




Pure Community

Thank you for joining us!

Session: Integrating Pure Power: Middle School
Trainer: Anne Contreras, Director of Programs

Getting Started:

1. If you have any questions, please type them into the Q&A box! These will be answered throughout the webinar.
2. Since this is an experiential webinar, please wear comfortable clothing to move in, arrange your space to allow for movement and have a four-legged chair with no wheels, close by.
3. You will receive a follow-up email within 24 hours of this session. This serves as your confirmation of attendance. **You will not receive a certificate, it will just be the confirmation of attendance email.**




Follow us @pureedgeinc
 Website: www.pureedgeinc.org
 Email: getmoving@pureedgeinc.org



©2020 Pure Edge, Inc.

1



Welcoming Activity: Mindful Minute



- Start in Seated Mountain.
- Bring your attention to the present moment. We are going to start by taking a Mindful Minute.
- Start bringing your attention to the breath, noticing its qualities (fast, slow, warm, cool, shallow, deep...).
- Continue to focus your attention on the breath, and notice how you are feeling. Just notice.



©2020 Pure Edge, Inc.

2

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.



©2020 Pure Edge, Inc.

3

Introductions

Anne Contreras

MACP, MFTi #87444

Director of Programs - National Trainer

Doctoral Studies

International Psychology, Trauma-Systems

Focus: Global Crisis Informed Care



©2020 Pure Edge, Inc.

4

Learning Objectives

- Explore, Pure Power Curriculum: Peek Inside the Amazing Brain Mini-unit, Grades 6-12
- In-depth review of the neuroscience of stress, Lessons 1-4.
- View a sample of the first 4 weeks of implementation
- Experience Pure Edge Brain Breaks throughout

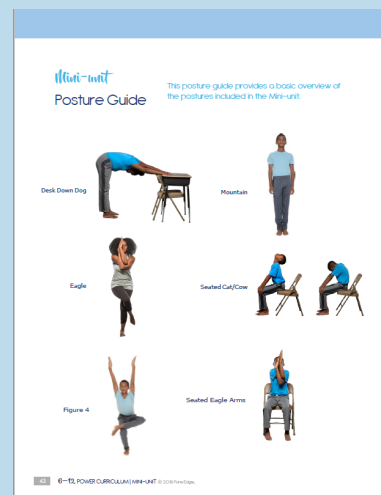


©2020 Pure Edge, Inc.

5

Peek Inside the Amazing Brain Mini-Unit

UNIT 3: Power of the Brain-Body Connection
Mini-Unit: The Neuroscience of Stress



©2020 Pure Edge, Inc.

6

Mini-unit: Neuroscience of Stress

Lesson 1	Power of the Brain-Body Connection
Lesson 2	Finding, Safety, Contentment and Connection
Lesson 3	Three Functions of the Nervous System
Lesson 4	Emotions and the Vagus Nerve



©2020 Pure Edge, Inc.

7

How to find Peek Inside the Amazing Brain Mini-unit on our website

Step 1 → Start at pureedgeinc.org

Step 2 → [Online Curriculum](#) [▶ Video](#) [Webinars](#) [Log Out](#) + **MENU**

