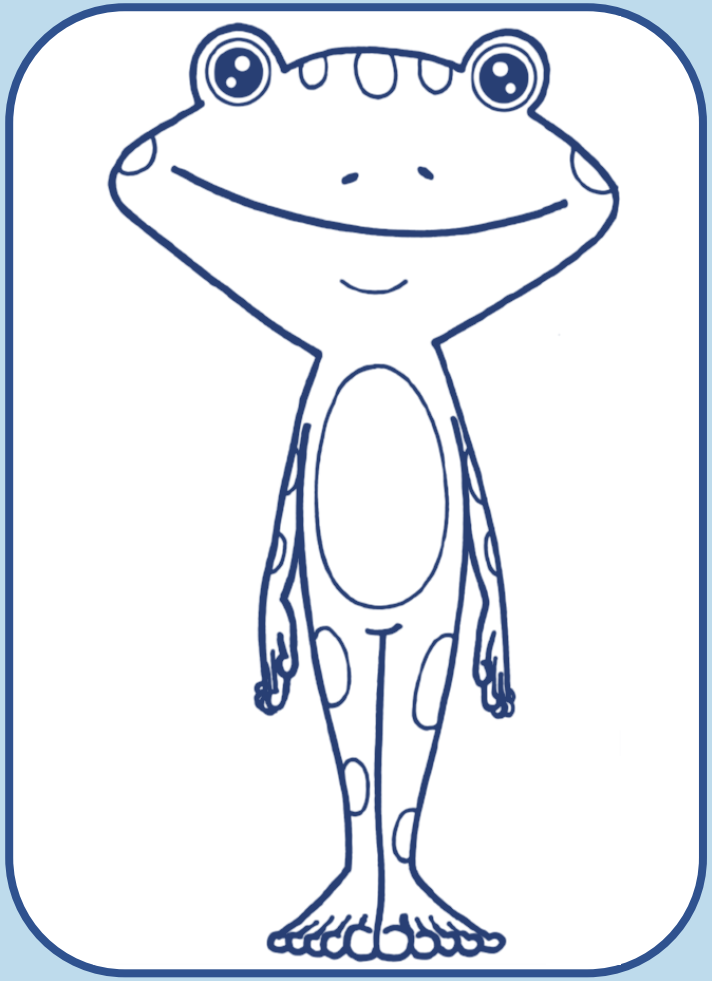
Table

Butterfly

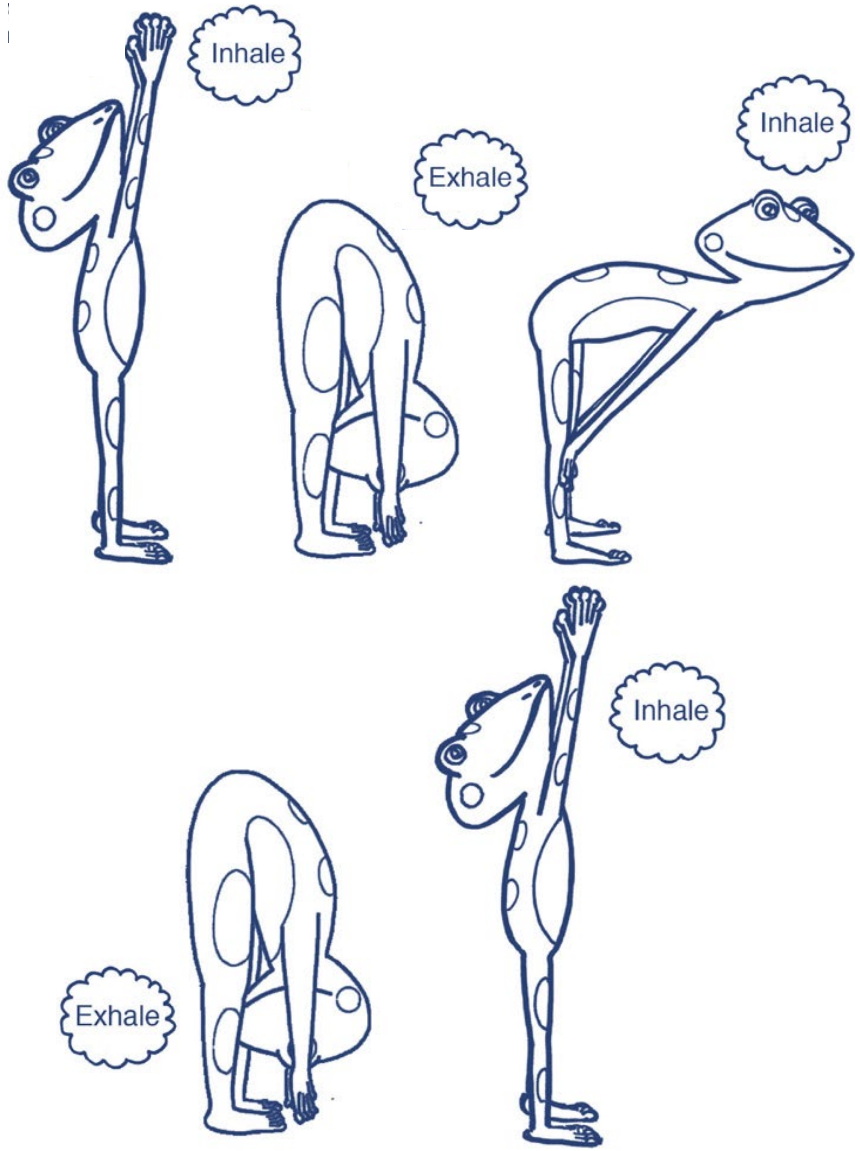
Seated Mountain

Guided Rest

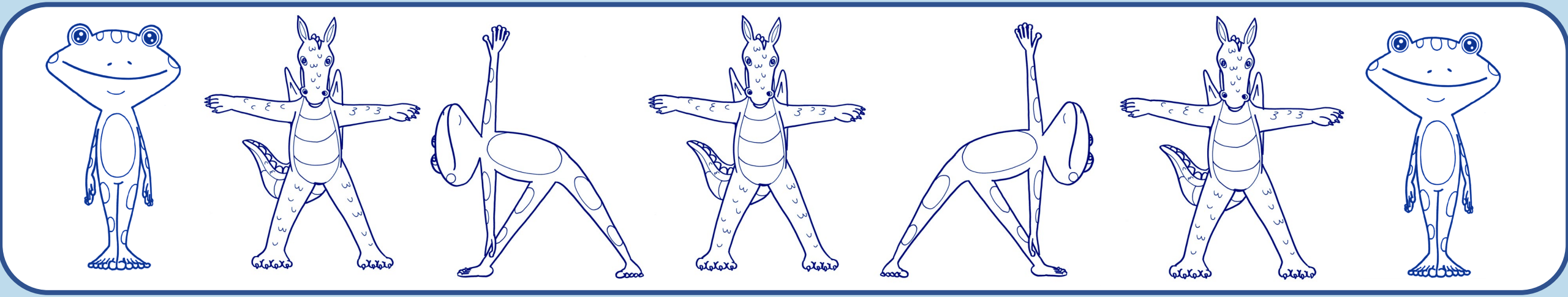
Mindful Movement: Mountain



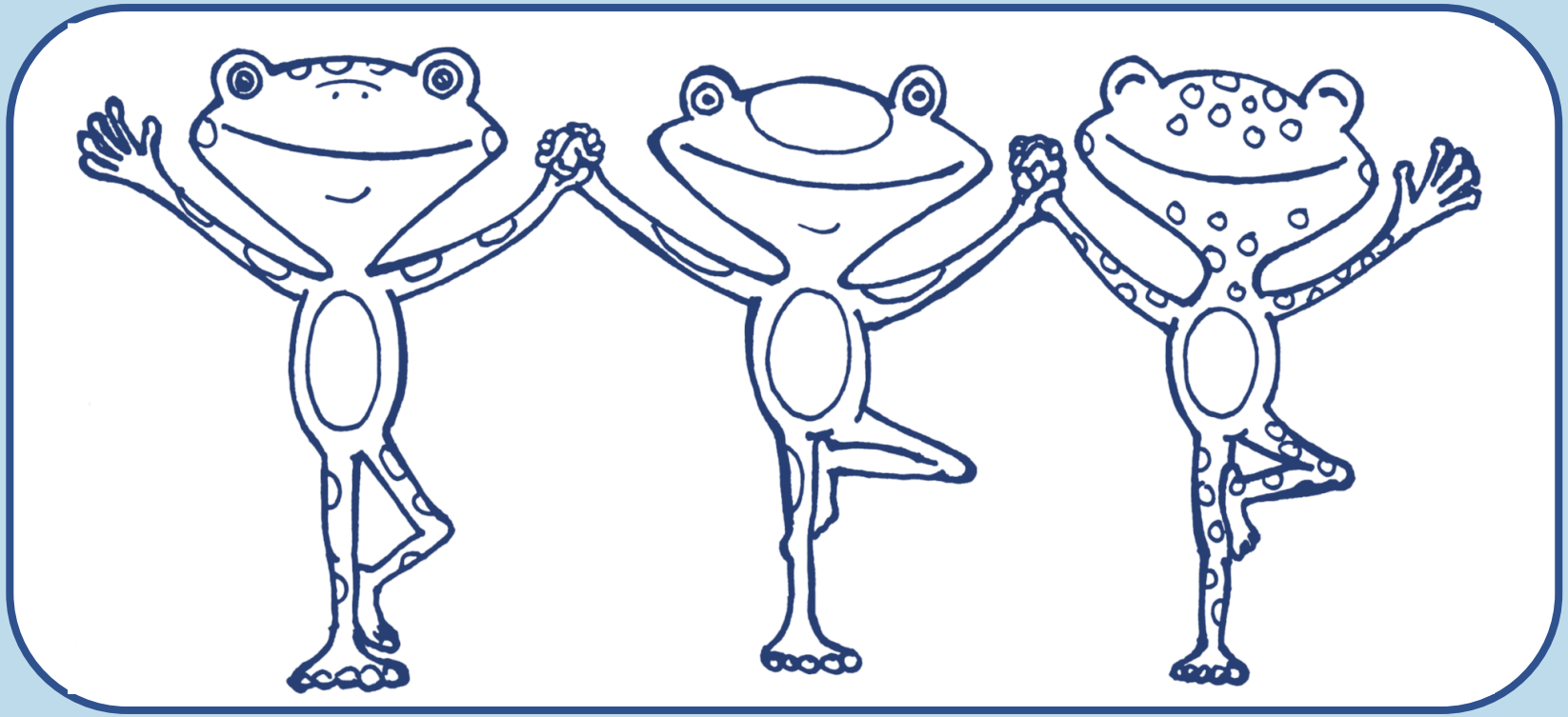
Mindful Movement: Half Opening Sequence A



Mindful Movement: Star into Triangle



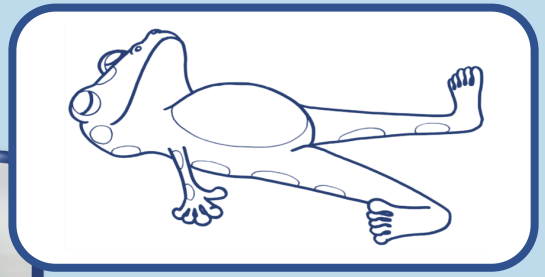
Mindful Movement: Tree or Forest



Mindful Movement: Seated Mountain

Engaging Activity: Guided Rest or 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.



Please take out your phone, laptop or notebook for a two-minute free write. The goal is to check in with yourself.

What is on your mind?

