

OF EDUCATIONAL NEUROSCIENCE SCOPE AND SEQUENCE

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Version 1.2

180 DAYS OF EDUCATIONAL NEUROSCIENCE: SCOPE AND SEQUENCE



The 180 days of Applied Educational Neuroscience – Scope and Sequence toolkit is for educators, therapists, counselors, social workers, mental health practitioners and students as we explore and apply the emergent social and affective neurosciences through the Applied Educational Neuroscience framework and the Polyvagal Theory into our school and community cultures through procedures, transitions, rituals and routines.

Although the recommended teaching time for each lesson is between 20-30 minutes, it is possible to progress at a slower pace and use 2-3 lessons a week to discuss and reflect with students for five to ten minutes. These lessons can occur during morning meetings, closing circles, or any open community building routine that exists or needs to be created based on the needs of students and staff. These mini-lessons are as much for our staff as they are for students, providing a co-regulatory and embodied experience when we learn and share together. These lessons can be shared one on one, small group, or whole class and are intended to help our children, youth and adults access the cortex, while learning more about their nervous systems and why they feel the way they feel.

The lessons are laid out in a manner that builds on previous understanding and knowledge. The guiding questions, practices and resources are intended to be a guide and any modifications should be made to meet the needs of diverse learners. The hope is that each educator will bring a personal touch to each conversation, each year with uniquely different groups of students exploring the nervous system that drives everything we do in school and in life! In order to make this as accessible as possible for educators and classroom teachers, teaching time, preparation, a lesson overview and differentiation strategies are already embedded into each lesson. We hope this toolkit will also be a resource for parents as well, so that we begin to build bridges between education, our homes and the larger community.

OUTCOMES FOR STAFF AND STUDENTS

Students, educators, and mental health practitioners will discover through discussion and practice what lies beneath behaviors as we explore the nervous system and its hierarchical states impacted by toxic levels of stress and accumulating adversity in the brain and body. (How can we weave this scope and sequence into our content, such as reading, math, social sciences, and language arts?) (How can we modify this scope and sequence for our EL's?)

Students, educators, and mental health practitioners will identify practices that feel regulating and anchoring as they begin to access the cortex where we learn, emotionally regulate, pay attention, focus and hold the potential for strong working memory.

Students, educators, and mental health practitioners will begin to meet the needs of diverse learners through a variety of resources that address nervous system states and the connection to sensations, feelings, and behaviors. These resources and practices tap into our identities, interests, passions and emotional and social growth and development.

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UPDATES & REVISIONS

We will continue to augment this scope and sequence each year with the applications of the most recent social, relational, and cognitive neurosciences. If significant updates are made to the current scope and sequence, you will be notified via email (the email you used to purchase) with instructions for downloading the updated document. We will also be providing feedback surveys so we can continue to meet the needs of educators and students. Should you find any issues within this document, please submit suggestions to resources@revelationsineducation.com



"This scope and sequence is not a program with a script. It is intended to be integrated each day as a part of our procedures and transitions, whether that is bell work, morning meetings, advisory classes, or when needed during transitions or difficult days. It is a supportive resource to prepare the nervous system for learning by engaging with one another through brainaligned practices that are presented as mini-lessons with differentiated strategies for all ages."

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AN INTRODUCTION VIDEO MESSAGE

FROM DR. LORI DESAUTELS

Watch Zoom Meeting: Group meeting with current users of 180 Days



TABLE OF CONTENTS: Teaching Nervous System Aligned Content for Engagement, Relationship and Regulation

The Brain's Neuroanatomy The Autonomic Nervous System ----- Inside Our Bodies ----- Outside Our Bodies **Nervous System Regulators** ----- 90-Second Rule **Focused Attention Practices** Play Breath Rhythm **Emotions And The Brain Mirror Neurons** Senses And The Brain

Stress And The Brain

Regulation

Energizing Focus Attention Practices

Neuroplasticity

The Adolescent Brain

Memory

Thoughts

Emotional Regulation

The Social Brain

Empathy

Engagement

Multiple Preferences For Our Nervous System

The Healthy Brain

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What do you know about the brain?

What is the brain similar to?

TEACHING TIME:

Approximately 20-30 minutes

MATERIALS/PREP:

- Start creating "The Brain" anchor chart (this will be added to throughout the next several lessons)
- Create brain statements: "The brain is like..."
- 3-pound weight
- Jell-O
- Jug of water

TASK/LESSON:

Create brainstorm lists in small groups so students can work together with guessing what the brain is like.

After some guessing and wondering, provide them with a few objects like a three-pound weight, tofu, Jell-O, a jug of water and/or some type of fat.

Discuss how the brain shares many of the characteristics from the objects.

DIFFERENTIATION STRATEGIES:

Allow extra wait time before asking students to respond and make connections to the objects

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: AND SECONDARY

- <u>Cool Kid Brain Facts</u> or <u>Printable Article</u>
- <u>Science Kids Fun Brain Facts</u> or <u>Printable</u>
 <u>Article</u>

RESOURCES FOR TEACHERS:

ALL ELEMENTARY:

- Love Your Brain Powerpoint
- Love Your Brain Jeopardy Game

ALL ELEMENTARY: AND SECONDARY

- <u>21 Facts About the Brain: Healthline</u> or *Printable Article*
- Welcome to the Brain Bank: Harvard Brain Bank | National Geographic

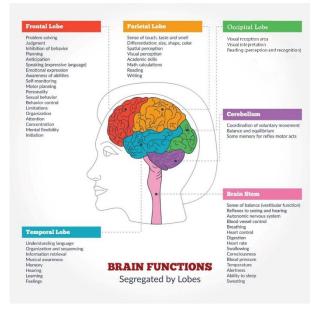


IMAGE CREDIT: SUNSHINE AR

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What do you know about the brain?

What is the brain similar to?

Can you think of times or events during the day when you are activating your limbic system? Maybe those times are intentional or maybe those times occur without your awareness?

TEACHING TIME:

Approximately 20-30 minutes

MATERIALS/PREP:

- "The Brain" anchor chart
- Create a list of student noticings on the board or on an anchor chart to reflect on through the next several days.

Discussion Prompts:

- What do you notice about the brain?
- What do you wonder?
- What are you curious or excited to learn about the brain?

TASK/LESSON:

- Watch, discuss, and reflect on the videos using the discussion prompts
- Use turn and talk/partner talk strategies to have students share with a peer before sharing out loud

DIFFERENTIATION STRATEGIES:

- Preview the text or difficult vocabulary for English Language Learners
- Make real world connections to explain what it means to "notice" or "wonder" about something
- Provide sentence stems for students:
 - o One thing I notice about the brain is...
 - o One thing I wonder is...
 - \circ One thing I am curious/excited to learn is...

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 2-6

• How Your Brain Works

SECONDARY: GRADES 7 - 12

- How the Brain Works (Sentis)
- Emotions and the Brain: What is the limbic system?
- BrainWorks: Neuroscience for Kids

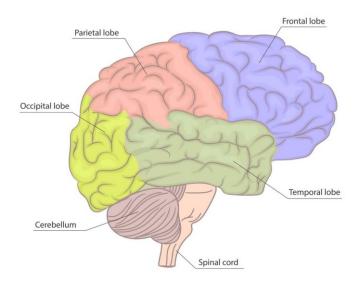


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TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What do you know about the brain?

What is the brain similar to?

TEACHING TIME:

Approximately 20-30 minutes

MATERIALS/PREP:

- Decide where to break the text (from the resource books listed) apart for a two-day read aloud, put post-it's in strategic stopping points
- Find and post any difficult, tier 3/domain specific vocabulary on a whiteboard or anchor chart to supplement in the video

TASK/LESSON:

- Read Aloud and engage in discussion, questioning, wondering, all while adding new background understanding to learning.
- Explain that the text has a lot of new vocabulary, and if we don't understand it all it's okay
- We will watch half today, and discuss what we learned, and then finish in the next lesson

DIFFERENTIATION STRATEGIES:

- Preview the text or difficult vocabulary for English Language Learners
- Allow extra wait time before asking students to respond to questions about the video

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 1-3

• The Brain is Kind of a Big Deal by Nick Seluk

ELEMENTARY: GRADES 2-6

 Your Fantastic Elastic Brain by JoAnn Deak, Ph.D. (versions available on YouTube)

SECONDARY: GRADES 7 - 12

- The Brain by Seymour Simon (versions available on YouTube)
- Interactive brain model: 3D Brain

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What do you know about the brain?

What is the brain similar to?

TEACHING TIME:

Approximately 10-15 minutes

MATERIALS/PREP:

"The Brain" anchor chart (students will add ideas to this after the read aloud based on what was learned)

TASK/LESSON:

Finish reading the text aloud that was started the previous day. Engage in a discussion, questioning, wondering, all while adding new background understanding to learning and add to "The Brain" anchor chart

DIFFERENTIATION STRATEGIES:

Preview the text or difficult vocabulary for English Language Learners

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 1-3

• The Brain is Kind of a Big Deal by Nick Seluk

ELEMENTARY: GRADES 2-6

 Your Fantastic Elastic Brain, By: JoAnn Deak, Ph. D (versions available on YouTube)

SECONDARY: GRADES 7 - 12

• The Brain by Seymour Simon (versions available on YouTube)

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What do you know about the brain?

What is the brain similar to?

TEACHING TIME:

Approximately 20-30 minutes

MATERIALS/PREP:

Printable blank brain (students will fill this in and label it during the lesson)

TASK/LESSON:

- Show unlabeled brain and ask students what they notice
- Explain that today we will practice labeling the parts of the brain with words or pictures
- Pass out the brain papers and have students try to label the parts

ASK:

- What have you done over the last 24 hours (or one day)?
- Which part of your brain did this happen in? How do you know?
- Which part of your brain did this impact? How do you know?

DIFFERENTIATION STRATEGIES:

- Preview scientific/brain vocabulary and practice clapping it out for pronunciation
- Provide a word bank or vocabulary chart for students to refer to when filling in the brain
- Students who are unable to write words can use pictures to label

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND SECONDARY

<u>Printable Brains (clipart)</u>
 choose which is best based on your students

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What do you know about the brain?

TEACHING TIME:

Approximately 20-40 minutes

MATERIALS/PREP:

- Brain Jeopardy (project the website on a whiteboard to facilitate the game)
- "The Brain" anchor chart (from previous lessons)
- List expectations for playing the game Examples may include:
 - Celebrate each other's success/support each other
 - Give people time to think
 - Let people have their turn
 - Mistakes are okay

TASK/LESSON:

- Pre-Assessment: Brain Jeopardy Online Activity: use this as a formative assessment to gauge how much students know, will be given again on Day 10
- Review or co-create expectations for playing the game as a group
- Remind students to use the anchor chart as a tool while we play
- Complete the activity with the whole group and discuss as you work through the questions.
- At the end, note your score for later comparison to post assessment.

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND SECONDARY

- PLAY Online: Brain Aligned Jeopardy Game
- Love Your Brain Jeopardy Game

- Extra think time before students answer
- Sentence stems for students
- "What is..._ insert answer..."
- Encourage students to refer to "The Brain" anchor chart

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What do you know about the brain?

TEACHING TIME:

Approximately 20 -25 minutes

MATERIALS/PREP:

- Anchor Chart with pre-labeled: amygdala, prefrontal cortex, hippocampus
- Predetermined "Brain Area" in the classroom

DISCUSSION PROMPTS:

 How could using this hand model be helpful to individuals, the whole group, and in other environments or places in our lives?

TASK/LESSON:

- Show & discuss "Hand Model of the Brain" video
- Practice creating and identifying parts of the brain with hand models.
- Create an anchor chart identifying amygdala, prefrontal cortex, and hippocampus.
- Teachers and students can begin to create a
 Brain Area in the classroom. Begin discussion
 with your students where in your classroom a
 "Brain Area" could live. Explain that this will be a
 space where new knowledge, ideas, and
 questions about the brain will live

DIFFERENTIATION STRATEGIES:

Preview new vocabulary with students and clap-itout for movement modality and pronunciation: amygdala, prefrontal cortex, hippocampus

Add visuals to help explain their definitions

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY KINDERGARTEN+

 HOW TO Teach Brain in the Palm of Hand to Kids

ELEMENTARY 2+ AND SECONDARY

- "The Three Main Parts of Your Brain"
- Hand Model of Brain Week 8

ALL SECONDARY

Areas of the brain

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What does the brain control?

How often do you think about your brain as you feel, think and experience the world around you?

TEACHING TIME:

Approximately 20 -25 minutes

MATERIALS/PREP:

Discussion prompts:

- What new learning did we take away?
- What are the names of these parts of the brain?

TASK/LESSON:

- Watch and discuss areas of the brain from the Sentis video from resources.
- After watching, discuss the discussion prompts
- Add any new learning to any relevant anchor charts from previous lessons (this could be news words/labels, or pictures)

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY GRADES 4 AND UP & SECONDARY

Areas of the brain

ALL SECONDARY



TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What do you want to know about the brain?

TEACHING TIME:

Approximately 20 -25 minutes

MATERIALS/PREP:

- KWL chart written on a chart or whiteboard (Know, Want to Know, Learned)
- This will be filled in throughout the lesson
- Chart Paper or wall space
- Display individual or group questions to return to in the near future. Use these guiding questions to support curriculum, morning meeting, advisory, discussion, and/or relationship connection.

TASK/LESSON:

Spend time reviewing and looking over notes from the week and then create a KWL chart for future learning opportunities, relevancy, relationships, and engagement.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud
- Preview any new vocabulary and provide visuals

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

• Brain Stem - Week 3

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADES 4 AND UP & SECONDARY

The Brain

NOTE: this video is approximately 14 minutes. Consider chunking it into smaller, more appropriate bits for different learners based on attention span

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What do you know about the brain?

TEACHING TIME:

Approximately 20 -25 minutes

MATERIALS/PREP:

Brain Jeopardy

TASK/LESSON:

Post Assessment: Brain Jeopardy Online Activity

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary (danger/unsafe, sense/sensation, survival, react, experiences) as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- extra processing time as needed

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND SECONDARY

• PLAY: Brain Aligned Jeopardy Game

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What three areas of the brain will we be focusing on when discussing and learning about educational neuroscience?

TEACHING TIME:

Approximately 20 -25 minutes

MATERIALS/PREP:

- Video: What are parts of the brain?
- Vocabulary & visuals (for word wall): prefrontal cortex. hippocampus, amygdala

TASK/LESSON:

We have spent time talking about what the brain is like and introducing the areas of the brain. This week we will look closely at the prefrontal cortex, hippocampus and amygdala. Today we are going to spend time reviewing, reflecting, and connecting to what we will be learning throughout this week.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud
- Preview any new vocabulary and provide visuals
- Real world application and discussion of neuroanatomy concepts
- Concrete references and movement incorporated

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

<u>The Neuroanatomical Transformation of the Teenage</u>
<u>Brain:</u> Jill Bolte Taylor at TEDxYouth@Indianapolis
(*Time marker: 0:00-2:00*)

- What is neurogenesis and why is this a superpower?
- What is neuroplasticity and what does Dr.
 Taylor mean that the brain we wake up with will not be the same brain we go to bed with at night?
- What is mindfulness?
- Can you think of times when "what you learned or experienced" changed your entire day, week, or there was a change that lasted a long time?
- When you are mindful with your thoughts, what does that look like to you? In other words, what are you doing with your thoughts?

ELEMENTARY (GRADES 4 AND UP) & SECONDARY

"What Are the Main Parts of the Brain?"
 (Time Marker: 6:18)

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What is the prefrontal cortex?

TEACHING TIME:

Approximately 15 - 25 minutes *(depending on discussion)*

MATERIALS/PREP:

- "Brain" anchor chart with functions labeled clearly
- Executive functions image: reflect throughout the day... when we are using prefrontal cortex
- Vocabulary & visuals (for word wall): prefrontal cortex. hippocampus, amygdala

TASK/LESSON:

LESSON FOCUS: Prefrontal Cortex

Where we do life (cognitive, emotional, behavioral functioning). The prefrontal cortex goes offline when faced with danger (fear or stress). The prefrontal cortex communicates through words, spoken language. Teach students that their prefrontal cortex is where decision making happens - we want to be in our prefrontal cortex at school! Teach students to put their hands over their forehead to find their prefrontal cortex. Add any vocabulary to the word wall to refer back to throughout learning.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud
- Preview any new vocabulary and provide visuals
- Real world application and discussion of neuroanatomy concepts
- Concrete references and movement incorporated

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

 A Guide to Executive Function - Center on the Developing Child at Harvard University

ELEMENTARY: GRADES 4 AND UP & SECONDARY

- "Executive Function Skills"
- 2-Minute Neuroscience: Prefrontal Cortex

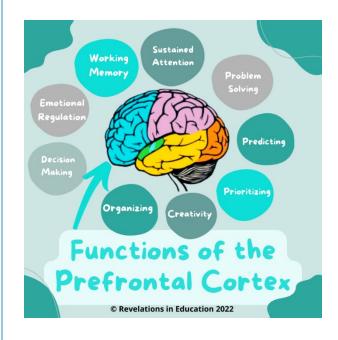
RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 2-6

 "Executive Functioning for Kids" (time marker- 5:00)

SECONDARY: 7 - 12

 What is "Executive Functioning?" (time_marker - 1:30)



TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What is the prefrontal cortex?