Step 3 →



8

Engaging Activity: Grades 6–12, Lesson One

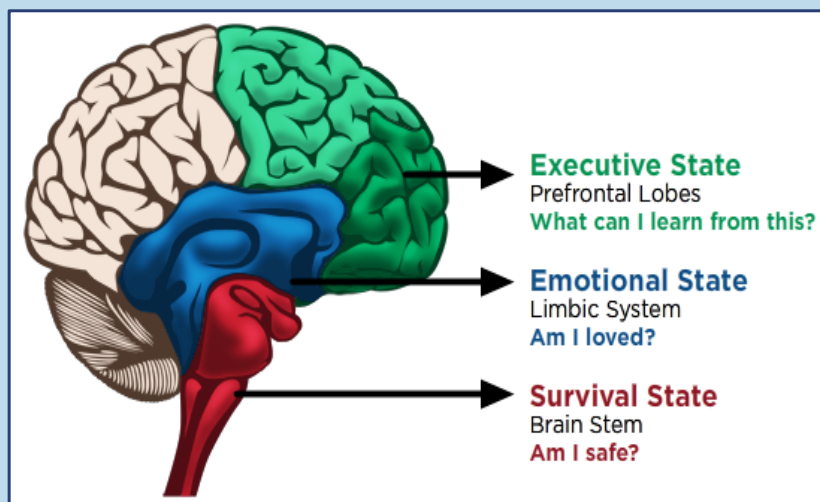
1. Mountain
2. Mountain - Chair 2x
3. Standing Slide Stretch
4. Tree (repeat on each leg)
5. Seated Cat/Cow
6. Seated Twist
7. Seated Mountain
8. Guided Rest



©2020 Pure Edge, Inc.

9

Lesson 1: Power of the Brain–Body Connection & Lesson 2: Finding Safety, Contentment, and Connection



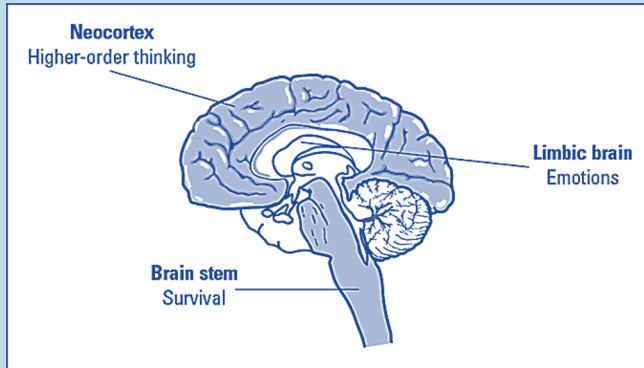
Source: Part One: Understanding Heuristics and Biases in Homeland Security: The Triune Brain, Medium June 7, 2016 by Angie English



©2020 Pure Edge, Inc.

10

Lesson 1: Power of the Brain-Body Connection & Lesson 2: Finding Safety, Contentment, and Connection



The **BRAIN**:

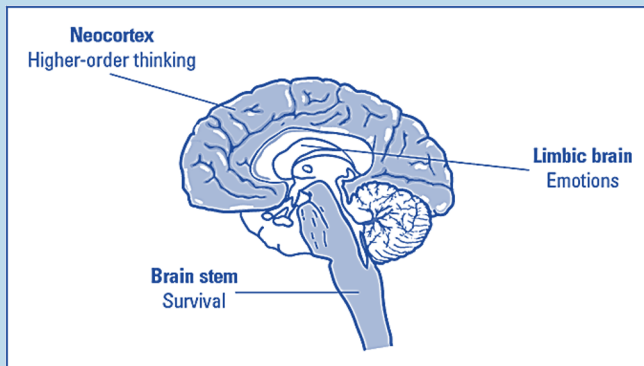
- **Vast network of cells** that remain in constant communication with body.
- **Regulates** all of our bodily processes and functions including the sense organs.
- **Gathers** information from the outside world.



Source: Figure 1.1 The Truine Brain Model in Brain Compatible Classroom by Laura Erlauer, ascd.org_2003 by Association for Supervision and Curriculum Development ©2020 Pure Edge, Inc.

11

Lesson 1: Power of the Brain-Body Connection & Lesson 2: Finding Safety, Contentment, and Connection



The **BRAIN STEM**:

- **Oldest part** of the brain.
- **Directs our bodily survival mechanisms:** such as heart rate, circulation, respiration digestion and reproduction.
- **We feel SAFE:** when these mechanisms are working properly.



Source: Figure 1.1 The Truine Brain Model in Brain Compatible Classroom by Laura Erlauer, ascd.org_2003 by Association for Supervision and Curriculum Development ©2020 Pure Edge, Inc.