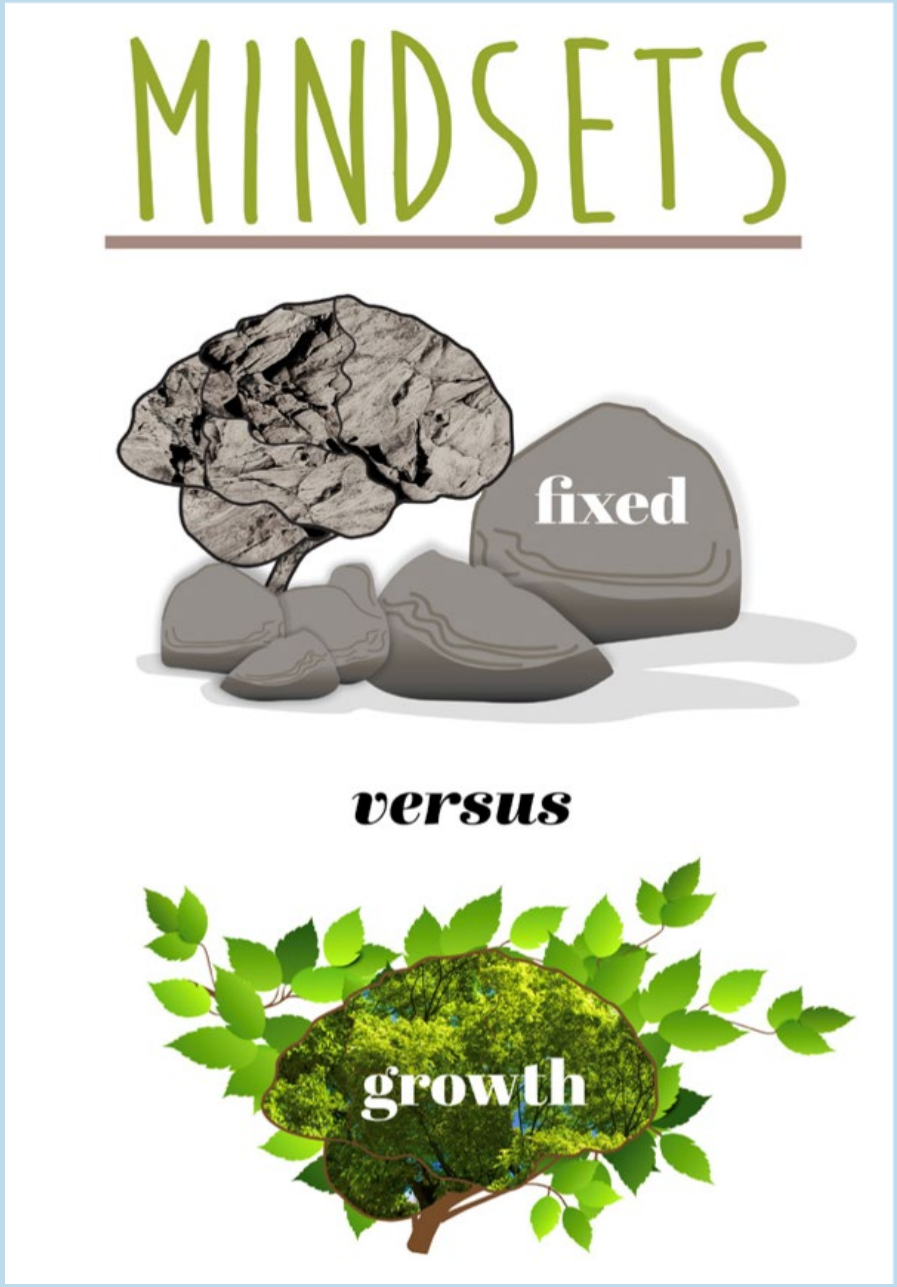
or

How are you feeling?