TEACHING TIME:

Approximately 15-25 minutes (depending on discussion)

MATERIALS/PREP:

- "Brain" anchor chart w/functions labeled clearly
- Executive functions image: reflect throughout the day... when we are using prefrontal cortex
- Vocabulary & visuals (for word wall): prefrontal cortex. hippocampus, amygdala

TASK/LESSON:

LESSON FOCUS: Prefrontal Cortex

- Review the anchor chart and add new learning from today's discussion.
- Where we do life (cognitive, emotional, behavioral functioning). The prefrontal cortex goes offline when faced with danger (fear or stress). The prefrontal cortex communicates through words, spoken language. Teach students that their prefrontal cortex is where decision making happens - we want to be in our prefrontal cortex at school! Teach students to put their hands over their forehead to find their prefrontal cortex.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud
- Preview any new vocabulary and provide visuals
- Real world application and discussion of neuroanatomy concepts
- Concrete references and movement incorporated

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 4 AND UP & SECONDARY

• "Executive Function Skills"

RESOURCES FOR TEACHERS:

<u>Types of Executive Functioning:</u>
 <u>Understood.org or Printable Article</u>

RESOURCES FOR TEACHERS AND STUDENTS:

- <u>'The Adventures of You' Part 1</u> Executive Function Guide
- 'The Adventures of You' Part 2 Executive Function Guide
- <u>'The Adventures of You' Part 3</u> Executive Function Guide
- The Neuroanatomical Transformation of the Teenage Brain: Jill Bolte Taylor at TEDxYouth@Indianapolis (Time marker 2:00-4:00)

We run three types of circuitry!

- We think a thought
- We have an emotional response
- We have a physiological reaction

THIS IS THE 90 SECOND RULE!

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What is the hippocampus?

TEACHING TIME:

Approximately 20 - 25 minutes

MATERIALS/PREP:

- "Brain" anchor chart with functions labeled clearly
- Vocabulary & visuals (for word wall): prefrontal cortex. hippocampus, amygdala, memory
- Chart paper
- Discussion prompts & Sentence Stem:
- Why is memory important for learning at school? (Memory is important because... or If we didn't remember things, we)

TASK/LESSON:

LESSON FOCUS: Hippocampus

Highlight the hippocampus on the anchor chart and its function.

Define the word "memory" for students

Formation of new memories and learning emotions. Chronic stress causes increased levels of cortisol and adrenaline that can damage and kill cells in the hippocampus.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud (see sentence stems in prep)
- Preview any new vocabulary and provide visuals
- Real world application and discussion of neuroanatomy concepts

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES K-4

- Brain Song for Hippocampus
- How are Memories Stored and Retrieved?
 Curious Questions with Answers | Educational
 Videos by Mocomi

ELEMENTARY: GRADES 5 AND UP & SECONDARY

• <u>2-Minute Neuroscience: Hippocampus</u>

RESOURCES FOR TEACHERS AND STUDENTS:

ALL SECONDARY

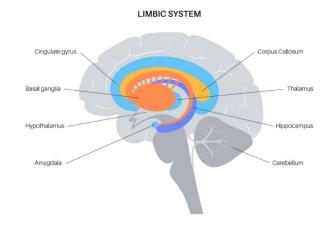


IMAGE CREDIT- PIKOVIT44

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What is the hippocampus?

What happened when the hippocampus was removed during the surgery?

How did this affect his memory?

We know that stress can affect what we can remember! Has this ever happened to you before a test, performance, sporting event, or when you were worried and anxious or very upset about something that had happened?

TEACHING TIME:

Approximately 20 - 25 minutes

MATERIALS/PREP:

- "Brain" anchor chart with functions labeled clearly
- Vocabulary & visuals (for word wall): prefrontal cortex. hippocampus, amygdala, memory
- Chart paper
- Discussion prompts & Sentence Stem:
 Why is memory important for learning at school? (Memory is important because... or If we didn't remember things, we)

TASK/LESSON:

Lesson Focus: Hippocampus

Formation of new memories and learning emotions. Chronic stress causes increased levels of cortisol and adrenaline that can damage and kill cells in the hippocampus.

Review the anchor chart and add new learning from today's discussion.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud (see sentence stems in prep)
- Preview any new vocabulary and provide visuals
- Real world application and discussion of neuroanatomy concepts

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 4 AND UP & SECONDARY

• "Meet the Hippocampus": KidsDiscover or Printable Article

RESOURCES FOR TEACHERS:

- <u>Brain Made Simple: Hippocampus</u> or <u>Printable Article</u>
- What Happens When We Remove the Hippocampus?
- Does stress affect your memory? Elizabeth Cox

Scenario Brain Development

- When a young child faces emotional adversity or stressors, cells in the brain release a hormone that actually shrinks the size of the brain's developing hippocampi altering the child's ability to process emotion, memory and manage stress!
- The higher the ACE, the smaller the cerebral gray matter or brain volume in the PFC, amygdala and sensory association cortices and cerebellum. Frontal regions are also underactive making individuals hyperactive to very small stressors.



2019 Revelations in Education

TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTIONS:

What is the amygdala?

Our amygdala holds all of our emotions, but it is our alarm center because it most importantly protects us!

Can you think of a time when you felt your body react with alarm? What did you notice?

TEACHING TIME:

Approximately 20 - 25 minutes

MATERIALS/PREP:

- Bring in almonds or small rocks in the shape of the amygdala to support discussion of amygdala.
- "Brain" anchor chart with functions labeled clearly
- Vocabulary & visuals (for word wall): amygdala

TASK/LESSON:

Lesson focus: Amygdala: Day 1

The amygdala is the alarm center for the brain. Reference almond for the size but explain even though it is small, it is a MIGHTY part of our brain and can make us act in BIG ways! It is the emotional station for our brain and it can make our prefrontal cortex go offline and disrupt our ability to think. The amygdala communicates through emotions. When the amygdala is firing, we need to regulate/calm. Label the amygdala on the anchor chart and its function.

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide sentence stems to help process thinking out loud (see sentence stems in prep)
- Preview any new vocabulary and provide visuals

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

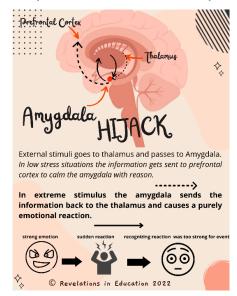
- Poppy and the Overactive Amygdala_by Holly Rae Provan
- Amygdala week 7

RESOURCES FOR STUDENTS & TEACHERS:

ELEMENTARY: GRADES 5 AND UP & ALL SECONDARY

- "The Science of Anger" (time marker-2:28)
- ▲ trigger warning cartoon violence
- 2-Minute Neuroscience: Amygdala

ALL SECONDARY (PRINT AND DISPLAY AS NEEDED)



TOPIC:

THE BRAIN'S NEUROANATOMY

GUIDING QUESTION:

What is the amygdala?

TEACHING TIME:

Approximately 10 - 15 minutes

MATERIALS/PREP:

- Bring in almonds or small rocks in the shape of the amygdala to support discussion of amygdala.
- "Brain" anchor chart with functions labeled clearly
- Vocabulary & visuals (for word wall)

Discussion Questions:

- What does it look like when you have big emotions?
- What does it look like when your amygdala is active? What do your choices look like? Is it easy to make helpful choices?
- Can you think of a time when you, someone in your family or a friend was upset and their amygdala was firing?
- Can you think of a movie you have seen where you saw this amygdala fire in one of the actors? What about a book you have read and discovering a character that was upset or experiencing lots of big emotions?

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

 Poppy and the Overactive Amygdala_by Holly Rae Provan

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND SECONDARY:

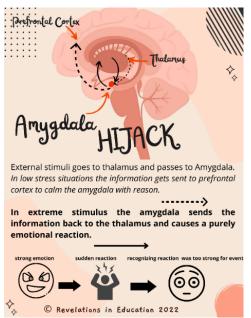
• <u>Amygdala Facts</u> or <u>Printable Article</u>

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADES 5 AND UP & SECONDARY

"The Science of Anger" (Time Marker 2:28)
 trigger warning cartoon violence

ALL SECONDARY



TASK/LESSON:

Lesson focus: Amygdala: Day 1

The amygdala is the alarm center for the brain. It is the emotional station for our brain and it can make our prefrontal cortex go offline and disrupt our ability to think. The amygdala communicates through emotions. When the amygdala is firing we need to regulate/calm.

Review the anchor chart and add new learning from today's discussion. Discuss times where amygdala has been activated and what has happened

DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide teacher modeling where necessary to add to schema/background knowledge
- Preview any new vocabulary and provide visuals

Amygdala (4:30-6:36)

The Neuroanatomical Transformation of the Teenage Brain: Jill Bolte Taylor at TEDxYouth@Indianapolis (Time marker 6:40- 7:22)

- Why does my amygdala overreact sometimes?
- My amygdala and my hippocampus are so connected. Why is this and how does it affect the way I feel and think?
- Can we think of personal examples to share?
- What do you remember about the 90 second rule?

NOTE: For Secondary Students Teenage Brain- We will need to talk through this and chunk minutes with discussion. (Time Marker-Minutes 7:22-13.00)

TOPIC:

THE BRAIN NEUROANATOMY

GUIDING QUESTION:

Where is the prefrontal cortex, amygdala, and hippocampus?

TEACHING TIME:

30 - 40 minutes

MATERIALS/PREP:

- see "Hemisphere Hat" lesson
- art supplies, etc.
- Vocabulary words posted on board/chart paper

TASK/LESSON:

Classroom community creates Brain Hats from resources. Spend time wearing, discussing and reflecting on learning from the week. Spend time creating brain hats to demonstrate knowledge of brain regions.

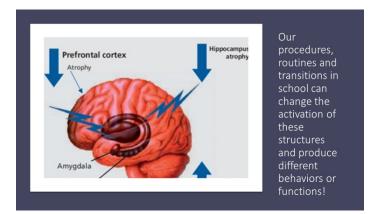
DIFFERENTIATION STRATEGIES:

- Provide extra think time before students answer
- Provide teacher modeling where necessary to add to schema/background knowledge
- Preview any new vocabulary and provide visuals
- Reduce amount of written academic words in project (approx. 5)
- From the videos, students can explore various TOPIC:s and draw images, journal and share interesting facts and how those relate to their own lives. Students could create a graffiti wall that represents their thoughts, songs, poetry, and facts they are learning and discussing.

RESOURCES FOR TEACHERS:

ELEMENTARY AND SECONDARY

- Brain Hat Activity Lesson Plan
- Momentous Institute -<u>Video Library (video tour)</u>
- Brainline- Interactive Brain
- Brain Facts and an Interactive Brain -3D Brain



TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

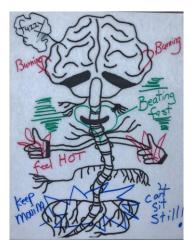
What is the Autonomic Nervous System?

TEACHING TIME:

15-20 minutes

MATERIALS/PREP:

- copy of ANS: 1 per student
- completed copy of teacher ANS to provide as a model (see example below):



art supplies

TASK/LESSON:

- Share with the individual or the class what the Autonomic Nervous System is.
- Our bodies and brains work together all day long. The name for this special connection is our ANS. ANS stands for Autonomic Nervous System. ANS is our superpower! ANS is paying attention to everything we do, see, hear, feel, and experience every second of the day! We don't have to think about our ANS for it to work well!

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: AND SECONDARY

 Trauma and the Nervous System: A Polyvagal Perspective (Time marker:28-2:15)

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

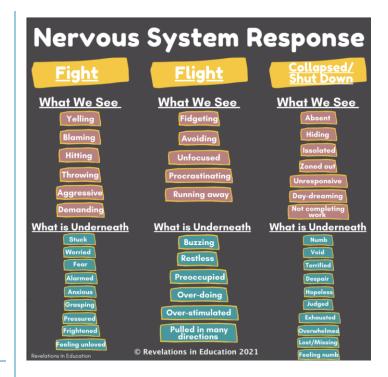
- Polyvagal Flip Chart: Understanding the Science of Safety by Deb Dana
- Beyond Behaviors Flip Chart: A
 Psychoeducational Tool to Help Therapists,
 Teachers & Parents Understand and Support
 Children with Behavioral Challenges by Monda
 Delahooke, PhD
- <u>Using Polyvagal Theory to Understand Kids'</u>
 <u>Behavior, with Dr. Stephen Porges Bright & Quirky</u>
- Polyvagal Theory Powerpoint or PDF

CONTINUED

- It pays attention to how we feel on the inside!
 We can become aware of our ANS and learn
 how to notice how our ANS is reacting to
 everything around us! When you become
 ANS's friend, you focus on how you feel in your
 body as you move in and out of experiences all
 day long! When you recognize ANS, you begin
 to identify, share, listen, and focus on HOW
 you feel and WHY you feel the way you do!
- Share your personalized ANS. Discuss about how and why you designed it the way you did. You can also share personalized ANS examples for specific feelings and sensations such as worry, fear, excitement, loneliness, etc.
- Allow time for students to create their personal ANS.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- provide individual models as needed



How Your Brain Works & Changes - Huberman
 Lab (Time marker: 5:00-8:55)

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

How does the Autonomic Nervous System serve help?

What does survival mean?

How does the Autonomic Nervous System keep us safe?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- chart paper
- images related to survival -see examples below







Discussion Questions:

What does survival mean? Why is survival important? Our nervous system wants us to survive more than anything else! What do you think our nervous system pays attention to so we can survive?

TASK/LESSON:

Our ANS is always trying to protect us! If our ANS senses danger or anything that feels unsafe to our nervous system, it reacts, and our body moves into survival responses! In survival responses, we cannot think clearly and are only paying attention to what feels safe or dangerous to our bodies. We don't have to think about our ANS for it to work well! ANS is our automatic protector.

Discuss survival with the class.

Use think alouds to share thoughts about two survival images. Share how you think they connect to survival. Show students additional images and allow them to share their thoughts about how the images connect to survival.

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES K+

- Hey Warrior by Karen Young
- Hey Awesome by Karen Young

ALL ELEMENTARY: AND SECONDARY

- <u>Freeze Response when a Possum is Playing</u>
 Dead
- Impala in and slowly out of collapsed immobility
- Fight Flight Freeze A Guide to Anxiety for Kids
- Brain Science for Kids Thinking and Feeling

- pre-teach vocabulary (danger/unsafe, sense/sensation, survival, react, experiences) as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is neuroception?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

chart paper

TASK/LESSON:

Neuroception is the automatic process of how we take in information from our environments. We do not think about what feels safe or dangerous, our bodies do this automatically! We are unconsciously scanning our environments for safety and danger and we do this without thought. Our body is always protecting us! It is an automatic response. Neuroception is also picking up on information from our interactions with other people. Neuroception is a brain stem response, so we do not plan, think, or decide how our nervous systems are experiencing the people, places, and events around us. Your neuroception is always turned on. It is the smoke detector in your body! Remember that this is an unconscious, automatic response, and it is not always accurate! How you feel and what you sense in a moment may be a result of your brain and body being in an alarm survival state!

Share with students how your ANS acts when you feel unsettled or begin to feel unsafe. Examples: close your eyes, put your head down, run out of a room, yell, hold your head.

All students act out or discuss how they feel when they begin to feel unsettled or unsafe.

Co-create a list on chart paper labeled, *How Our ANS Act When Feeling Unsettled or Unsafe*

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: GRADES K - 9TH GRADE

Fight Flight for Kids

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

 Neuroception: the missing piece in our children's mental health crisis Claire Wilson | TEDxTelford



- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is neuroception?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

- paper
- art supplies
- model of your drawing of neuroception

Discussion Questions:

- How has it changed since last night?
- How has it changed since last week?
- What do you notice?
- What feels different in this design?
- What feels similar?
- What do the colors say to you?
- What do the shapes communicate?

TASK/LESSON:

Neuroception is our autonomic nervous system's smoke detector and think of a volume knob! When you feel safe and content, your volume is low, but when you begin to get frustrated, angry or worried or anxious, our volume begins to go up! Throughout the day, we can check in with our neuroception and give it a number! When we recognize our ANS, we begin to feel a bit better! "What we can name, we can tame."

Let's draw and design our neuroception. What colors, shapes, lines, designs, objects, or images describe the perception of your neuroception right now?

DIFFERENTIATION STRATEGIES:

- provide individual models as needed
- provide pre-cut materials as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY



TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

How does body language impact our neuroception?