12



Engaging Activity: Even In – Even Out



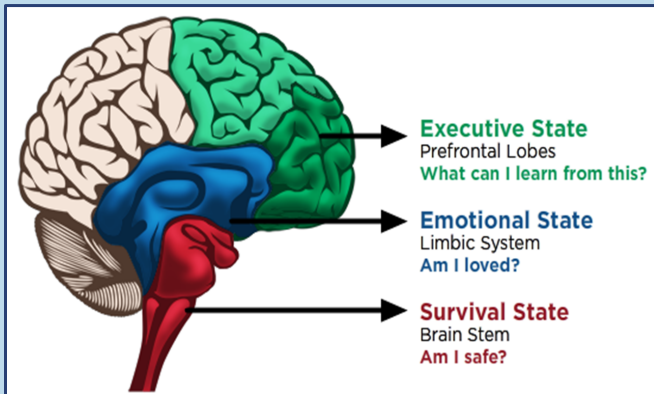
1. Start in Seated Mountain with a tall spine, relaxed shoulders, and eyes gently closed.
2. Breathe naturally through the nose.
3. We are going to focus on making our inhales and exhales even.
4. Inhale deeply through the nose and exhale through the mouth for a count of one.
5. On the next breath, let's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



©2020 Pure Edge, Inc.

13

Lesson 1: Power of the Brain–Body Connection & Lesson 2: Finding Safety, Contentment, and Connection



The **LIMBIC SYSTEM**

- **Second oldest part** of the brain.
- **Is a relay station:** for hunger, thirst, memory, fear and emotions.
- **We feel CONTENT:** when the limbic system is balanced.



Source: Part One: Understanding Heuristics and Biases in Homeland Security: The Triune Brain, Medium June 7, 2016 by Angie English

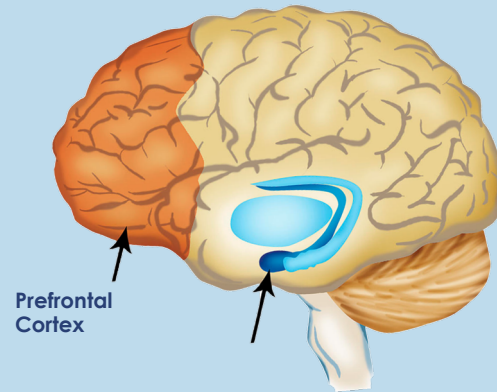
©2020 Pure Edge, Inc.

14

Lesson 1: Power of the Brain-Body Connection & Lesson 2: Finding Safety, Contentment, and Connection

The **PREFRONTAL CORTEX (PFC)**

- **Cortex** means bark – the cortex is the thin layer that makes up the out layer of the brain. ¹
- **Makes up the foreground of the CEREBRUM:** responsible for thinking, memory, reason, cooperative planning, social responsibility, empathy, reflection and language.
- **We feel CONNECTED:** when the PFC is functioning well.



1: Cortex, Merriam-Webster, <http://www.merriam-webster.com/dictionary/cortex>



©2020 Pure Edge, Inc.

15

Engaging Activity: Grades 6–12, Lesson Two

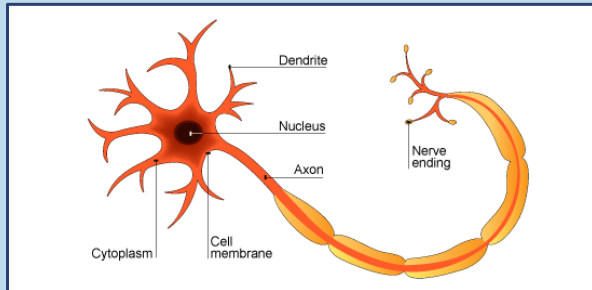
1. Mountain
2. Mountain - Chair x3
3. Standing Slide Stretch
4. **Standing Kite**
5. Tree (repeat on each leg)
6. **Seated Eagle Arms**
7. **Seated Sandwich**
8. Seated Cat/Cow
9. Seated Twist
10. Seated Mountain
11. Guided Rest



©2020 Pure Edge, Inc.