Neuroplasticity

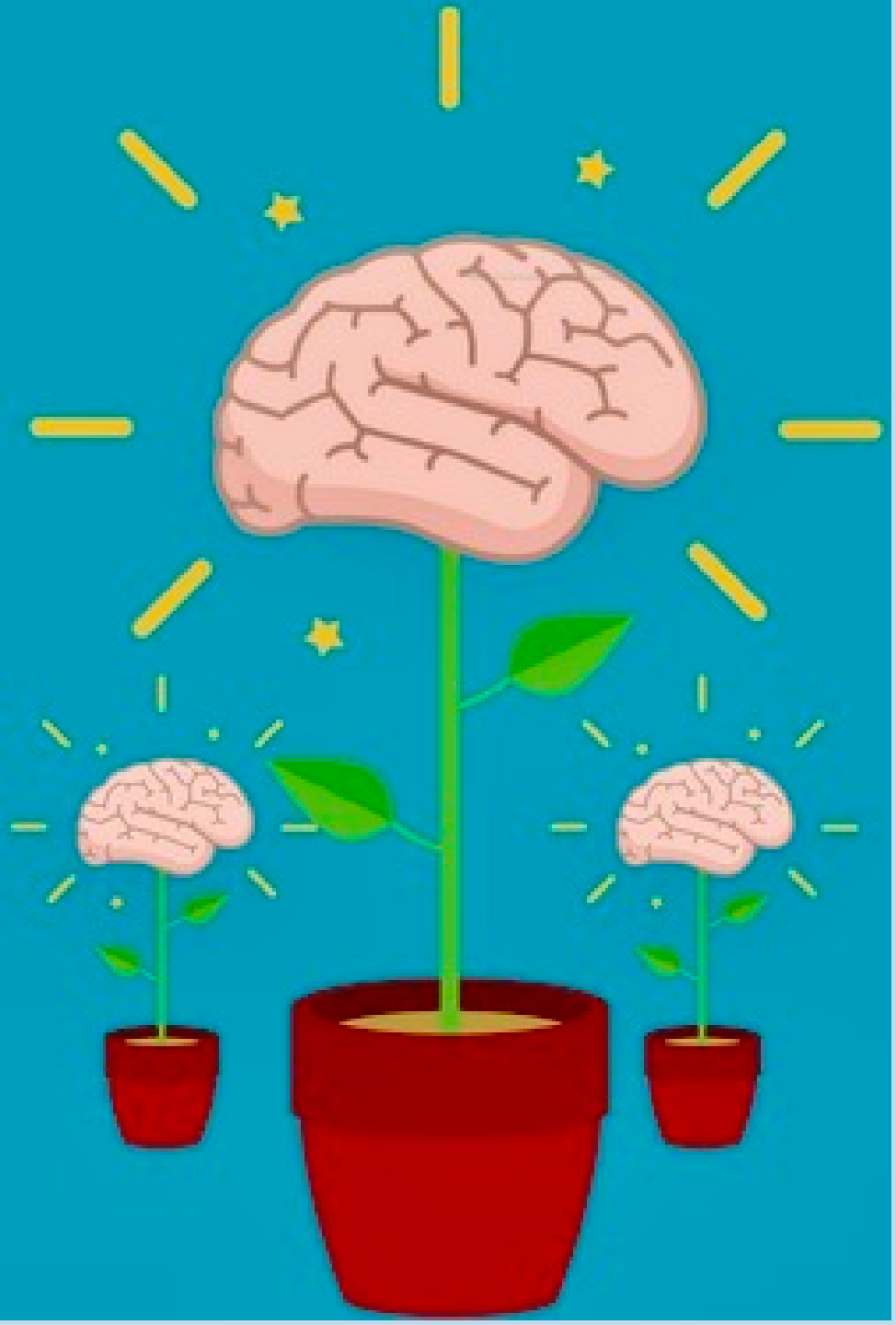
Stanford University professor and world-renowned psychologist, Carol Dweck, Ph.D, conducted a landmark study which found that when students are taught that intelligence is *not* fixed but is changeable, it made a dramatic impact on both their grades and morale.