How does tone of voice impact our neuroception?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

chart paper

Discussion Questions:

- What were their eyes signaling?
- What did their tone of voice sound like?
- What was their face expressing?
- What did their posture and the way they move their hands and arms look like?

TASK/LESSON:

Can you think of a time when you read the body language of a friend, or an adult and you felt comfortable and safe? Can you think of a time when you read the body language of someone that for you, felt uncomfortable or unsafe? Our brain notices body language and tone of voice without us thinking about it at all!

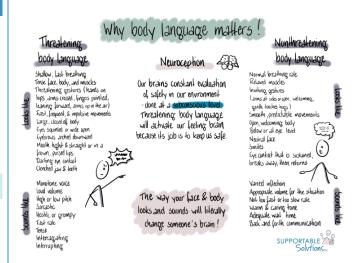
Co-create a list of what safe/comfortable body language and tone of voice looks and sounds like and what unsafe /uncomfortable body language looks and sounds like.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- Students could create their own neuroception volume knobs. If I turn my knob to a range of 1-3, I feel relaxed. If my neuroception volume is 4-6, I am feeling a little rough, irritated or anxious. If my neuroception knob is in the range of 7-10, I am feeling angry, scared, very worried or sad or dysregulated in some way! My cortex is probably offline.
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY: GRADES K - 12





TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How does tone of voice impact our neuroception?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Discussion Questions:

- Can you give examples of changes in your behavior based upon how people spoke to you?
- How do tones and sounds of voices affect your behavior?
- Try saying these phrases in three different tones
- I'm fine- angry
- I'm fine- sad
- I'm fine- happy
- Can you think of a phrase and state it with three different emotions?

TASK/LESSON:

Tones of voices matter to our nervous systems! When we are feeling shut down and collapsed, one of the only signals for our nervous system to feel safe is through a calm voice! Can you think of voices that feel calming to your nervous systems?

Provide time for students to act out voices that feel calming to their nervous system.

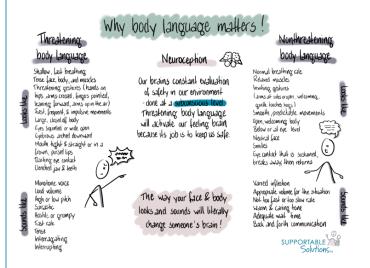
Provide time for students to consider the discussion questions in pairs, groups, or as a whole class.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

• Video: <u>Tone of voice: what you REALLY mean</u>

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- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out. alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

How do facial expressions impact our neuroception?

How do facial expressions around us impact our behavior?

What do safe bodies and faces look like?

What do unsafe or threatening bodies look like?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

• Video: <u>Inside Out: Guessing the feelings.</u>

Discussion Questions:

- When interacting with others, what do safe faces and bodies look like?
- What do unsafe or threatening faces or bodies look or feel like?

TASK/LESSON:

When we are talking, listening, playing, approaching, and interacting with others, our bodies are always and automatically picking up on cues of safety or danger from other people! Let's talk about facial expressions today! Facial expressions we pick up can affect our feelings and therefore our behaviors!

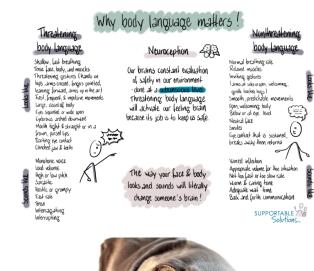
Let's watch this video. As you are watching, be thinking about what the facial expressions are and the feelings that are being shown. Record your thoughts.

Let's think about how our bodies communicate feelings and affect our behaviors. We are going to watch that video again but this time as you watch, think about how our bodies communicate feelings and therefore behaviors. What do you notice about body movement (gestures and postures) in this video? As you are watching you can write or draw your observations in your journal.

Provide time to consider discussion questions in pairs, small groups, or the whole class.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY





- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out. alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- · strategic grouping as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

What is the vagal brake?

Where is the vagal brake?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

• brake images (see examples below):





Discussion Questions:

- Have you ever followed a path?
- Where did it lead you?

TASK/LESSON:

Just like a car, truck, or bike that you are riding or driving, you need a brake to slow down or stop. Here is a picture of the inside of a brake and the outside of the brake! What would happen if you were driving your car at a high speed or riding your bike very fast and you were getting ready to turn into a parking spot or driveway and you did not put your foot on the brake? You would probably crash your car or bike! Our ANS has a brake too! We cannot see the brake. but when we are feeling safe, calm, and connected to others, our nervous system's brake is on! In many ways, our nervous system is always trying to be our friend and if we listen to our bodies and brains, our ANS knows how to activate the brake! We have a pathway of nerves that connect our brains to our bodies! A pathway is a narrow opening that helps to travel from one spot to another!

Provide time for students to talk in partners or groups to review the discussion questions.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

- What Is The Vagus Nerve? | Vagus Nerve
 Explained | Brain, Mind Body Connect
- <u>2-Minute Neuroscience: Vagus Nerve (Cranial</u> Nerve X)
- Vagus nerve: location, branches and function (preview) - Neuroanatomy | Kenhub
- Introducing the Polyvagal Theory to 2nd Grade Students 6

ALL ELEMENTARY:

- Introducing the Polyvagal Theory to 2nd Grade Students 3
- Introducing the Polyvagal Theory to 2nd Grade
 Students 4
- Introducing the Polyvagal Theory to 2nd Grade
 Students 5
- Introducing the Polyvagal Theory to 2nd Grade
 Students 6

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

What does the vagal brake do?

When are times our vagal brake is on?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

- chart paper
- brake images (see examples below):





Discussion Questions:

- When are times your brake is usually on?
- Can you think of the people or places that feel safe and soothing to you?

TASK/LESSON:

The vagal brake turns on when we feel safe and connected.

Provide time for students to discuss questions in pairs or small groups.

Co-create an anchor chart titled Times Our Brake Is On as students or groups share their thoughts.

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:: GRADES K-4

- Relationship with Emotions: Essential Skills for Mental Wellness
- All Upper Elementary and Secondary-Trauma and the Nervous System: A Polyvagal Perspective - In this video, we will need to watch small chunks at a time, possibly skipping over some parts and then sharing how our own lived experiences connect to our hierarchical autonomic states.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND UPPER:

• The Polyvagal Theory: The New Science of Safety and Trauma

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

What does the vagal brake do?

When are times our vagal brake is off?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

- chart paper
- brake images see examples below:





Discussion Questions:

- When are times your brake is off?
- Can you think of the people or places that feel unsafe and uncomfortable to you?

TASK/LESSON:

Remember, our nervous system is always trying to be our friend and if we listen to our bodies and brains, our ANS knows how to activate the brake! When our brake is off, we sometimes regret what we said or how we acted! This is true for adults too! When the vagal brake is off, our vagus nerve pathways between our bodies and brains are not able to hold back and we may begin to react and feel uncomfortable, anxious, fidgety, and unable to focus or learn well! Our bodies and brains are always protecting us and searching our environments for danger or safety!

Provide time for students to discuss questions in pairs or small groups.

Co-create an anchor chart titled Times Our Brake Is Off as students or groups share their thoughts.

RESOURCES:

- The Vagal Brake- <u>Deb Dana | The Vagal Brake</u> and listening
- Regulating the Nervous System with Movement - Deb Dana

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

What makes our brake turn off?

What releases our brake?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- paper
- brake images see examples below:





TASK/LESSON:

Share that there are people, places, experiences, sights, sounds, and smells that signal or remind us of what feels safe or unsafe to our ANS.

Show students your model. Share your image of a circle around the brake. List images or words in your inner circle depicting times your vagal brake was on and you were feeling safe and enjoying the people around you. Share the words or images of experiences or events when your brake was off and you felt anxious, irritated or angry.

Provide time for students to create their own circles.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- pre-cut words and images as needed

RESOURCES FOR OLDER STUDENTS AND EDUCATORS:

 Trauma and the Nervous System: A Polyvagal Perspective

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How do we turn on our vagal brake?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- "Just Breathe" by Julie Bayer Salzman
 & Josh Salzman (Wavecrest Films)
- chart paper

Discussion Questions:

- What are some strategies you use to feel safer and more peaceful?
- Why is deep breathing important?
- What happens in our body when we take the time to breathe deeply?
- What are you curious about after watching this video?
- What did you learn?

TASK/LESSON:

Remember, our nervous system is always trying to be our friend and if we listen to our bodies and brains, our ANS knows how to activate the brake! What if our brake is released? How do we turn on our brake when we need to?

When we take deep breaths, exercise, draw, journal, or create art, these practices can help us to turn on our brake so that we may begin to feel safe and a little more peaceful.

Model deep breathing for the students using self-talk to say, "I used deep breathing to turn on my vagal brake. Now I feel peaceful and safe."

RESOURCES FOR STUDENTS:

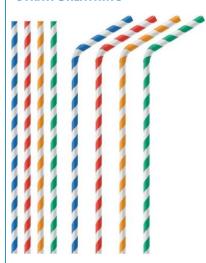
ALL ELEMENTARY: AND SECONDARY

Ways to Find Our Calm Physiological Sigh- This breath consists of two quick in breaths, and then a long slow outbreath. Mammals do this naturally as we are falling asleep or following a good cry. This breath activates the parasympathetic pathway of the nervous system lowering our blood pressure, respiration and heart rate.



CREDIT-FIZKES

STRAW BREATHING



Breathe in through the straw and do not force the breath, simply let it flow. At the end of the exhalation, gently place your tongue on the tip of the straw and breathe in again through your nose and once more exhale through the straw. Continue this process for 1 to 2 minutes.

CONTINUED

Watch Just Breath.

Co-create an anchor chart titled Ways I Can Turn On My Vagal Brake as students share their thoughts.

Provide time for students to answer discussion questions in pairs, small groups, or as a large group.

Provide time throughout the year to explicitly teach and embed into routines/procedures deep breathing and other strategies listed on the anchor chart.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed

- 100 Focused Attention Practices: Word or PDF Focused Attention Practice (FOAP): Backward Palms
- Focused Attention Practice (FOAP): Wrist Rotation
- <u>Focused Attention Practice (FOAP): Vagus Nerve</u>
 FOAP
- Focused Attention Practice (FOAP): Finger Tracing
- <u>Focused Attention Practice (FOAP): Finger Tracing</u>
- Focused Attention Practice (FOAP): Breathing
- Focused Attention Practice (FOAP): Container Hold
- Focused Attention Practice (FOAP): Box Breathing

ALL ELEMENTARY: GRADES K-4

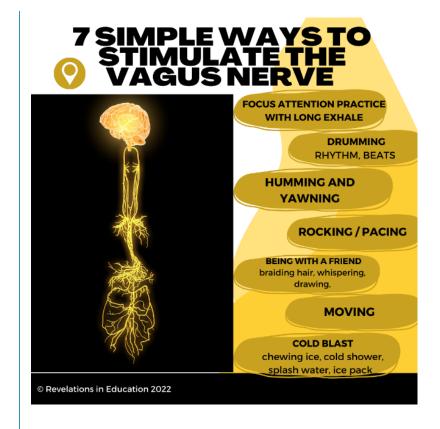
- Relationship with Breath
- Breathing is My Superpower: Mindfulness Book for Kids to Feel Calm and Peaceful by Melissa Ortego

ELEMENTARY KINDERGARTEN-3RD:

- Breathing Makes It Better by Christopher Willard and Wendy O'Leary
- Alphabreaths The ABCs of Mindful Breathing by Christopher Willard & Daniel Rechtschaffen
- breath with me using breath to feel strong, calm, and happy by Mariam Gates

ALL SECONDARY: GRADES 4TH - 12TH

- 4-7-8 Breathing | GoZen!
- Mindful Breathing: A 66 Second Story by GoZen!



RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

• Breath: The New Science of a Lost Art by James Nestor

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the Ventral Vagal Pathway?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- paper and art supplies
- images of different experiences and events

Discussion Questions:

- What makes your ANS slow down?
- When do you feel safe, connected, and playful?
- When are you paying attention to what's happening in the present moment?
- brake image (see example below):



TASK/LESSON:

We are going to talk about the Ventral/Vagal-Pathway. This is the newest part of our autonomic nervous system and it is around 200 million years old! When we are feeling calm, safe, and curious, the frontal lobe regions of our brains are turned on! When we are playing or excited about something, and feeling curious, safe, happy, and peaceful, our ANS is slowing down and enjoying this time with us! When our ANS feels calm, it slows down and pays attention to what is happening in the present moment or "in this minute.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

These are new FoAP for regulation and calm, as we put the brake on the vagus nerve.

Calming Focused Attention Practices

Golden Cord- In this FoAP, we imagine a golden cord with a glittering ball attached. This cord connects our chest to our bellies. As we take a deep breath in, we see the glittering ball move up along the golden cord into our chests and as we exhale, we see the glittering ball move back down the cord into our bellies. You can imagine this movement as fast or slow as you would like. Try this for one minute as you focus on your breath and the vision of glittering movement.

Paint Breathing- In this FoAP, each student receives a straw and a dab of acrylic or oil paint on a paper plate or sheet of paper. As we inhale through our nose, we exhale long and slow through the straw as the air from our exhale moves the paint around the paper. When we are intentional about a long low exhale, we activate the parasympathetic pathway, slowing down our heart rate and lowering our blood pressure. This FoAP can also be done without paint or a straw as we breathe in through our nose, and then as we purse our lips, we breathe out long and slow emptying our bellies with all our breath!

Labyrinth Movement and Breathing – In this FoAP, students can use chalk, spray paint, or even yarn or string to create their personal labyrinth path. This can take place in a large indoor area or outside. A labyrinth can be interchanged in this practice as a possible maze where students create an intricate

CONTINUED

Provide time for students to talk with a partner or small group about the discussion questions.

Sometimes there are people, places, experiences, sights, sounds, and smells that signal or remind us of what feels safe or unsafe to our ANS! Show students your brake image with a circle around the brake. Share with students the words or images you added to your inner circle depicting times your vagal brake was on and you were feeling safe and enjoying the people around you. Share the words or images of experiences or events when your brake was off and you felt anxious, irritated, angry, or sad.

Provide time for students to draw a large circle around their brake. On the inside of the circle, have students write words or draw images of when their vagal brake was on, and they were feeling safe and were enjoying the people around them. On the outside of the circle, have students write words or share images of experiences or events when their brake was off and they felt anxious, irritated, angry, or overwhelmed, excited, sad!

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed
- provided pre-cut/pre-made experiences and words as needed

path with different shapes and passages that begin at a certain point and end at another. The practice is to create a unique labyrinth/ maze design and then move through with deep breaths as you wind around your creation. There are a variety of ways we can implement these and some of the variations might include, listening to music while walking, walking backwards, taking giant steps that align with our inhales or exhales or any movement that might be engaging for a particular age group. Classes can also design one large labyrinth or maze collectively.

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the role of the vagal brake in the ventral vagal pathway?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

Jamboard activity (provided below) or something equivalent

- Elementary JAMBOARD
- Secondary JAMBOARD



TASK/LESSON:

The Vagal Brake's activity increases or decreases our heart rate for our survival! When we need to protect ourselves, we release the brake to go faster and when we need to slow down to feel safe and engaged, we re-engage the brake! We cannot do this unless we are aware of our ANS and how we feel and sense in our bodies!

We can now begin to connect feelings to the activity of our vagal brake! Let's make a chart that determines when we are feeling a specific emotion, which autonomic state are we in or when is our brake on or off?

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

Exercise Your Vagal Brake - Nurtured Kids, Episode 14

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTIONS:

What sensations signal safety in your body?

How do you experience those feelings of safety and calm in your body?

Where do you feel those sensations in your body?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

art supplies

Discussion Prompts:

- What sensations do you experience when experiencing feelings of safety and calm in your body?
- <u>sensations chart</u> (elementary)
- sensations chart (secondary)
- Where do I feel my sensations?
 1 worksheet per student

TASK/LESSON:

Provide groups time to talk about the discussion question. Provide time for students to draw or list their sensations. Provide students with time to draw where they experience the sensations they feel during moments of safety and calm.

Provide students with time to share their drawings with others.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed
- provide strategic grouping as needed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

 Relationship with Emotions: Essential Skills for Mental Wellness

ALL ELEMENTARY: AND SECONDARY:

- Sensations Printable Visual Exercise
- Relationship with Emotions: Essential Skills for Mental Wellness

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Mapping Emotions On The Body: Love Makes
 Us Warm All Over: Shots Health News: NPR
- How Your Brain Works & Changes Huberman
 Lab Sensations (Time Marker -14:30-16:10)

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How do we feel when we are in the ventral vagal pathway?

TEACHING TIME:

10 - 15 minutes

MATERIALS/PREP:

- <u>Polyvagal Pathways & Feelings</u> (secondary)
- Polyvagal Pathways & Feelings (elementary)

Discussion Questions:

- When do you feel happy, calm, safe, etc.?
- How do you know you are feeling happy, calm, safe?
- What does your body feel like?
- Where do you feel your emotions?