16

Lesson 3: Three Functions of the Nervous System



Our body's messengers, neurons link up with one another via **microscopic branches** called **axons**.²

NEURONS

- Millions of microscopic cells within the nervous system.
- When we are born, our brains have been formed with almost all neurons we will ever have, **but these neurons are not all connected..**
- **Neurons** forge connections through experience, repetition, and conditioning.¹

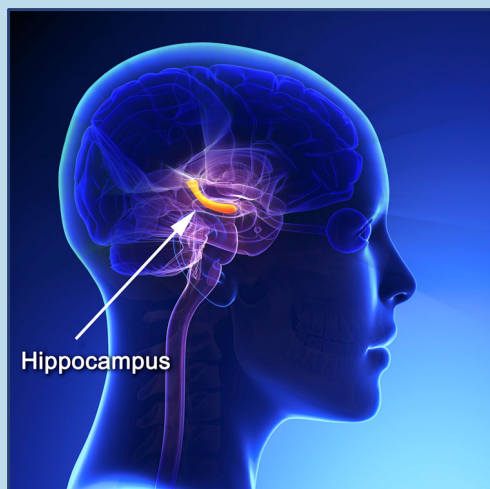
Source: Specialized cells – Mind42: Free online mind mapping software, www.mind42.com
 1: Eric H. Chudler, "Neuroscience for Kids," University of Washington, 2016, <https://faculty.washington.edu/chudler/cells.html>
 2: "Axon," Science Daily, <https://www.sciencedaily.com/terms/axon.htm>.



©2020 Pure Edge, Inc.

17

Lesson 3: Three Functions of the Nervous System



The HIPPOCAMPUS

The part of the brain where neurons are created into adulthood.

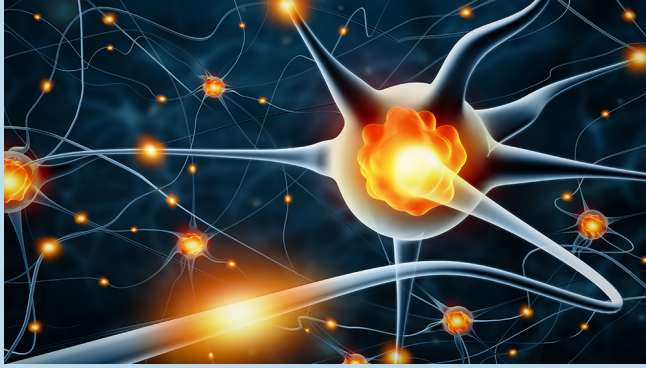
Source: Alzheimer's Disease Brain Protection Found, January 19, 2017 <https://www.healthcmi.com/>



©2020 Pure Edge, Inc.

18

Lesson 3: Three Functions of the Nervous System



NEUROGENESIS

The creation of new pathways.¹

- As we learn and grow, neurons connect with each other to create pathways.
- For example: Everything we have learned to do up until now required some degree of neurogenesis.

Source: What is neurogenesis? Definition, mechanisms and its role in brain plasticity August 24, 2018 <https://neurohacker.com/what-is-neurogenesis>
 1: Maurice A. Curtis, Monica Kam, and Richard L. Fall, "Neurogenesis in Humans," European Journal of Neuroscience, 2011.
http://www.culturacientifica.org/textosudcgenesis/neurogenesis/neurogenesis_humans.pdf