https://uppercervicalfortmyers.com/health-conditions.html



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



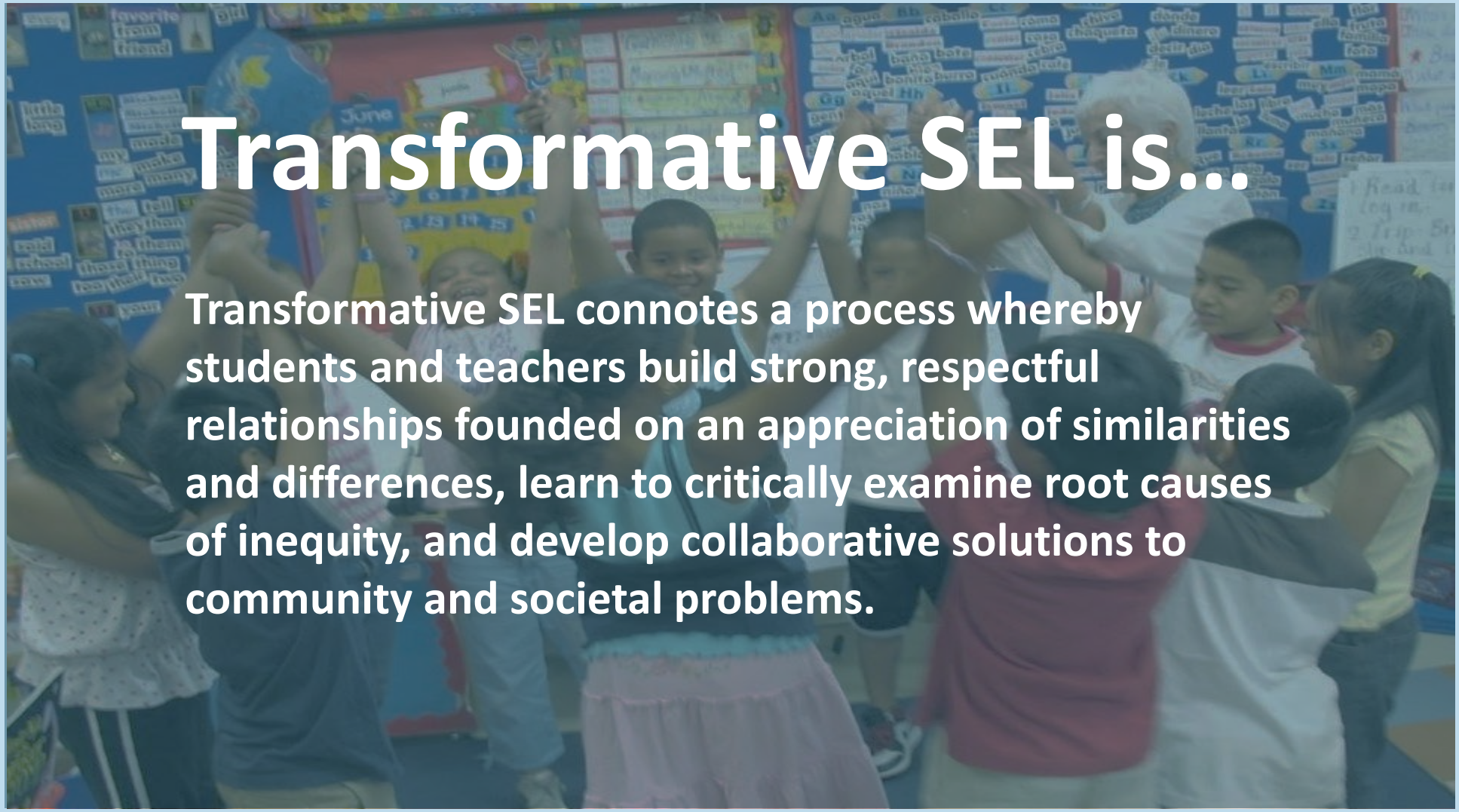
The Power To Grow and Stretch teaches the principle of resilience and cultivating a "growth mindset."

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://simpliv.wordpress.com/tag/online-learning/



Transformative SEL is…

Transformative SEL connotes a process whereby students and teachers build strong, respectful relationships founded on an appreciation of similarities and differences, learn to critically examine root causes of inequity, and develop collaborative solutions to community and societal problems.

https://measuringsel.casel.org/wp-content/uploads/2018/11/Framework_EquitySummary-.pdf

Transformative SEL & Self Management

Potential Concerns

- **Acculturative stress** occurs when low-income and/or immigrant youth encounter a cultural mismatch between the expectations and norms of their host (e.g., U.S.) and their home (heritage)
- **Racial/ethnic discrimination** (different from acculturative stress) has a number of interpersonal and institutional manifestations and is a **common experience for people of color**.
- Reactionary and self-defeating responses to cultural and racialized stress and micro-aggressions often result in **punishment** of students of color

Potential Opportunities

- The cultural and ethnic-racial identity (ERI) aspects of self-awareness could provide youth with more **adaptive coping strategies**
- Instead of becoming emotion-focused and disengaged, students could become more focused on **identifying situational or societal challenges and pursuing individual and collective solutions**