TASK/LESSON:

Share image/s of polyvagal theory with students.

Discuss different emotions that we all feel when we are in the ventral vagal pathway.

Have students think about times they felt those emotions.

Work and pairs or groups to answer discussion questions.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:



ELEMENTARY 3+:

 How We Read Emotions from Faces or Printable Article

ALL SECONDARY:

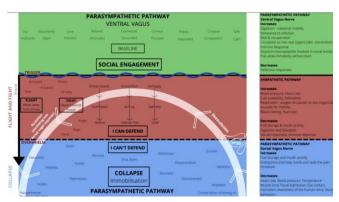
<u>Can Children See Emotions in Faces?</u>
 or <u>Printable Article</u>

CONTINUED

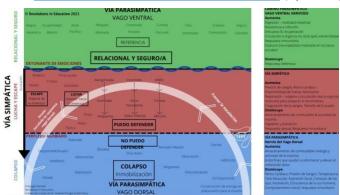
RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY

• Sympathetic Pathway-Flight and Fight (English)



Sympathetic Pathway-Flight and Fight (Spanish)



https://drive.google.com/file/d/1nEMOITnntppIrMxPGtGKkEBRAXYGOFX7/view?usp=sharing

RESOURCES FOR TEACHERS AND STUDENTS:

ALL SECONDARY:

• <u>10 Common Facial Expressions Explained - Listverse</u>

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What role does the prefrontal cortex play in the Ventral Vagal Pathway

TEACHING TIME:

5-7 minutes

MATERIALS/PREP:

• an image of brain

Discussion Questions:

- What are you able to do when you are in the Ventral Vagal Pathway?
- How does their prefrontal cortex help you?

TASK/LESSON:

When we feel safe, connected, and playful, our ANS tells our brain and body that we feel safe, and our prefrontal cortex turns on. This is when we can think clearly, pay attention, share, play, laugh and listen to our friends. When our ANS feels calm, it slows down and pays attention to what is happening in the present moment or "in this minute."

Provide time for students to answer discussion questions in pairs or small groups.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed

TEACHERS AND OLDER STUDENTS:

Therapist- Deb Dana | Polyvagal Theory in Action: 3D Example of the Nervous System with Ventral and Dorsal Vagal Systems

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What are co-regulatory practices?

TEACHING TIME:

15-20 minutes

MATERIALS/PREP:

Discussion Questions:

- Did you find a pattern, rhythm, or even a beat to your dual breathing?
- How did that feel?
- Did you feel safety and trust with your partner?

TASK/LESSON:

When we feel felt by another our ANS feels safety and trust. We can lean on others to help us coregulate. Coregulation is joining with another to share our experience so we can find protection and well-being. We have to have lots of practice coregulating to learn to self-regulate and bring ourselves back to safety and the ventral vagal pathway!

Allow students to practice by having students work in pairs to find a rhythm in their breathing. One partner takes the lead and finds a rhythm in their breathing. without talking, the group sees if the partner can batch the breathing rhythm.

Provide time for students to talk about the discussion questions.

RESOURCES FOR STUDENTS:

ELEMENTARY KINDERGARTEN-2ND GRADE

• Today I'm A Monster by Agnes Green

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY

<u>Dedicate This One</u>—In this Focused Attention
Practice, we create an image or write down a few
words that we want to share with someone we
appreciate! As we think of this person, we breathe
deeply for one minute sharing our love, hope and any
words of comfort we want to send to this person. We
then share our dedication with a partner. We can
draw, write out or visualize our appreciation.

Give Me Yours, and I'll Give You Mine—In this FoAP, we write down or draw a worry or concern we have and as we fold up the paper, we hand it to a friend. As we share our worries together, we breathe together for one minute breathing in strength and love and breathing out this strength and love and power to our friend. It is a choice if we share these with one another and as a class, we will need to set guidelines and agreements for everyone!

Mirror Me—In this co-regulatory practice, one partner creates a variety of body movements that the other person must mirror. We then switch partners, and the other leads the movements!

CONTINUED

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed

Dual Drawing and Dual Journaling—In this coregulatory practice, partners share a sheet of paper for one minute. When the time starts, one partner draws a line or shape and then passes it back to the other person for their line or shape and we continue to do this for one minute without speaking! When the time is up, we can share our dual masterpiece, giving it a title, and any description that feels appropriate to both of us. We can create the same format with dual journaling or storytelling. For oneminute students pass back and forth a sheet of paper contributing a sentence or two at a time creating a story! We can provide prompts of places, objects, or other themes, connecting to what we are learning and to each other. Maybe we write about our similarities, differences, interests, passions, etc.

Faces, Eyes, Gestures and Postures—It is important to notice another person's eyes, listen to their voice and watch their gestures and posture! These facial expressions and body languages tell us how someone is feeling, and they are signals for us when we are interacting with them! To be aware of their body language is to understand how we need to respond! People listen more to body language than the words people say! It is also very important to understand our own body language! What do you share through your eyes, face, and body when you are angry? Worried? Anxious?

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What are anchors?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

- paper
- art supplies
- images of objects and events

Discussion Questions:

- What images, people, experiences, or words signal safety to you?
- What colors, objects, or images feel calming to you?
- What places feel calming to me?
- What things do I need around me to feel safe?

TASK/LESSON:

Anchors are people, places, experiences, sights, sounds, and smells that signal or remind us of what feels safe to our ANS

Provided time for students to consider the discussion questions in pairs, small groups, or as a large group.

Provide time for students to create a list or image depicting their signals of safety.

DIFFERENTIATION STRATEGIES:

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed
- pre-made words/images cut out as needed

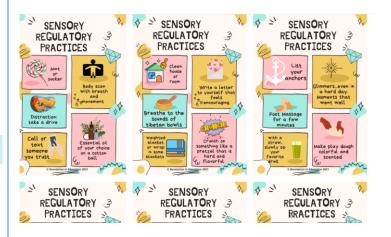
RESOURCES FOR STUDENTS:

ELEMENTARY K-2

• Video: Feeling Happy, Feeling Safe - Feeling Safe

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY



WHAT ARE YOUR HAPPINESS TRIGGERS?

Outdoors

Playing

Sports

Favorite places

Favorite foods

People who feel safe and calm

Sunshine

Animals

Interests

Projects

Favorite Music

What else?

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the purpose of anchors?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- bags
- items to add to nervous system bags

TASK/LESSON:

Model for students, people, places, activities, and items that feel calming to your nervous system. Share with students that anchors can help calm their nervous system and move or help keep them in the ventral vagal pathway.

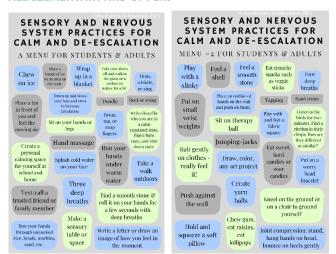
Create nervous system bags emphasizing that everyone has different items that help them calm and move them into the ventral vagal pathway and it's okay if bags are different based on individual needs. Share that the bags can be used whenever we feel we need to relax or chill. We might also want to pull items from our bag if we want to take a break or if we are celebrating something we have accomplished.

DIFFERENTIATION STRATEGIES:

- · pre-teach vocabulary as needed
- · strategic grouping as needed
- limited choices for bags as needed
- pre-made bags as needed based on what you know about the student's anchors

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY AND UPPER:



https://revelationsineducation.com/free-lesson-plans/



https://revelationsineducation.com/free-lesson-plans/

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

Why is it important for us to know what makes us feel safe?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

- art supplies
- a variety of images or resources to gather images (i.e., computer, magazines, etc.)

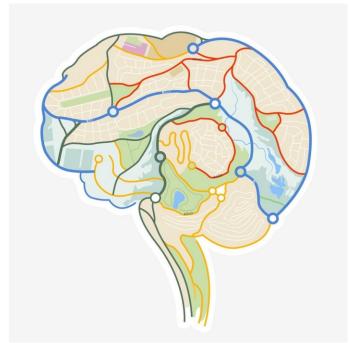
TASK/LESSON:

Share with students that when we feel calm and safe our ANS activates and helps us play, listen, learn, engage, and feel loving and loved by those around us. We can think clearly, pay attention, share, play, laugh, and listen to our friends. When our ANS feels calm, it slows down and pays attention to what is happening now in this moment. When we know what helps us feel safe, we can use those strategies to calm us down and help us to think clearly. We can create a safety map to help remind us of what colors, objects, shapes, people, sensations, and experiences help us feel safe.

Provide time for students to create a Safety Map using images or words.

Students can create a variety of maps that they can identify as

- Trigger or activator maps
- Fear Maps
- Strength Maps
- Identity Maps



Credit- Solarseven

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed
- pre-made words/images cut out as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the Fight/Flight Pathway (Sympathetic Pathway)?

TEACHING TIME:

10 - 15 minutes

MATERIALS/PREP:

- <u>Sensations chart</u> (elementary)
- <u>Sensations chart</u> (secondary)

Discussion Prompts:

- Can you think of a time when you felt these sensations and feelings?
- When did your body and brain feel unsafe or in danger?
- How did you experience that in your body?
- What sensations did you have?

TASK/LESSON:

Share with the class that the fight/flight pathway or the sympathetic pathway is the part of our autonomic nervous system that is over 300 million years old. This part of ANS helps us protect ourselves. It is connected to our lower brain regions, specifically the amygdala, which act like our brain's smoke detector. There are many times throughout our days, where our bodies and brains feel worried, anxious, irritated, annoyed, afraid, or scared. This happens to all of us all the time! It's OK not to feel OK! When we feel these feelings, our bodies sometimes talk to us through tears, sweating, fast heart beats, stomachaches, or a headache.

Provide time for students to talk about the discussion prompts in partners, small groups, or the whole class.

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

- hey Warrior by Karen Young
- Fight Flight for Kids

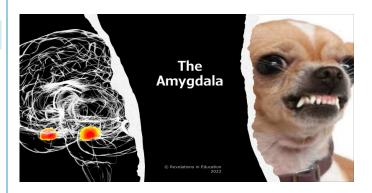
ELEMENTARY 3+:

• Brain Basics: Lee Constable (time marker: 3:30-5:20)

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

<u>Understanding the stress response - Harvard</u>
 <u>Health</u>



- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the role of the vagal brake in the fight/flight pathway (Sympathetic Pathway)?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

- image of brakes
- art supplies
- Videos ready to play as needed

Discussion Prompts:

- Show or discuss how "fight" looks when your brake is off in your ANS
- Show or discuss how "flight" looks like when your brake is off in your ANS.
- How do you think it will help you to know and think about what your body looks like when the brake is off?
- How will this help you in school and home?

TASK/LESSON:

Share with the class that the vagal brake is off as our fight/flight pathway is activated as our bodies are prepared for protection through action.

Share a drawing or show with your body how "fight" looks like when your brake is off. Model a drawing or show with your body how "flight" looks like when your brake is off.

Provide time for students to talk and/or draw about discussion prompts.

RESOURCES FOR STUDENTS:

ELEMENTARY 3+:

 How We Read Emotions from Faces or <u>Printable Article</u>

ALL SECONDARY:

<u>Can Children See Emotions in Faces?</u>
 or *Printable Article*

SECONDARY 7-12:

 10 Common Facial Expressions Explained -Listverse

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

 10 Common Facial Expressions Explained -Listverse

- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed
- pre-made words/images cut out as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What role does the amygdala play in the fight/flight pathway (Sympathetic Pathway)?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

- brain image that includes thinking/feeling brain or upstairs/downstairs brain
- <u>Calm Down and Release the Amygdala</u> (Time marker 0:00-:40)

Discussion Prompts:

- When did your body and brain feel unsafe or in danger?
- How was your thinking impacted?

TASK/LESSON:

Share with the class that the amygdala is the alarm center for the brain and does not respond to words but emotions. When your amygdala is alerted, your prefrontal cortex goes offline. Your amygdala keeps you safe, helps you to process emotions, and decide between fight or flight.

Share an image of the brain with students while discussing the amygdala.

Watch the video with students while providing time to talk about the discussion questions with partners, groups, or as a whole class.

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY:

- Your Amygdala and the Ha Feelings Song
 ELEMENTARY 3+:
- Brain Basics: Lee Constable (time marker 0:00-3:30)

SECONDARY: GRADES 7 - 12

• 2-Minute Neuroscience: Amygdala

ALL ELEMENTARY: AND SECONDARY:

 Brain & amygdala hand model explains how thoughts & emotions fuel anxiety

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Human Brain Series
- <u>Understanding Trauma: Learning Brain vs</u>
 <u>Survival Brain</u>

- brain image or vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- strategic grouping as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the fight/flight state?

TEACHING TIME:

approximately 25 minutes

MATERIALS/PREP:

Parts of the Brain anchor chart- Example of a Brain Anchor Chart (see example below):

Ideas might include emotions word wall, sensation word wall or the vocabulary you are focusing on aligning with the TOPIC:

Vocabulary:

- helpful vs. hurtful
- fight
- flight



TASK/LESSON:

LESSON FOCUS: Amygdala: Day 2

(quick review/continued conversation from previous lessons)

The body's fight or flight reaction in the amygdala is a common and biological way to prepare our body for action. It is important that we recognize and notice when our bodies are having these symptoms and that we respond in a way that is helpful and not hurtful.

DIFFERENTIATION STRATEGIES:

word wall or vocabulary visible to activate prior knowledge

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

Why Do We Lose Control of Our Emotions?

ELEMENTARY 3+:

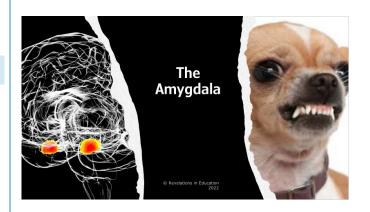
Fight or Flight (Time Marker 1:33)

SECONDARY: GRADES 7 - 12

A to Z Fight or Flight

RESOURCES FOR TEACHERS:

• How Stuff Works: Fight or Flight Article



TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How do we feel when we are in the fight/flight pathway?

TEACHING TIME:

approximately 25 minutes

MATERIALS/PREP:

- parts of the Brain image or anchor chart
- emotions word wall

Vocabulary:

- helpful vs. hurtful
- fight
- flight

TASK/LESSON:

Please share a book title, song title or lyrics, a line from a favorite poem, or an image that describes where you are in your nervous system at this time!

DIFFERENTIATION STRATEGIES:

Word wall or vocabulary visible to activate prior knowledge

RESOURCES FOR STUDENTS:

ELEMENTARY KINDERGARTEN-3RD GRADE:



ELEMENTARY 3+:

 How We Read Emotions from Faces or <u>Printable Article</u>

ALL ELEMENTARY:

• Fight Flight Freeze – A Guide to Anxiety for Kids

ALL SECONDARY:

<u>Can Children See Emotions in Faces?</u>
 or <u>Printable Article</u>

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY

- Anxiety & depression in kids: Healthy Head to Toe
- Anxiety Explained

ALL SECONDARY:

 10 Common Facial Expressions Explained -Listverse

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What are activators?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

chart paper/whiteboard

TASK/LESSON:

Share with the class that activators are sounds, someone's tone of voice, a place/thing, smells, etc. that upset us. Sometimes, this can be confusing because we do not know why we are becoming upset. When we see/hear/touch our activators, we can become activated and suddenly feel mad or panicked!

Create a list of potential activators with the class

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

Why Do We Lose Control of Our Emotions?

ELEMENTARY 3+:

Copy of Triggers*



*It's very important to watch this video with students and be prepared to help one another to make a plan to meet our activators or triggers! Let's make a plan.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

Create trigger or activator lists:

Older youths (those in grades 5 - 12) who have experienced trauma sometimes know their triggers/activators — those sounds, sights, sensations and experiences that spark negative emotions. A few times each week, I check in with all students and have them create a list of triggers that can block learning and relationships, and also list those experiences, people, or celebrations that enhance positive emotions. This is also a great way for educators to collect perceptual data and build trusting relationships with students. What are your buffers?

ALL ELEMENTARY:

Examples of teaching ANS Activators and Memories

- Our ANS And Memories
- ANS and Our Triggers and the Singing Bowl

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How does my Autonomic Nervous System feel when it's activated?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- copy of ANS per student
- completed copy of teacher ANS to provide as a model
- art supplies

TASK/LESSON:

Today we are going to talk about how our ANS feels when activated!

Share your ANS when activated.

Provide supplies for students to draw their ANS when activated.