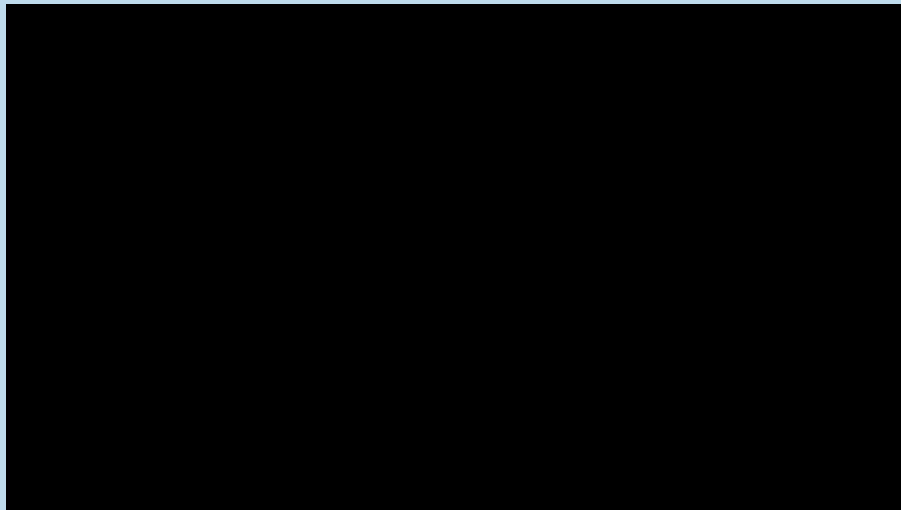


©2020 Pure Edge, Inc.

19



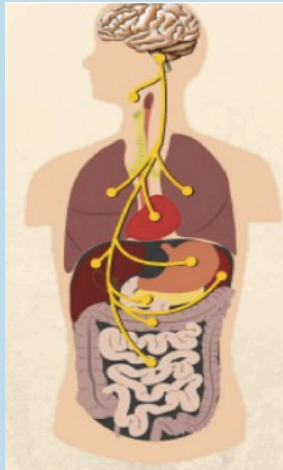
Engaging Activity: Anchor Breathing



©2020 Pure Edge, Inc.

20

Lesson 4: Emotions and the Vagus Nerve



THE VAGUS NERVE

<http://depressedisorder.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>



©2020 Pure Edge, Inc.

21

Neuroscience: Vagus Nerve

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

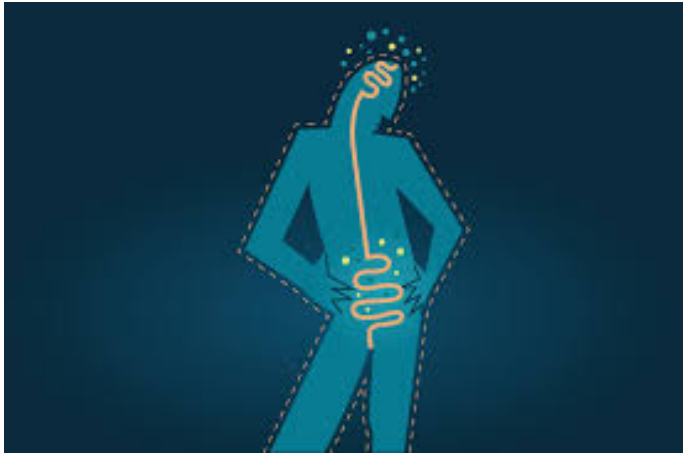


image: <https://naturalwestmichigan.com/toning-the-vagus-nerve/>



©2020 Pure Edge, Inc.

22




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 Rate¹

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




©2020 Pure Edge, Inc.

23


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.