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

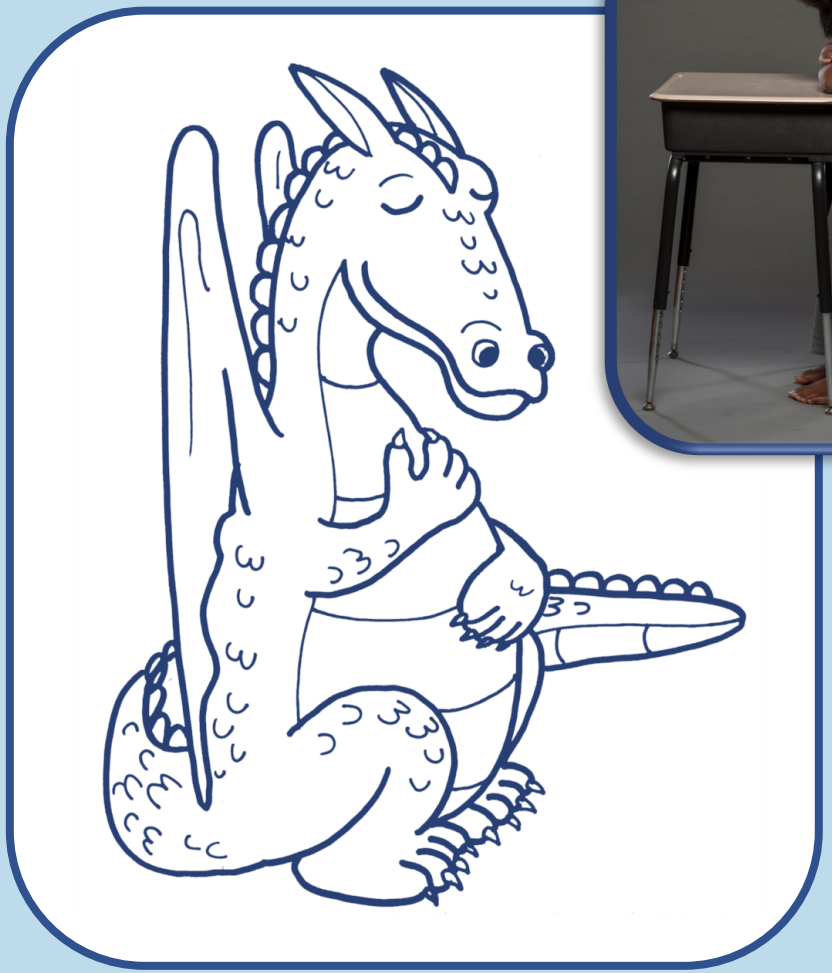
Pure Power

Grades 6-12

Unit 4

Power of a Balanced Life

Engaging Activity: Attitude of Gratitude



1. Sit comfortably, and if you like you can close your eyes.
2. Think of something/someone in your life for which you are thankful, or grateful. It can be anything or anyone!
3. Take a few moments to just appreciate this thing or person.
4. Now think of another thing or person for which you are grateful.
5. Take a few moments to appreciate this thing or person.
6. Notice how you feel.

**As you introduce this exercise, you might want to model an example for learners before bringing them through the exercise.*

**This is a nice exercise to take a few responses from learners after the exercise is finished.*

Brain Breaks Review Part 1

Breathe

- Mindful Minute
- Alternate Nostril Breathing
- Even In – Even Out

Move

- Seated Forward Bend
- Sunrise/Sunset
- Recharge Sequence
- Seated Figure Four

Rest

- Guided Rest or Body Scan

Brain Breaks Review Part 2

Breathe

- Ocean Breathing

Move

- Chair Eagle
- Brain Balance Sequence
- Movement Sequence

Rest

- One Minute Reflection
- Thumb Staring
- Attitude of Gratitude

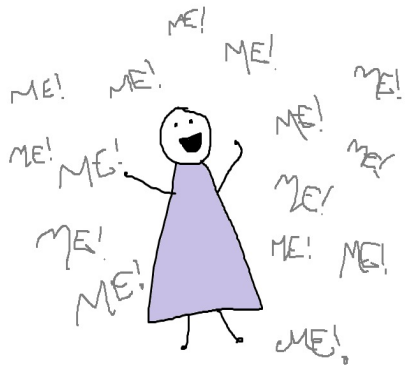
Takeaways

- 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.

Optimistic Closure: Synectics

"Self-Talk" is like…

1



2

3

4

5

Because…

Today's Reflection 1

Self:

Choose 2 Breathe, Move, and/or Rest Brain Breaks to practice independently. Note how you feel before (pre) and after (post) your practice.

Online Class:

Plan one class lesson and explicitly label each of the 3 signature practices within the full lesson.

Together in Class:

Map the "why" of Brain Breaks to your current scope and sequence.

Today's Reflection 2

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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Pure Community

Please Note: You will receive a follow-up email within 24 hours of this session. This serves as your confirmation of attendance.

Thank you for joining us!

Session 2, Part 1 & Part 2: The Neuroscience of Stress & Neuroplasticity

Trainers: Gill McClean & Erin Cooney

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Website: www.pureedgeinc.org

Email: getmoving@pureedgeinc.org