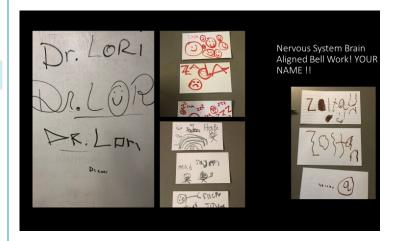
Can you write your first name in each of your hierarchy states? What would the shape of your letters look like when you feel safe and calm? What would the letters of your name look like in fight/flight, or when the brake is off? What would the letters of your name look like in freeze, shut down or immobilization? (For all Ages and Adults)

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY: GRADES 2 - 12

Examples of teaching ANS Activators and Memories

- Our ANS And Memories
- ANS and Our Triggers (Dr. Lori)



- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What activates your amygdala?

TEACHING TIME:

approximately 25 - 30 minutes

MATERIALS/PREP:

- Identify My School Triggers Doc
- emotions word wall
- Vocabulary: triggers-something that makes you act or think a certain way without



knowing it

TASK/LESSON:

It is important to know your triggers and be aware of others' triggers. When we are aware of what alerts our amygdala we can anticipate, plan ahead, and have more success responding when triggered in our environment. Complete the trigger survey with students over the next two days with a class share at the end of the activity.

Teacher model example of triggers in and outside of the classroom. Explain to students that in the next several lessons, we will spend time exploring our triggers by doing a survey and discussing our triggers, or hot buttons, as a community.

DIFFERENTIATION STRATEGIES:

- Word wall and anchor chart as reference points to assist in vocab
- Sentence stems for discussion
- Pull a small group and read document aloud
- Shorten/chunk the "School Triggers" doc

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY: GRADES 2 - 12

ANS and Our Triggers (Dr. Lori)

Note: could be used as an example of student discussion to activate background knowledge, consider playing with Closed Captions**

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What activates your amygdala?

TEACHING TIME:

25 - 30 minutes

MATERIALS/PREP:

- "Top 5 Triggers" anchor chart (can add to this during lesson)
- Triggers Survey (from previous lesson) -Identify My School Triggers Doc

TASK/LESSON:

Continue completing the survey from Day 24. Students choose their top 5 triggers, then share in a small group or with a partner before sharing with the whole group. Try finding similarities and common triggers and allowing students to explain their own triggers.

It can be helpful to post Top 5 lists in the classroom environment for accountability and reflection. Be sure to put these lists in a place for easy access during repair conversations.

DIFFERENTIATION STRATEGIES:

- Word wall and anchor chart as reference points to assist in vocab
- Sentence stems for discussion
- Pull a small group and read document aloud
- Shorten/chunk the "School Triggers" doc

RESOURCES FOR TEACHERS

ALL ELEMENTARY: AND SECONDARY:

Adult Triggers- My Push Buttons

- Cleanliness/ When things feel, people or experiences feel unclean I become anxious or irritated
- loud noises
- Harsh tone of voice
- clutter
- Feeling disrespected
- Crowds
- Bright lights

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What causes my brain to go on alarm alert? (Shift from prefrontal cortex to amygdala)

TEACHING TIME:

25 - 30 minutes

MATERIALS/PREP:

- "Top 5 Triggers" anchor chart (can add to this during lesson)
- Triggers Survey (from previous lesson) -Identify My School Triggers Doc

TASK/LESSON:

Triggers, or hot buttons, are events or situations that cause irritation, irritability, anxiety, sadness, anger, etc. If we are aware of our triggers, we can take action to avoid them in certain situations and/or anticipate when we might be triggered. If we bring this to our conscious mind, we can prepare and better respond rather than react in the emotional moment.

Over the next several days, students and teachers will complete the Identifying Triggers at School Survey from resources. Chunk the survey into manageable pieces for appropriate age level. Younger students could complete independently as the teacher reads questions aloud.

DIFFERENTIATION STRATEGIES:

- Word wall and anchor chart as reference points to assist in vocab
- Sentence stems for discussion
- Pull a small group and read document aloud
- Shorten/chunk the "School Triggers" doc

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY: GRADES 2 - 12

ANS and Our Triggers (Dr. Lori)

Note: could be used as an example of student discussion to activate background knowledge, consider playing with Closed Captions**

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What causes my brain to go on alarm alert? (shift from prefrontal cortex to amygdala)

TEACHING TIME:

25 - 30 minutes

MATERIALS/PREP:

- "Top 5 Triggers" anchor chart (can add to this during lesson)
- Triggers Survey (from previous lesson)-Identify My School Triggers Doc

TASK/LESSON:

Continued Trigger Lesson (if needed):

Review: Triggers, or hot buttons, are events or situations that cause irritation, irritability, anxiety, sadness, anger, etc. If we are aware of our triggers, we can take action to avoid them in certain situations and/or anticipate when we might be triggered. If we bring this to our conscious mind, we can prepare and better respond rather than react in the emotional moment.

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- Sentence stems for discussion
- Pull a small group and read document aloud
- Shorten/chunk the "School Triggers" doc

RESOURCES FOR TEACHERS:

• 5 Steps for Managing Your Emotions Article

EDUTOPIA ARTICLES - BRAIN AND EMOTIONS

- https://www.edutopia.org/article/supportingstudents-affected-trauma
- https://www.edutopia.org/article/roleemotion-co-regulation-discipline

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

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TEACHING TIME:

approximately 25 - 30 minutes

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TASK/LESSON:

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Review: Triggers, or hot buttons, are events or situations that cause irritation, irritability, anxiety, sadness, anger, etc. If we are aware of our triggers, we can take action to avoid them in certain situations and/or anticipate when we might be triggered. If we bring this to our conscious mind, we can prepare and better respond rather than react in the emotional moment.

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- Word wall and anchor chart as reference points to assist in vocab
- Sentence stems for discussion
- Shorten/chunk the "School Triggers" doc

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What are my top 5 activators that I need to share with my learning community?

TEACHING TIME:

5 - 10 minutes (depends on how much is left over from previous lessons)

MATERIALS/PREP:

- "Top 5 Triggers" anchor chart (can add to this during lesson)
- Triggers Survey (from previous lesson) -Identify My School Triggers Doc

TASK/LESSON:

Share in partners, small groups, or the whole group top 5 trigger list. Do you see common themes arise from class feedback? How could the class use this new learning to support essential agreements in the learning environment?

TO DO: Post and revisit top 5 lists as needed.

DIFFERENTIATION STRATEGIES:

- Word wall and anchor chart as reference points to assist in vocab
- Sentence stems for discussion
- Shorten/chunk the "School Triggers" doc

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND SECONDARY:

- How to Identify Your Emotions and What to Do About Them or <u>Printable Article</u>
- https://www.edutopia.org/article/teachingself-regulation-early-grades or <u>Printable</u> <u>Article</u>
- Connections Help When we feel dysregulated or triggered or Printable Article

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How can we shift from reactive responses to proactive responses when it comes to our emotional activators?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

- List of Classroom Jobs visible for students with descriptions
- Classroom Job Application Sample (1 per student)

TASK/LESSON:

On this day we will review and post our emotional triggers and the regulation strategies we have explored to support positive emotional regulation.

List of Classroom Jobs

Assign new roles and responsibilities in your classroom that help everyone to regulate their emotions and take responsibility for one another.

Here are some choices. Feel free to add more for your class so everyone has one! Add whatever is needed to help your community run so everyone has a role.

- Kindness Keeper- notices and shares out kindness noticed
- Gratitude Keeper- notices and shares out gratitude noticed
- Inspirational Leader- finds and share inspiration
- Mystery Motivator- provides encouragement anonymously
- Resource Manager- looking up TOPIC:s related to what we are studying and shares information
- Feeling Tracker- to recognize when a classmate or another student is beginning to feel negative emotion suggesting we might need a focused attention practice
- The Giver- what might this role be in your classroom?
- You Tube/ Tik Tok designer
- Help Desk/ Technology Support
- Artist
- Focused Attention Practice Leader

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADES 2 - 5

- Classroom Jobs Template List
- Classroom Job Application Sample

RESOURCES FOR TEACHERS:

Classroom Jobs

- read jobs aloud for students
- · add images as needed
- What other roles and responsibilities can students create on their own?

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What is the shutdown/collapsed pathway (Dorsal Vagal Pathway)?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

- Possum Playing Dead
- Opossum plays dead on the trail
- discussion questions
- Have you ever experienced a time when your ANS felt very unsafe or in danger and you were too sad or scared to move?
- copy of ANS per student
- completed copy of teacher ANS to provide as a model
- art supplies

TASK/LESSON:

Today we will talk about the Shut-Down/Collapsed—Dorsal Vagal Pathway. This part of our autonomic nervous system is the oldest! It has been a part of reptiles for over 500 million years and this pathway of ANS turns on when our brake has disappeared! This pathway is associated with our brainstems. When this pathway is activated, we can possibly feel hopeless, or maybe we want to disappear under our covers. We might feel stuck, sad, and alone! We might feel numb, terrified, unloved, fuzzy, broken, turned off, not wanting to talk or move, and frozen, like an ice cube! When we feel these sensations, our vagal brake has disappeared! This response is normal when we are feeling very scared, sad, and alone! We do not choose to feel this way, as this autonomic state is automatic and reacts based on our experiences!

Let's take a look at these animals in a shutdown immobilized ANS state. They are protecting themselves from danger.

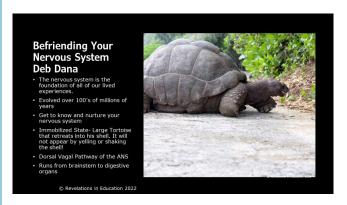
Provide time for students to talk about discussion questions in pairs, groups, or as a whole class.

Provide time for students to draw their ANS when they are in collapse or feeling shut down.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY: GRADES K - 12

- Possum Playing Dead
- Opossum plays dead on the trail



- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What do we feel like in the shutdown/collapsed pathway?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

• Inside Out: Guessing the feelings

Discussion Questions

- What did you notice about Riley's face and body when she experienced these emotions?
- What helped Riley move through her sadness?
- What has helped you move through these feelings and become unstuck?

TASK/LESSON:

View Inside Out: Guessing the feelings. Watch for collapsed/shutdown associated feelings such as sad, numb, afraid, and shut down.

Provide time to talk about discussion questions.

'Turning Red'- There are many BIG EMOTIONS in Turning Red! Can you think of a scene where Mai or one of the characters was feeling so overwhelmed, they felt isolated, alone, frozen or shut down?

RESOURCES FOR STUDENTS:

ELEMENTARY KINDERGARTEN-3RD GRADE:



Freeze Pathway

The Dorsal Vagal System Pathway that helps protect us against threat through collapse, immobility or shut down A collection of texts organized for a specific purpose to develop knowledge in a concept, theme, or conceptual concept



Reflection:

How can you use these books to introduce, model, & talk about autenomic nervous system states, leelings, sensations, thoughts, bidraiors, stressors, higgers, anchors, coping/restience strategies, & non-verbal book language ?



ELEMENTARY 3+:

 How We Read Emotions from Faces or <u>Printable Article</u>

ALL SECONDARY:

<u>Can Children See Emotions in Faces?</u>
 or <u>Printable Article</u>

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY AND SECONDARY

- Anxiety and depression in kids: Healthy Head to Toe
- 10 Common Facial Expressions Explained -Listverse | Printable Article

ALL SECONDARY

- Speak Up for Kids: Depression
- Pixar Disney/ Turning Red



TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How do our autonomic nervous system states fluctuate throughout the day?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- art supplies
- discussion questions
- How does it feel to share with others how your ANS responded to experiences and feelings?

TASK/LESSON:

Remind the class that our ANS is our superpower. It's paying attention to everything we do, see, hear, feel, and experience every second of the day! We do not have to think about our ANS for it to work well and pay attention to how we feel inside!

Share the definition of experience with the class. Model how your ANS has responded to experiences and/or feelings your ANS has responded to with the class. Share these with words, colors, a drawing, clay, or objects.

Provide time for students to share how their ANS has responded to experiences using art or words.

Provide time for students to talk about discussion questions with a partner, group, or whole class.

(Let's track our ANS and sensations for a week!)
Each day students can track their nervous system
on the ANS tracker and/or create a sensation word
jar where they check in maybe two or three times a
day with sensations and then on Friday, they can
share their most frequent sensations, times of the
day, days of the week, and any experiences that
created a different hierarchy state in their day!

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Using Art to Help Students Find Their Calm
- Finding Our Calm Lesson Plan



- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

How do I track my nervous system states?

TEACHING TIME:

5 minutes

MATERIALS/PREP:

- <u>PVT tracking form</u> (Elementary)
- <u>PVT tracking form</u> (Secondary)

TASK/LESSON:

Help students begin to chart the patterns of their ANS and feelings throughout the day and week. It will be helpful for caregivers to be aware of this introduction so students can share their nervous system at home as well.

Provide time for students to share their feelings and ANS with others.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES:

FOR ALL ELEMENTARY: AND SECONDARY STUDENTS:

Tracking our Nervous System

PVT Tracking

Tracking Our Sensations for a day, week or longer and noticing patterns.

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM

GUIDING QUESTION:

What are blended states of the Autonomic Nervous System?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- chart paper
- blended state pathways visual
- images portraying blended states

TASK/LESSON:

Share with the class that we can feel energized and safe at the same time or feel quiet and safe at the same time! These are called blended states of our ANS.

Write the following on chart papers: Blended States of Our ANS - options - energized and safe; quiet and safe. Display the chart throughout the lesson.

Look at images while using think-alouds to describe what you are noticing about the ANS states in the image.

Utilize the blended state pathways visual as students work in groups or individually to guess what pathways the children/adults in the images are experiencing in their ANS.

Provide time for groups to discuss.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND SECONDARY:

 Polyvagal Flip Chart: Understanding the Science of Safety by Deb Dana

Sometimes we experience Blended States of Functioning and below is a list to share with our staff and students.

- Ventral Vagal (Social Engagement) Feelings of calm, grounded, balanced, peaceful, curious, mindful
- Sympathetic (Fight/Flight)- Feelings or sensations of irritation, anxiety, worry, frustration, or growing anger
- Dorsal Vagal (Collapse) Sensations or feelings of numb, untethered, abandoned, lost, heavy, disconnected, or stuck
- Blended: Ventral Vagal and Sympathetic (Play)
 Sensations or feelings of anticipation,
 excitement, nervousness, jittery, playful, silly,
 and scattered
- Blended: Ventral Vagal and Dorsal Vagal (Quiet reflection) Sensations or feelings of quiet, stillness, serenity, lull, and hush
- Blended: Sympathetic and Dorsal Vagal (Alert but stuck) Sensations or feelings of racing heart, frozen, unsteady, fast and heavy, trapped and anxious

TOPIC:

AUTONOMIC NERVOUS SYSTEM: INSIDE OUR BODIES

GUIDING QUESTION:

What are sensations?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

- chart paper
- <u>Sensations chart</u> (elementary)
- Sensations chart (secondary)

Discussion Questions:

- What sensations in your ANS communicate to you that you are hungry, tired, restless, bored, upset, anxious, worried, curious, excited, or joyful?
- Can you think of other sensations you have experienced?

TASK/LESSON:

Define sensations for the class. Sensations are the language of the body, and we think of them as physical feelings as we can experience them through our entire nervous systems. They are feelings we sense in our bodies.

Share sensation charts and discuss terms with the class.

Provide time for the class to talk about discussion questions in partners, groups, or as a whole class.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

- Our Body Sends Signals by Natalia Maguire
- Listening to My Body by Gabi Garcia
- Meditate with Me by Mariam Gates

ALL ELEMENTARY: AND SECONDARY:

- Ice Cube Melt With a small ice cube, place on our tongues and for one -minute sense the ice melting in our mouths. Do not chew the ice. As we move the melting cube around in our mouth, we continue to breathe deeply through our nose. What are the sensations you have experienced? How many breaths did it take for the ice cube to melt? We can do this FoAP with frozen grapes and juice flavored ice.
- Palm Rub In this FoAP, we begin to slowly rub our palms together, increasing the speed for one minute. We continue to breathe with the gradual and then rapid movement for one minute and at the end, we release our palms and raise our arms in a V shape above our heads taking three long deep breaths. What sensations do you experience? How do you feel?

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Interoception: The Eighth Sensory System_by Kelly Mahler
- <u>Examples of students describing their sensations</u>
 <u>they experience in their bodies with a variety of</u>
 emotions
- <u>The science inside our hearts and minds</u> | Dr_Sarah Garfinkel | TEDxBrighton

TOPIC:

AUTONOMIC NERVOUS
SYSTEM: INSIDE OUR BODIES

GUIDING QUESTION:

How can we notice sensations?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Discussion Questions

- Can you think of three sensations that you feel sometimes in your body when you have a strong feeling?
- Are there objects at home or at school that remind you of how you feel when your head hurts, stomach is growling, hands are sweating, or you feel grumpy and hot?