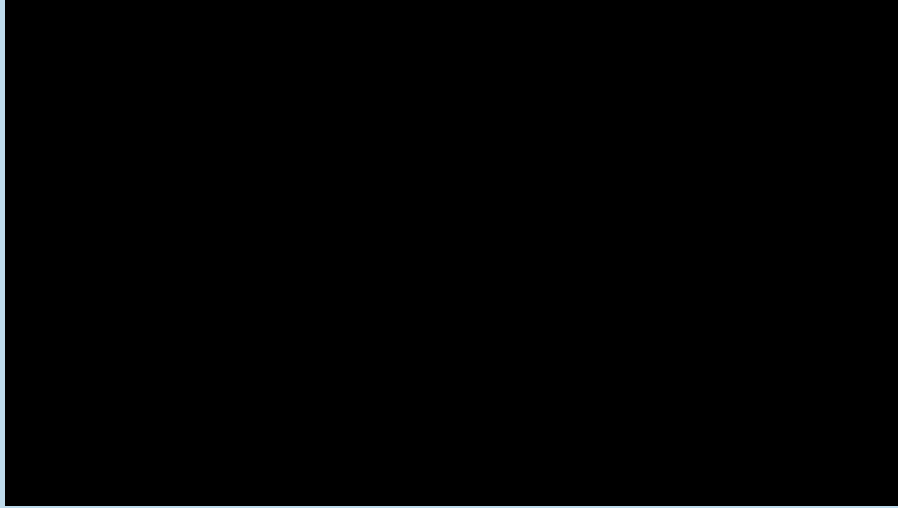


©2020 Pure Edge, Inc.

24



Engaging Activity: Chair Twist



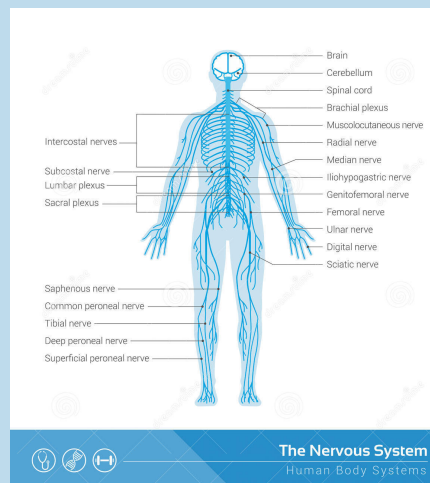
©2020 Pure Edge, Inc.

25

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



©2020 Pure Edge, Inc.

26

PERIPHERAL AUTONOMIC NERVOUS SYSTEM

PARASYMPATHETIC

- PUPIL CONSTRICTION
- STIMULATE SALIVA
- CONSTRUCTS BRONCHI
- SLOW HEART RATE
- STIMULATES PRODUCTION OF BILE
- STIMULATES DIGESTION
- INTESTINAL MUSCLE RELAXATION
- CAUSES AN ERECTION
- MAINTAINS HOMEOSTASIS

SYMPATHETIC

- DILATED PUPILS
- INHIBIT SALIVATION
- RELAXES BRONCH
- INCREASED HEARTBEAT
- SOWS DOWN DIGESTION
- STIMULATES GLUCOSE RELEASE
- REDUCES INTESTINAL MUSCLES
- ADRENALINE PRODUCTION
- REDUCES BLOOD FLOW
- MOBILIZES RESERVES UNDER STRESS

dreamstime.com ID 179551587 © Macrovector

Vagus Nerve

The Vagus nerve resides in the parasympathetic nervous system.

- **Sympathetic:** mobilizes you for action, aka the “on” switch.
- **Parasympathetic:** the “off” switch.

©2020 Pure Edge, Inc.

27

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>

©2020 Pure Edge, Inc.

28

Engaging Activity: Grades 6–12, Lesson Three

- | | |
|---------------------------|-------------------------|
| 1. Mountain | 9. Seated Sandwich |
| 2. Mountain - Chair x3 | 10. Seated Cat/Cow |
| 3. Standing Slide Stretch | 11. Seated Twist |
| 4. Standing Kite | 12. Seated Mountain |
| 5. Twisted Chair | 13. Guided Rest |
| 6. Figure 4 | 14. Mindfulness: |
| 7. Seated Figure 4 | Easy In – Extended Out |
| 8. Seated Eagle Arms | |



©2020 Pure Edge, Inc.

29



When to Incorporate Mindful Movement

- ❖ **Begin the school-year with ROUTINES and/or AGREEMENTS.**
- ❖ **At the start of class:**
 - Start of the session
 - During a virtual class as a break
 - For transitioning
- ❖ **At the end of class:**
 - Close out class
 - Rest to end the day



©2020 Pure Edge, Inc.