TASK/LESSON:

Model sharing with the class different sensations you experience with strong feelings. Throughout your day, continue to model and share your own sensations. Provide time for students to talk in pairs, small groups, or as a whole class about discussion questions.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY:

- Checking In by Emily Arrow
- Body Scan for Kids Mindful or Printable Article
- 3 Minutes Body Scan Meditation Mindfulness For Kids And Adults
- Guided Meditation for Kids | BODY SCAN | Mindfulness for Children
- 15/21 Days of Mindfulness Bootcamp 5 Minutes Bodyscan Meditation for Families and classrooms

ALL SECONDARY:

- Body Scan Practice Extended
- 13 Minutes Body Scan Meditation For Teens and Adults/ Mindfulness For Children

ALL ELEMENTARY: AND SECONDARY:

Questions to pose to students:

- What are you sensing?
- Where is this in your body?
- What might be the reason for this sensation?
- Can you draw what the sensation looks like?

Sensation Packets:

These are journals or packets students can create and keep with them, collecting their various experiences they have throughout the day that bring on a variety of sensations!



They can use words, images, or emojis or any medium they feel is so aligned to their learning.



TOPIC:

AUTONOMIC NERVOUS
SYSTEM: BEHAVIORS ARE
SIGNALS

GUIDING QUESTION:

What is behavior?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

chart paper

TASK/LESSON:

Share with the class that our behaviors are signals that share the state of our nervous system.

Behaviors tell us how our nervous systems may be experiencing a situation, relationship, or an event.

Behaviors are what we see.

Co-create a list of behaviors with the class.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

- By choosing an image or making up our own, students can "act out" a sensation from the images or make up one to add to the sensation board.
- Sensations Lesson (full printable lesson)





TOPIC:

AUTONOMIC NERVOUS SYSTEM: BEHAVIORS ARE SIGNALS

GUIDING QUESTION:

What are behaviors?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

The Present - OFFICIAL

Note: Sometimes, it can be beneficial to watch video shorts in their entirety before rewatching to stop at specific points within the video to allow for discussion or think-alouds.

Discussion Questions:

- At the beginning of the film, what did you notice about the boy's ANS and behavior?
- What did you learn about behaviors we see in others?
- Can you think of times when your behaviors were misunderstood by others?
- Can you think of times when you misunderstood someone else's body?

TASK/LESSON:

Watch the video short and provide students with time to talk about discussion questions in partners, groups, or as a whole class.

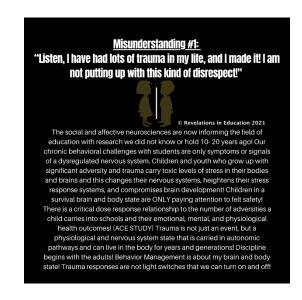
DIFFERENTIATION STRATEGIES:

- behavior anchor chart created the day before visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide a word bank of behaviors noted in the video for as needed

RESOURCES FOR EDUATORS:

What is Beneath Student behaviors?

- <u>Templates and Lessons REVELATIONS IN EDUCATION</u>
- Misunderstandings about discipline



TOPIC:

AUTONOMIC NERVOUS
SYSTEM: INSIDE OUR BODIES

GUIDING QUESTION:

How are our sensations and behaviors signals?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

Journals Or Discussion Prompts:

- Who are you in the Ventral Vagal Pathway?
- Who are you in the Fight/Flight Pathway?
- Who are you in the Dorsal/Shut Down Pathway?

TASK/LESSON:

Share with the class that all behaviors share how our ANS is experiencing the world inside of us, outside of us, and between us and others! Our behaviors are signals that share the state of our nervous systems! Behaviors tell us how our nervous system may be experiencing a situation, a relationship, or event. They help us to identify how we are feeling if we peel back the layers and look underneath our behavior. Today, we are going to talk about how behavior can share how our ANS is experiencing the world inside of us. If we are aware of our behaviors, they can help us and others know the state of our ANS.

Provide an example of who you are in each pathway - Ventral Vagal, Fight/Flight, and Dorsal/Shut Down.

Provide time for students to share who they are in each pathway either through discussion or journaling.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

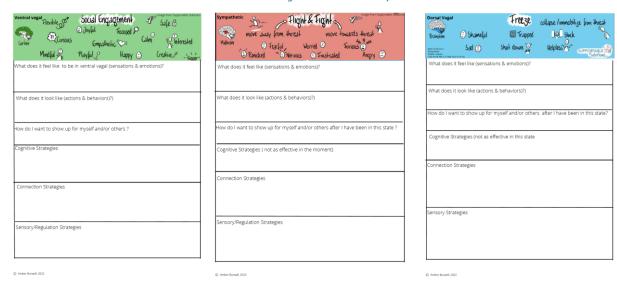
RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND ALL SECONDARY:

Our Names and Our Nervous System States — In this activity we write our names matching our nervous system state! If I am feeling anxious, nervous, edgy, or angry, my letters may be small, pointy, and sharp. The colors might be orange or red! If I am feeling shut down or collapsed, my letters might be blue, very small, hard to read, fuzzy and blurry! If I am feeling calm and safe, my letters may look large, loopy, and open! When we can identify how we sense and feel through art using our own names, this is a regulatory practice! This activity will help others to know why we might be showing behaviors because of the state of our autonomic nervous system!

Who Am I?—In this practice we write out our full names on a large sheet of paper and even decorate and design the letters that best describe you! This is your identity. Then, write your full name below the large decorated one, and next to your name, think of who you are or how you feel in each of the states. You can write descriptions with words or images. Maybe there are songs, poetry, book or movie titles, objects, colors, animals, plants, trees, and characters that resemble you in each of these autonomic states.

ELEMENTARY 4+ AND ALL SECONDARY: (click each image below to view or print)



RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND ALL SECONDARY:

Identifying Our Nervous System States With Our Names For Each Nervous System State!

TOPIC:

AUTONOMIC NERVOUS
SYSTEM: INSIDE OUR BODIES

GUIDING QUESTION:

How does our Autonomic Nervous System hold body memories?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

 <u>CGI Animated Short Film: "Bruised"</u> by Rok won Hwang, Samantha Tu | CGMeetup

Discussion Questions:

- Has your body ever felt it was in danger when it was safe?
- How did it feel when you experienced this?

TASK/LESSON:

Share with the class that even when you think about an unhappy or lonely time or remember and picture in your mind an experience from the past, your ANS does not know the difference between the actual experience and your thoughts and feelings about it today? Sometimes your body feels it is in danger when it is actually safe.

Watch <u>Bruised</u> with the class and provide time to talk about discussion prompts in partners, groups, or as a whole class.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- The Body Keeps The Score: Brain, Mind, and Body in Healing of Trauma by Bessel van der Kolk
- Our ANS And Memories
- ANS and Our Triggers and the Singing Bowl
- Primera Bailarina Ballet en Nueva York Años
 60 Música para Despertar

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM: INSIDE OUR BODIES

GUIDING QUESTION:

How can knowing our Autonomic Nervous System holds body memories help us?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

Discussion Prompts:

How can knowing our ANS holds body memories help us?

TASK/LESSON:

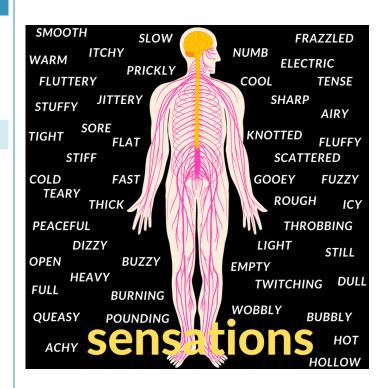
Our bodies and brains are always creating connections, associations and making predictions based on past experiences! Sometimes the places, objects, experiences, and people that create feelings of danger or threat may only be associations or reminders of something that happened to us in our past because of the way they look, sound, or act! Maybe it is their facial expression, clothing, scent, or how they stand and walk? Some places may be safe, but they resemble spaces and places where we experienced feelings or sensations of danger in our ANS. When this association or connection happens, we need to be aware of our autonomic nervous system and think about the accuracy of how our ANS is detecting a place, person, or experience!

Provide time for students to reflect in partners, groups, or as a whole class about the discussion question.

- Are there smells that bother you?
- Are there sounds that are troubling?
- What about facial expressions or pieces of clothing?

EDUCATORS AND STUDENT RESOURCES:

Let's create a sensation word wall or jar so students and staff can recognize sensations that they might be unconsciously holding in our bodies.



- Are there tastes or textures that feel strange?
- When we recognize our sensations that feel activating or triggering, we can prepare our bodies to stay calm and know that this is now and we are safe!

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed



TOPIC:

THE AUTONOMIC NERVOUS SYSTEM: OUTSIDE OUR **BODIES**

GUIDING QUESTION:

What feels safe to us?

What feels threatening to us?

TEACHING TIME: 20 minutes

MATERIALS/PREP:

chart paper with the following information:

SAFETY

- sounds
- tastes
- facial expressions
- specific people
- specific places
- sights
- smells

THREATENING

- sounds
- tastes
- facial expressions
- specific people
- specific places
- sights
- smells

Discussion Prompts:

- What sensations outside of your body create reactions inside your body?
- What outside of your body sends cues of safety to your ANS?
- What outside of your body sends cues of danger or threat to your ANS?

TASK/LESSON:

Today we are going to discuss how our ANS experiences the world outside of our bodies. When we hear certain sounds, taste foods, observe facial expressions, watch the way people stand or walk and observe the environment around us, these people, places, and experiences sometimes activate a reaction from us and we do not understand why. It helps if we think about what places, sensory input, people, and experiences feel safe to us and what feels threatening or dangerous. Provide students with time to reflect on discussion prompts with partners, groups or individually.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

EDUCATOR RESOURCES:

Dr. Mona Delahooke The Polyvagal Theory and the Power of Relational Safety

TOPIC:

THE AUTONOMIC NERVOUS SYSTEM: BETWEEN BODIES EXPERIENCES

GUIDING QUESTIONS:

What feels safe to us?

What feels threatening to us?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Chart paper with the following information:

- SAFETY
 - faces
 - bodies
- THREATENING
 - faces
 - bodies

Discussion Prompts:

- When you are interacting with others, what do safe faces and bodies look like?
- What do unsafe or threatening faces and bodies look or feel like?

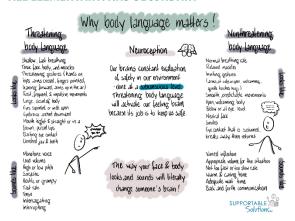
TASK/LESSON:

Today we are going to discuss how our ANS experiences the world between bodies. When we are talking, listening, playing, approaching, and interacting with others, our bodies are always and automatically picking up on cues of safety or danger from other people. Let's talk about nonverbal body language today.

Provide students with time to reflect on discussion prompts with partners, groups or individually.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY



https://drive.google.com/file/d/1zbh8z4GgxKZ4OJXT 4mNgTVIXwoQ23QL9/view?usp=sharing

RESOURCES FOR STUDENTS:

ELEMENTARY 4+ AND ALL SECONDARY:

Students can record their thoughts, feelings, and sensations each morning or throughout the day of how experiences inside, outside, and in-between others have affected their brain and body states. These journal entries can be written, drawn, and shared! Inside the journals, they can paste the image of the polyvagal graph and with post-it notes track their nervous system states throughout the day or for a few weeks.

Provide time for the following discussion prompts:

- We may not be aware of this but...think of people who create feelings of safety in your life?
- Can you share why these people feel safe?
- What people feel exhausting to be around or make you feel uncomfortable?
- What people feel anxious and nervous to your ANS?

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

What people feel calming to you?

CONTINUED

- Who do you trust? Why?
- If someone feels unsafe to you, what sensations are you picking up that feel unsafe?
- What cartoon, book, movie, or Netflix characters feel safe and calming?
- What characters create sensations in your body that feel unsafe or uncomfortable?
- Are there book characters that feel safe to be with?
- What characters in books that you have read feel uncomfortable to your ANS?
- Can you give examples of changes in your behavior based on how people spoke to you?
- How do the tones and sounds of voices affect your behavior?

TOPIC:

NERVOUS SYSTEM
REGULATORS: 90 SECOND
RULE

GUIDING OUESTION:

What is the 90 Second Rule?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

Create an anchor chart called: "90 Second Rule"

TASK/LESSON:

Show the chart called "90 Second Rule" & Ask students:

What do you think this is? Let's write down our answers or guesses! Take guesses about what the chart could mean. Reveal the answer.

DIRECT TEACH: ANSWER: Our brain can let go of negative emotion in 90 seconds. When a person has a reaction to something in their environment, there is a 90 second chemical process that happens in the body; after that, any remaining emotional response is just the person choosing to stay in that emotional loop.

Complete a focused attention practice: Place one arm under your opposite armpit, the other arm hugging your shoulder. Sitting tall in this position, breathing for 90 seconds. Notice: How do you feel after letting go of emotions?

DIFFERENTIATION STRATEGIES:

- sentence stems for discussion questions
- extra wait time before responding to a discussion

RESOURCES FOR STUDENTS & TEACHERS:

SECONDARY AND ELEMENTARY: GRADES 2-12

- <u>Dr. Jill Bolte Taylor- The 90 Second Rule:</u> (first 3 minutes for students) (review)
- 90 SECOND RULE HOW TO MANAGE <u>EMOTIONS EFFECTIVELY</u> Great video for 90 second rule
- <u>Dr. Jill Bolte Taylor- The 90 second life cycle of an emotion</u> (LOVE THIS FOR ALL STUDENTS AND STAFF)

TOPIC:

NERVOUS SYSTEM
REGULATORS: 90 SECOND
RULE

GUIDING QUESTION:

How does the brain let go of negative emotion in 90 seconds?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

- write "cortisol" on the board
- video ready to watch (first 3 minutes-see "resources")

TASK/LESSON:

When you have a negative reaction to something in the environment, you release adrenaline and cortisol. Your brain does not know the difference between you experiencing a negative event or you are thinking the thought. The same release of chemicals takes place. Check out the first 3 minutes of Dr. Jill Bolte Taylor's Ted Talk.

ASK: Does anyone know what it feels like when you are stressed? Cortisol is the thing released in your brain when you feel stress. It can cause you to act in all different ways!

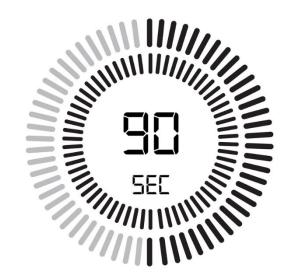
DIFFERENTIATION STRATEGIES:

- sentence stems for discussion questions
- clap out syllables in "cor-tis-ol" to help understanding

RESOURCES FOR STUDENTS & TEACHERS:

SECONDARY AND ELEMENTARY: GRADES 2-12

Dr. Jill Bolte Taylor- <u>The 90 Second Rule: YouTube</u> (first 3 minutes for students) (review)





TOPIC:

FOCUSED ATTENTION PRACTICES

GUIDING QUESTION:

What is a focused attention practice?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

"Focused Attention Practice" written on board

Discussion Prompts:

- How do you feel?
- What do you notice about your body?
- Mind?

TASK/LESSON:

A focused attention practice is an exercise to quiet the body and focus the mind. The practices calm and soothe the limbic brain and allow us to return to a calm baseline. Complete your first focused attention practice as a class. Discuss and reflect after focused attention practice. How do you feel? What do you notice about your body? Mind? Accept positive and negative feedback as this is creating a safe space to share.

Notice who is participating and providing feedback and connect with those students who need support. If students aren't participating, do not redirect during this time. Model regulation by engaging in the practice and then reflect afterwards.

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

Focused Attention Practice

- Begin with tracing our fingers of each hand with an inhale and exhale!
- Start for only 30 seconds or less and build up time as a challenge for the class.
- Always make this a choice and reflect for a minute afterwards
- Brain Breaks and Focused-Attention Practices or Printable Article
- 100 Focused Attention Practices: Word or PDF
- Focused Attention Practice: Backward Palms
- Focused Attention Practice: Push It Away
- Focused Attention Practice: Twisting and
 Swirling
- Focused Attention Practice: Wrist Rotation
- <u>Focused Attention Practice: Focusing on</u>
 Balance
- <u>Focused Attention Practice: Crossing</u>
 <u>Movements</u>
- Focused Attention Practice: Box and the Boat

CONTINUED

DIFFERENTIATION STRATEGIES:

Sentence stems for discuss	sion:
"I feel	"

"My body feels _____"

- Focused Attention Practice: Finger Tracing
- <u>Focused Attention Practice: Breathing</u>
- Focused Attention Practice: Finger Raises
- Focused Attention Practice: Sliding Palms
- <u>Focused Attention Practice: Touch Your</u>
 Fingers
- Focused Attention Practice: Container Hold
- Focused Attention Practice: Blossoming Flower
- Focused Attention Practice: Eye Yoga
- Focused Attention Practice: Deep Dive Breath
- Focused Attention Practice: Head to Belly
- Focused Attention Practice: Old Favorite
- Focused Attention Practice: So What?
- <u>Focused Attention Practice: Lifeline Tracing</u>
- Focused Attention Practice : Box Breathing
- Super-Hero Focused Attention Practice

SUPERHERO MASKS

- Standing up, put on your mask as you imagine it as a superhero mask! It could be a piece of armor from Iron Man or the mask that shields Superman's true identity, it could even be a made-up superhero just for you.
- After you put on your mask strike a power pose and take three deep breaths, hold for a second each and try to extend the exhale if you can.
 - A power pose could be standing with your feet spread apart, hands on hips; ready to take off and fly like Superman; arms flexed like the Hulk; "Boom, boom, fire power!" style; anything you can think of.
 - Helpful tip: breathe through your nose just in case you have coffee breath!
- Now, striking a different power pose imagine a superpower that you would like to share with the world, yourself, someone you care about, or a combination. As we take three more deep breaths like before, imagine breathing out that superpower with each exhale.