30



How to Teach Mindful Movement

1. **Focus on the breath:** Learning to connect breath and movement is a foundational part of Mindful Movement
2. **Bring awareness to bodily sensations/physical experience.** Ask: does your body feel different today than it did the last time we did this?
3. Include **Guided Rest** in every session.



©2020 Pure Edge, Inc.

31

Four Week – Implementation Guide

MONDAY	TUESDAY	WED <i>*Shorter class</i>	THURSDAY	FRIDAY <i>*Assemblies</i>
Introduce Breathing as part ROUTINES *Start/End of class	Breathing *Start/End of class	Introduce Rest	Start: Breathing End: Rest	Start: Breathing End: Rest
Start: Breathing Introduce: Mountain-Chair End: Rest	Start: Breathing Mountain-Chair, 2x End: Rest	Introduce Standing Side Stretch	Start: Breathing Mountain-Chair, 2x Standing Side Stretch End: Rest	Start: Breathing End: Rest
Start: Breathing Mountain-Chair, 2x Standing Side Stretch Introduce: Tree (each leg) End: Rest	Breathing Mountain-Chair, 2x Standing Side Stretch Tree End: Rest	Introduce Seated Cat/Cow	Breathing Mountain-Chair, 2x Standing Side Stretch Tree Seated Cat/Cow End: Rest	Breathing End: Rest
Breathing Mountain-Chair, 2x Standing Side Stretch Tree Seated Cat/Cow Introduce: Seated Twist End: Rest	Breathing Mountain-Chair, 2x Standing Side Stretch Tree Seated Cat/Cow Seated Twist End: Rest	Introduce Seated Mountain	Breathing Mountain-Chair, 2x Standing Side Stretch Tree Seated Cat/Cow Seated Twist Seated Mountain End: Rest	Breathing End: Rest



©2020 Pure Edge, Inc.

32

Engaging Activity: Grades 6–12, Lesson Four

- | | |
|---------------------------|--|
| 1. Mountain | 9. Seated Figure 4 |
| 2. Mountain - Chair x3 | 10. Seated Cat/Cow |
| 3. Standing Slide Stretch | 11. Seated Twist |
| 4. Standing Kite | 12. Seated Mountain |
| 5. Twisted Chair | 13. Guided Rest |
| 6. Figure 4 | 14. Mindfulness:
Easy In – Extended Out |
| 7. Eagle | |
| 8. Desk Down Dog | |



©2020 Pure Edge, Inc.

33



Engaging Activity: Guided Rest / Body Scan



©2020 Pure Edge, Inc.

34

Takeaways

- Peek Inside the Amazing Brain, Grades 6-12
- Lessons 1-4: Neuroscience of Stress
- Lessons 1-4: Added postures to Lesson 1 Sequence
- Review of Brain Breaks
- Implementation Sheet – first 4 weeks



©2020 Pure Edge, Inc.

35

Brain Breaks Review



Breathe

- Mindful Minute
- Even In – Even Out
- Anchor Breathing - Video



Move

- Chair Twist - Video
- Peek Inside the Amazing Brain, 6-12:
 - ✓ Lesson 1: Full Sequence
 - ✓ Lesson 2: Standing Kite, Seated Eagle Arms, Seated Sandwich
 - ✓ Lesson 3: Figure 4, Seated Figure 4
 - ✓ Lesson 4: Eagle, Desk Down Dog



Rest

- Guided Rest/Body Scan



©2020 Pure Edge, Inc.

36



37

Optimistic Closure: Name one thing you will **start with** for your next class from today, virtually or in person.




Photo: Juan Monino

38



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: Integrating Pure Power: Middle School
Trainer: Anne Contreras, Director of Programs



Follow us @pureedgeinc
Website: www.pureedgeinc.org
Email: getmoving@pureedgeinc.org



©2020 Pure Edge, Inc.