TOPIC:

FOCUSED ATTENTION PRACTICES

GUIDING QUESTION:

What is a focused attention practice?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

- "Focused Attention Practice" written on board
- Anchor chart for agreements (see below)

Discussion prompts:

- How do you feel?
- What do you notice about your body?
- Mind?

TASK/LESSON:

- Review the purpose of a focused attention practice. Spend time completing the same focused attention practice from the previous day, adding on a few seconds if students are ready. Discuss and reflect after focused attention practice. How do you feel? What do you notice about your body? Mind? Accept positive and negative feedback as this is creating a safe space to share. Anyone feel differently today than yesterday?
- Co-create an anchor chart with essential agreements for focused attention practices in the classroom. Have students create definitions and agree on essential agreements.
- Participation is a choice
- Let others participate and focus

DIFFERENTIATION STRATEGIES:

sentence stems for discussion: "I feel ____",
"My body feels "

RESOURCES FOR TEACHERS & STUDENTS:

Videos to Support Buy-In:

ELEMENTARY: K-2

- LeBron James Deep Breathing
- The Power of the Mind: NBA Athletes
- Kids Reduce Anxiety Using Deep Breathing
- Instructional Focused Attention Practice

ELEMENTARY 3 - 6

- Celebrities that Meditate
- Teens Using Mindfulness
- LeBron James Deep Breathing
- The Power of the Mind: NBA Athletes
- "Release" Mindful Short
- Under Pressure Mindfulness for Teens
- Kids Reduce Anxiety Using Deep Breathing
- Mindful Moments with JusTme (Clench & Release)

SECONDARY: 7-12

- Celebrities that Meditate
- <u>Teens Using Mindfulness</u>
- LeBron James Deep Breathing
- The Power of the Mind: NBA Athletes
- "Release" Mindful Short
- Under Pressure Mindfulness for Teens

- MindfulSchools.org
- <u>Learn to Breathe Correctly: Why belly</u>
 <u>breathing is the key to health</u>

TOPIC:

FOCUSED ATTENTION PRACTICES

GUIDING QUESTION:

What are the benefits of focused attention practice?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

- "Focused Attention Practice" written on board
- Anchor chart for agreements (from previous lesson)

Discussion prompts:

- How do you feel?
- What do you notice about your body? Mind?

TASK/LESSON:

Focused Attention Practices have many benefits.

- They calm the limbic brain activity and sympathetic nervous system inviting the parasympathetic nervous system in!
- They also activate executive functions in the prefrontal cortex in particular, sustained attention and emotional regulation helping us to create a pause and a bit of reflection.

These two strategies are critical when priming the brain for cognition.

TO DO:

Continuing sharing from video resources from **Day 70-71.** Take time each day at this stage to reflect on how the body and mind feels before, during and after focused attention practice.

- Brain Breaks and Focused-Attention Practices or Printable Article
- 100 Focused Attention Practices: Word or PDF

TOPIC:

FOCUSED ATTENTION PRACTICES

GUIDING QUESTION:

How is focused attention practice impacting me?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

- "Focused Attention Practice" written on board
- Anchor chart for agreements (from previous lesson)

Discussion prompts:

- How do you feel?
- What do you notice about your body? Mind?

TASK/LESSON/STRATEGIES/ACTIVITY:

Continuing sharing from video resources from *Day* **70-71.** Take time each day at this stage to reflect on how the body and mind feels before, during and after focused attention practice.

Create an anchor chart displaying different focused attention practices as you try each one. Before introducing new practices, spend time mastering each focused attention before you move to another one. We want students to feel comfortable and confident with the practices before being introduced to more practices.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to discussion
- sentence stems
- space to process and engage at own comfort level

- <u>Energy and Calm: Brain Breaks and Focused-</u> Attention Practices_ or *Printable Article*
- 100 Focused Attention Practices: Word or PDF

TOPIC:

FOCUSED ATTENTION PRACTICES

GUIDING QUESTION:

How to breathe during focused attention practice?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

- "Focused Attention Practice" written on board
- Anchor chart for agreements (from previous lesson)

Discussion prompts:

- How do you feel?
- What do you notice about your body? Mind?

TASK/LESSON:

Students should be feeling comfortable with the idea of focused attention practice, what it is, and the benefits of participating each day. Let's talk about how to breathe during different times of the day. Which focus attention practice has been your favorite so far?

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to discussion
- sentence stems
- space to process and engage at own comfort level

- <u>Energy and Calm: Brain Breaks and Focused-</u> Attention Practices_ or *Printable Article*
- 100 Focused Attention Practices: Word or PDF

TOPIC:

CALMING THE NERVOUS SYSTEM: PLAY

GUIDING QUESTION:

How does play help us to feel safe and calm?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Discussion Questions:

- Who encourages you and wants you to spend some time playing?
- When is the best time of day for you to play?
- Where are the best places to play? Why?

TASK/LESSON:

When we play, we relieve stressful feelings! A playful moment is a joyful moment! Playfulness is not always easy!

When we are feeling so many sensations and emotions throughout the day, we sometimes worry or feel anxious! Sometimes those around us seem so serious that it feels unsafe to play! When we feel like playing, our brake is on! It is so healthy for our brains and bodies to play! When we play, we are functioning from our ventral vagal pathway and our cortex! It feels good to laugh and be silly! Let's think about those people in our lives that can share our playfulness!

Provide time for students to talk about discussion questions in pairs, groups, or as a whole class.

RESOURCES FOR TEACHERS:

 The vagus nerve: how to engage it — Jessica Maguire

Play is a neural exercise in reciprocal safety!

• The Power of Play for Children's Mental Health and Behavioral Challenges



DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

TOPIC:

CALMING THE NERVOUS SYSTEM: PLAY

GUIDING QUESTIONS:

How do you feel when you play? How do you feel after you play?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Discussion Questions:

- How would you describe play?
- When has playing felt good to you?
- Who were you with and where were you?
- How did you feel before, during, and after play?

TASK/LESSON:

Provide time for students to reflect upon the discussion questions.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

RESOURCES FOR EDUCATORS:

- What does play look like with your students?
- How would your students define play?
- Can we create time during the day or class period for reciprocal play? What does this look like?
 - Board Games
 - o Dual Drawing
 - Circle Games
- <u>37 Fun Circle-Time Games and Activities: A Must</u> <u>for Any Teacher</u>

TOPIC:

CALMING THE NERVOUS SYSTEM: PLAY

GUIDING QUESTION:

How can you find time for more play?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

Discussion Questions (Let's talk about these questions in groups or whole class):

- Is it hard to find time to play?
- What is your belief about play in that should we always play even as we grow older?
- What keeps you from playing more?
- Should we play more in school?

See below for practices:

- Which ones feel playful?
- What can you do to play more?
- How can you make more time for play?

TASK/LESSON:

Allow students time to try out the following focused attention practices they can do with a friend or by themselves. Provide time for students to reflect upon the discussion questions.

Golden Cord — In this FoAP, we imagine a golden cord with a glittering ball attached. This cord connects our chest to our bellies. As we take a deep breathe in, we see the glittering ball move up along the golden cord into our chests and as we exhale, we see the glittering ball move back

down the cord into our bellies. You can imagine this movement as fast or slow as you would like. Try this for one minute as you focus on your breath and the vision of glittering movement.

Dual Lifeline Tracing — As we breathe deeply, we trace the lifelines on each other's hands seeing if we can find a partner rhythm with each other! After 30 seconds, we switch hands and with deep inhales and exhales, we trace the other lifelines on our partner's hands matching the

movements to our breathing.

<u>Energize</u> ► — In this breath exercise, think of a performer preparing for an event. We take a long deep breath in and then exhale quickly and fast. We see athletes using this breath to prime the brains and bodies before a competitive event. It is important to start with 5 or 10 breaths and then build up to 30 but this takes time. This is a powerful breath we can use to energize our brains and bodies when we are feeling tired, unfocused, and sluggish.

CONTINUED

Dual Hand Massage — For one minute, with hand sanitizer or lotion, we begin to give our partner a hand massage for 20 seconds as we intentionally breathe in and out paying attention to our breath and the sensations in our hands and wrists. We then switch and we become the receiver of a hand massage! This is always a choice and I feel younger students will be more comfortable with this co-regulatory activity.

<u>Head to Belly</u> ► — In this FoAP, we place our right hand on our forehead and our left hand on our chest. In this position take three to four deep breaths and as you inhale provide a little pressure to your head and chest. Following three deep breaths, move your hand from your

forehead to your belly keeping your other hand on your chest. Repeat this a few more times! This practice helps to settle the nervous system and also grounds us in our space.

<u>Fist Pumping</u> ► — Stretch arms out to each side (shoulder height) and elbows straight opening and closing our fists with an energizing breath of fire. We begin for 30 seconds and then take a long slow deep breath and begin again for 30-60 seconds. This exercise brings an oxygen flow to the brain as the fingers act like a remote control for the brain waking us up with this repetition. We begin to focus on the movement and breath. Flip our hands over and open and

close the fist again for another minute. This strengthens nervous systems.

<u>Crossing Movements</u> — Make a fist with the thumb inside and straighten arms out to a 60-degree angle. Inhale with straight arms and cross in front of our forehead on the exhale. Inhale with straight arms at a 60-degree angle and cross behind our head. Continue with this powerful

breath as this exercise releases calcium deposits in shoulders and increases an improved blood flow to the brain.

<u>Punch and Grab</u> ► — Standing with our feet about three feet apart, we make a fist with our hands. One arm at a time, we reach in front of us opening our fist on the inhale and closing it and drawing it back to our body on the exhale. We move back and forth with a powerful inhale and exhale opening and closing our fists alternating arms as we can pretend to grab what we need on the strong inhale opening our fist and grabbing as we pull our arms back to our bodies. This is much like a boxing movement with one arm at a time at any speed that feels comfortable to you! The faster you move, the more energy you create.

Shrugging — Shrugging shoulders up and down with a fast breath keeping our neck loose, followed by 5 rotations of the neck in each direction. Improves circulation and the toning of the vagus nerve.

CONTINUED

DIFFERENTIATION STRATEGIES:

extra wait time before responding to a question added visuals to vocabulary sentence stems in response to discussion question posed

RESOURCES FOR EDUCATORS:

SECONDARY STUDENTS AND EDUCATORS

- 7 games to play with teens (that they'll actually love)

 ✓ Printable
- Brains At Play | NPR Ed
- The importance of play | John Cohn | TEDxDelft

TOPIC:

CALMING THE NERVOUS SYSTEM: BREATH

GUIDING QUESTION:

Why does breathe help calm the nervous system?

TEACHING TIME:

15 minutes

MATERIALS/PREP:

Discussion Prompts:

- Has breathing ever helped you calm down?
 How?
- When was a time you tried using breath to calm you? Did it help? Not help?
- How might having this knowledge help you in the future?

TASK/LESSON:

Share with students that deep breathing, from the belly, increases oxygen to the brain and activates the parasympathetic nervous system (the calming system). It re-engages the vagal brake if our brake is off. This will help us feel calmer. Provide students with time to reflect on discussion questions in pairs, groups, or as a whole class.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Why Deep Breathing Is the Fastest Way to Calm You Down | Time_ or Printable Article
- Why Breathing Deeply Helps You Calm Down | Live Science or Printable Article
- Relaxation techniques: Breath control helps quell errant stress response - Harvard Health or <u>Printable Article</u>
- Just Breathe: Body Has A Built-In Stress Reliever
 NPR or Printable Article

RESOURCES FOR TEACHERS AND STUDENTS:

ALL SECONDARY:

- <u>Conquering exam stress: lessons from our bodies</u>
- Why Deep Breathing Is the Fastest Way to Calm
 You Down | Time (Find video embedded in this article)

TOPIC:

CALMING THE NERVOUS SYSTEM: BREATH

GUIDING QUESTION:

How do we breathe for calming?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

chose a breathing strategy to teach

TASK/LESSON:

Using gradual release of instruction, explicitly teach the strategy you choose. Provide ample time for students to practice. Embed taught strategies into your daily routines and procedures.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

- Head to Belly In this focused attention practice, we place our right hand on our forehead and our left hand on our chest. In this position take three to four deep breaths and as you inhale provide a little pressure to your head and chest. Following three deep breaths, move your hand from your forehead to your belly keeping your other hand on your chest. Repeat this a few more times! This practice helps to settle the nervous system and grounds us in our space.
- Focused Attention Practice (FOAP): Finger Tracing
- "Just Breathe" by Julie Bayer Salzman & Josh Salzman (Wavecrest Films)
- Focused Attention Practice (FOAP): Breathing
- Focused Attention Practice (FOAP): Finger Raises
- Focused Attention Practice (FOAP): Deep Dive Breath
- Focused Attention Practice (FOAP): So What?
- Focused Attention Practice (FOAP): Box Breathing

ELEMENTARY KINDERGARTEN-3RD:

- Breathing Makes It Better by Christopher Willard and Wendy O'Leary
- Alphabreaths The ABCs of Mindful Breathing by Christopher Willard & Daniel Rechtschaffen
- breath with me using breath to feel strong, calm, and happy by Mariam Gates
- Breathing is My Superpower: Mindfulness Book for Kids to Feel Calm and Peaceful by Melissa Ortego
- Relationship with Breath
- <u>Sesame Street: Common and Colbie Caillat Sing "Belly Breathe" with Elmo</u>

ALL SECONDARY GRADES 4TH - 12TH

- 4-7-8 Breathing | GoZen!
- Mindful Breathing: A 66 Second Story by GoZen!

TOPIC:

CALMING THE NERVOUS SYSTEM: RHYTHM

GUIDING QUESTION:

How does rhythm help calm the nervous system?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

drum

Discussion Prompts:

- Was the rhythm soft or slow? fast and loud?
- What else did you notice?
- How does your ANS dance or move when it's excited? sad? worried? scared?

TASK/LESSON:

Share with students that we all have a rhythm inside us! Using our rhythm can help our ANS. Using a drum, model a rhythm that matches how your nervous system is feeling. Pass a drum back and forth allowing others to pass at any time. Use the drum to share the rhythm that matches how each person's nervous system is feeling. Provide time for students to reflect upon the discussion prompts.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

Groove On This

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- <u>Calming Your Anxious Mind Through Rhythmic</u>
 <u>Movement | PACEsConnection</u>
- Why Rhythm Rhythm2Recovery
- Perry: Rhythm Regulates the Brain | "Don't Try This Alone"
- <u>Childhood Resilience & The Role of Rhythm |</u>
 Crisis and Trauma Resource Institute

ALL ELEMENTARY:

 Remo + Rainforest Rhythm Kingdom: An Early Childhood Rhythm, Movement And Music Program

TOPIC:

CALMING THE NERVOUS SYSTEM: RHYTHM

GUIDING QUESTION:

What feels calming to your nervous system?

TEACHING TIME:

5 minutes

MATERIALS/PREP:

Discussion Prompts:

When you are feeling rough, anxious, or scared, what types of rhythms feel relaxing or comforting to your ANS?

TASK/LESSON:

Provide students with time to discuss the reflection questions in pairs, small groups, or as a whole class.

DIFFERENTIATION STRATEGIES:

- extra wait time before responding to a question
- added visuals to vocabulary
- sentence stems in response to discussion question posed

RESOURCES FOR STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

Groove On This

To begin, end, or transition through the day, play a variety of rhythms and movements. Allow students to choose colorful scarves and dance around the room together, waving the scarves and feeling the soft sensation as they dance and pass by one another. When the music stops, freeze and take three deep breaths! Help the students notice their postures and the movement they interrupted by freezing. This strategy can be led by the teacher or a student to demonstrate that everyone can mimic a movement or create their own. In these nervous system activities, breathing and movement are incorporated!

ALL SECONDARY:

Have students create an ANS journal to record the classes' ANS rhythms and patterns as well as to share what rhythmic experiences felt safe and calm and what experiences felt unsafe or uncomfortable.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY:

 Body Percussion and Rhythm to Begin Our Day

TOPIC:

EMOTIONS AND THE BRAIN

GUIDING QUESTION:

How do emotions impact our thinking and actions?

TEACHING TIME:

approximately 5-10 minutes

MATERIALS/PREP:

Add "emotions" to word wall with definition (with a visual)

TASK/LESSON:

Emotions are an important part of each day for all of us. What happens in the brain when we experience positive and negative emotions?

CONNECTION: When we take time to engage in focused attention practices each day, this helps create pause when we become overwhelmed with emotions in a difficult situation. Pausing allows us to respond to an incident rather than react to it.

RESOURCES FOR TEACHERS & STUDENTS:

ALL ELEMENTARY:

- Today I Feel Silly and Other Moods That Make My Day - Jamie Lee Curtis
- The Feelings Book Todd Parr
- The Way I Feel Janan Cain
- What Do You Do with a Problem? Kobi Yamada
- What Do You Do with an Idea? Kobi Yamada
- What Do You Do with a Chance? Kobi Yamada

ELEMENTARY: GRADES 3 - 6

Emotions and the Brain

SECONDARY: GRADES 7 - 12

Emotions and the Brain

TOPIC:

EMOTIONS AND THE BRAIN

GUIDING QUESTION:

How do emotions occur in the brain?

TEACHING TIME:

approximately 10-15 minutes

MATERIALS/PREP:

"Inside Out" clip ready to show students

TASK/LESSON:

Watch the Inside Out clip and Turning Red, sharing that tomorrow the whole group will discuss the clips and how we are sharing our emotions.

Discuss the following questions:

Watch what feelings you notice and how they change from the film Inside Out / Turning Red?

When have you felt similar emotions to these characters?

DIFFERENTIATION STRATEGIES:

- Sentence stems for discussion: "I felt the same when..."
- Extra wait time before responding to

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADES K-4

Inside Out - ALL Clips (Sneak Peek)

ALL GRADES

 Video Clips of "Turning Red" - <u>TURNING RED</u> -All Clips (2022) Pixar

TOPIC:

EMOTIONS AND THE BRAIN

GUIDING QUESTION:

How are you sharing your emotions to support well-being?

TEACHING TIME:

approximately 25 minutes

MATERIALS/PREP:

These questions were designed for promoting student discussion, self-reflection, and self-awareness. Dr. Dan Seigel's research reports that, "What is sharable is bearable."

Sadness helped Joy in the film, and your own Sadness can help you.

- How do you cope with Sadness?
- Can you use your Sadness to feel better? How?
- What would happen if we never felt Sadness?
- Is it sometimes good to keep Sadness inside a circle so that it does not spread and get out of control?
 Why?

Fear and Anger can protect and motivate us

- When was Fear needed in your life?
- How did Fear help you?
- What is the perfect amount of Fear?
- What happens to our thinking and problem solving when we carry too much Fear or Sadness?
- How does Anger show up in your brain?
- Has Anger ever helped you?
- How do you typically handle your Anger?

Disgust keeps us from being poisoned physically and socially

- How has the feeling of Disgust helped you?
- How has expressing Disgust hurt your relationships or experiences?

Joy plays the leading role among the feelings in Riley's brain

- Does Joy always play the leading role in our brains?
- What happened when Joy and Sadness left headquarters?
- How do we see Joy in your brain?
- What creates Joy to take over your brain?

CONTINUED

Imagine having no feelings at all

- What would life be like if we didn't have feelings?
- Describe two positive changes in our life if we didn't have feelings.
- Describe two negative changes that could occur in a life with no feelings.

TASK/LESSON:

Let's talk about the Inside Out clip from yesterday and share the emotions we have most often each day and what is causing those in our brains. Here are some questions that will drive our learning over the next two days!

Teaching note: use questions in the "prep/materials" section to guide the discussion" as you see fit for your community

DIFFERENTIATION STRATEGIES:

- provide sentence stems and wait time after each discussion question is posed to the group
- be sure to concretely explain any unfamiliar vocabulary or adjust to make it developmentally appropriate to student's grade level

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADES K-4

Inside Out - ALL Clips (Sneak Peek)

TOPIC:

EMOTIONS AND THE BRAIN

GUIDING QUESTION:

What is emotional contagion?

TEACHING TIME:

approximately 20 minutes

MATERIALS/PREP:

- add "emotional contagion" or "mirror neurons" to word wall or write on the board
- prepare to show videos

TASK/LESSON:

Ask students if they've ever heard of something being CONTAGIOUS and what that means to them

Explain to students the concept of "Emotional contagion": it is the phenomenon of having one person's emotions and related behaviors directly trigger similar emotions and behaviors in other people. This happens because of mirror neurons. After watching the videos (of your choice), spend quiet time reflecting on the question, "What are you sharing?" "How have our emotions been contagious to others before?" (teacher models as necessary)

DIFFERENTIATION STRATEGIES:

- add visuals as necessary for the words "contagion" and "mirror" to build background knowledge and show concrete understanding
- add extra processing or think time before discussing

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADE 5+ SECONDARY: GRADES 6+

- Emotions and the Brain (2:02)
- Are emotions contagious? Powtoon (4:51)

TOPIC:

EMOTIONS AND THE BRAIN

GUIDING QUESTION:

What is emotional contagion?

TEACHING TIME:

approximately 10 minutes

MATERIALS/PREP:

prepare to show videos

STRATEGIES/ACTIVITY:

It is important to be aware of our brain state and what we are sharing as we enter a space. Choose one of the videos from resources and discuss with the whole group. How does emotional contagion impact empathy in our classroom, school, state, country, and world?

DIFFERENTIATION STRATEGIES:

- add visuals as necessary for the words "contagion" and "mirror" to build background knowledge and show concrete understanding
- add extra processing or think time before discussing

RESOURCES FOR TEACHERS & STUDENTS:

ELEMENTARY: GRADE 4 - 5
SECONDARY: GRADES 6+

• Are Your Emotions Contagious? PBS

RESOURCES FOR TEACHERS:

Mirror Neurons part 1



TOPIC:

MIRROR NEURONS

GUIDING QUESTION:

What are mirror neurons?

TEACHING TIME:

approximately 10 minutes

MATERIALS/PREP:

add "emotional contagion" or "mirror neurons" to word wall or write on the board

TASK/LESSON:

Explain Mirror neurons allow us to communicate without talking. Mirroring is one brain reflecting and interpreting the actions, intentions, and emotions of another brain. Essentially, we are human magnets, picking up other's feelings, thoughts and actions subconsciously (or without knowing)

Think of a time in your life when someone's actions or bad mood was felt by you even if you were not directly involved with that person. Share out.

DIFFERENTIATION STRATEGIES:

- add visuals as necessary for the words "mirror" to build background knowledge and show concrete understanding
- add extra processing or think time before discussing

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADE 2-4

• Mirror Neurons from teacher Aimee Collins

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

 Mirror Neurons Allow Us to Understand Each Other <u>Live Science Article</u>

RESOURCES FOR TEACHERS AND STUDENTS:

ALL SECONDARY:

- Dr. Dan Siegel Explains Mirror Neurons in Depth
- What Do Mirror Neurons Really Do?
- Mirror neurons part 1

Introduction For Video (Mirror neurons part 1):

Humans are so good at reading faces and bodies! Let's watch this together and notice all of our emotions shown on our faces and how our bodies respond!

ALL ELEMENTARY:

Mirror Neurons from teacher Aimee Collins

TOPIC:

MIRROR NEURONS

GUIDING QUESTION:

How do mirror neurons work?

TEACHING TIME:

approximately 5 minutes

MATERIALS/PREP:

• cup full of ice water

Discussion Prompts:

- How did this make you feel?
- What did you experience as you watched this person slowly sipping and enjoying the ice cold water?

TASK/LESSON:

Stand in front of the class with a big cold glass of ice water and drink it slowly. Take deliberate sips and watch students. Continue to talk to students about how delicious this water tastes! Take time to process through the whole group discussion.

DIFFERENTIATION STRATEGIES:

add extra processing or think time before discussing

EDUCATOR RESOURCES:

- Can we create other experiences that invite our mirror neurons to activate?
- Watching someone eating a cheesy pizza slice
- Eating creamy ice cream with warm chocolate syrup
- Holding a slimy worm
- What are other experiences that we could create for this experiment? Let's make a list!



TOPIC:

SENSES AND THE BRAIN

GUIDING QUESTION:

How does the brain take in senses?

TEACHING TIME:

approximately 15-20 minutes

MATERIALS/PREP:

- quote below written on chart paper or on board
- student partnerships
- writing journals/paper and pencil
- 5 senses visual available.

TASK/LESSON:

"We see the world not as it is, but as we are conditioned to see it." What are our senses and how do we use them each day?

TO DO: In one minute, draw or write down everything in this classroom you are taking in through sight, sound, touch or smell! Share and compare your one-minute reflection with a peer. What are you conditioned to see? In other words, what are some things that you sense without even thinking about it? Have students share.

DIFFERENTIATION STRATEGIES:

- remind of 5 senses with visuals
- Sentence Stems for share:
 - One thing I smell...
 - o One thing I see/saw...
 - o One thing I taste..., etc.

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY GRADES 5+ AND SECONDARY: GRADES 6-12

Sentis: Limitations of the Brain: YouTube Link

RESOURCES FOR TEACHERS:

How Do We See? YouTube Link

RESOURCES FOR STUDENTS:

ELEMENTARY AND MIDDLE SCHOOL

- Senses and the Brain for Kids | Science Lesson for Grades 3-5 | Mini-Clip
- The Five Senses for Kids | Sight, Taste, Smell, Hearing, and Touch

TOPIC:

SENSES AND THE BRAIN

GUIDING QUESTION:

What does the brain do with sensations?

TEACHING TIME:

5 - 10 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: brain, regulate, dysregulate, connect, brainstem

Discussion Question:

 What is a "relationship"? What are some important "relationships" you have in your lives?

TASK/LESSON:

Show the brain anchor chart and review parts of the brain, specifically the BRAIN STEM

Explain that the brain stem takes in the sensations from the world around you. Perception of these sensations helps in regulating or dis-regulating our brain state. Humans are intended to connect with one another, but before we can connect in a relationship the brain stem must be regulated.

DIFFERENTIATION STRATEGIES:

- teacher modeling of important relationships
- sentence stem: "An important relationship in my life is.."
- Vocabulary written out clearly as reference

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY GRADES 4+ AND SECONDARY: GRADES 6 - 12

The 3 Parts of the Brain: YouTube Link

SECONDARY STUDENTS AND EDUCATORS

Our Brains and Bodies are always in relational communication. We can watch this with our students discuss the communication and relational connections our brains create producing how we think, feel and sense our worlds in all moments

 3 Brain Systems That Control Your Behavior: <u>Reptilian, Limbic, Neo Cortex | Robert</u> <u>Sapolsky</u>

TOPIC:

SENSES AND THE BRAIN

GUIDING QUESTION:

How do sensations impact our perception of the environment we are living in?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- 5 senses visual available

Key Vocabulary:

- perception, sense, triggered
- 5 senses visual available

TASK/LESSON:

The brain can become overwhelmed by the amount of information there is to take in from the environment. Perception makes us aware of what is happening in our environment and attention helps focus on what is important in the environment.

TO DO: What is your strongest sense? What is your weakest sense? Can you recall an emotion from one of your senses being triggered? Get with a partner to share and provide feedback. Discuss as a whole group.

DIFFERENTIATION STRATEGIES:

- remind of 5 senses with visuals
- Vocabulary written out clearly as reference
- Sentence Stems:
 - o "My strongest sense is..."
 - "My weakest sense is..."
 - o "I get triggered when..."

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY GRADES 4+ AND SECONDARY: GRADES 6 - 12

The 3 Parts of the Brain: YouTube Link

TOPIC:

STRESS AND THE BRAIN

GUIDING QUESTION:

What is stress?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: stress

TASK/LESSON:

Begin by discussing stress whole group. What is stress? Have students share their definition. How does your body feel when it is stressed? What sensations do you have? Explain to students that sometimes when we are feeling anxious, worried, angry, disgusted, or sad, we cannot always know exactly where we feel these emotions or even explain them! Sensations are physical feelings and these we can name! Naming the sensation allows us to acknowledge the stress we are feeling. Here are some examples: tired, tense, itchy, cold, icy, tingly, full, numb, frozen, flowing, goose-bumpy, butterflies, suffocating, closed, etc. What other sensations can you think of?

- What we can name, we can tame.
- What is sharable is bearable!

DIFFERENTIATION STRATEGIES:

- Vocabulary written out clearly as reference
- Sentence Stems: "I feel stressed when..."

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY GRADES 4+ AND SECONDARY: GRADES 6 - 12

- Video: <u>How Stress Affects the Body</u>
- Video: <u>How stress affects your body Sharon</u> <u>Horesh Bergquist</u>

TOPIC:

STRESS AND THE BRAIN

GUIDING QUESTION:

What is the stress response system?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: stress, stress response system
- Video ready to play for whole group

TASK/LESSON:

Our bodies have a stress response system that is supposed to take care of us under times of stress but sometimes it goes on overload and keeps pumping out stress hormones. The stress response system is the fundamental reorganization of how the brain manages perception. We have built in attachment programs that motivate us to seek out positive bonds with caring adults. A healthy stress response system supports cognitive flexibility, imagination, and empathy.

Let's watch!

DIFFERENTIATION STRATEGIES:

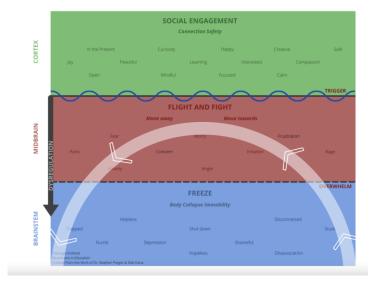
- extra processing time before discussions
- pause and process video in chunks

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+
SECONDARY: GRADES 6 - 12

• Video: How Stress Affects the Body

Breathing and Moving help us to relieve stress and this is why we are learning about focused attention practices!



TOPIC:

STRESS AND THE BRAIN

GUIDING QUESTION:

What is the stress response system?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: stress response system, hormones, attachment
- Video ready to play for whole group

TASK/LESSON:

Our bodies have a stress response system that is supposed to take care of us under times of stress but sometimes it goes on overload and keeps pumping out stress hormones. The stress response system is the fundamental reorganization of how the brain manages perception. We have built in attachment programs that motivate us to seek out positive bonds with caring adults. A healthy stress response system supports cognitive flexibility, imagination, and empathy.

Let's watch!

DIFFERENTIATION STRATEGIES:

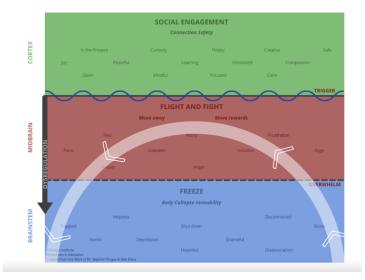
- extra processing time before discussions
- pause and process video in chunks

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3+
SECONDARY: GRADES 6 – 12

Managing Stress: Brainsmart

Breathing and Moving help us to relieve stress and this is why we are learning about focused attention practices!



TOPIC:

STRESS AND THE BRAIN

GUIDING QUESTION:

How can we support a healthy stress response system?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: brain stem, regulation
- Video/music ready to play during regulatory activity (see below)

TASK/LESSON:

Regulation occurs in the brain stem and it is not something we are born with. We learn to regulate through experiences with others. We model how to regulate and we support regulation through emotional contagion when we feel regulated (calm). Discuss and share with the whole group what regulates (calms) you. It can be helpful to identify a regulating activity when calm to help support emotional regulation when triggered.

Together, practice something that regulates many people:

Japanese Method of relieving stress/ thumb holds anxiety, first finger holds fear, middle finger holds anger, ring finger holds sadness, and pinky finger holds optimism and our self-esteem. As we listen to soft instrumental music about 60 to 80 beats per minute holding each finger for 30 seconds to one minute we can dampen the stress response!

Whole group share out: How did that feel? (It felt...)

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+
SECONDARY: GRADES 6 - 12

Music for relaxation, studying and dampening the stress response: 2 Hour Study Music (YouTube)

- Sentence Stems: "Something that calms me..." "Something that regulates me is...
- Teacher model with example of what is regulating for them



TOPIC:

REGULATION

GUIDING QUESTION:

What does it mean to regulate?

TEACHING TIME:

15-20 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: regulation, brain

SETUP REGULATION STATIONS/ACTIVITY:

- Taking deep breaths brings an oxygenated glucose blood flow to our frontal lobes. Taking just three deep inhales and exhales calms the emotional brain.
- Movement is critical to learning, as it activates several areas of the brain at once while calming the brain. Clap out rhythms and have students repeat. The collective sound brings a sense of community to the classroom.

TASK/LESSON:

Explain that it can be helpful to identify a regulating activity when calm to help support emotional regulation when triggered. The next couple of days, we will spend time in regulation stations discovering what feels good. We will spend time reflecting after each station; sharing how these activities make your body and mind feel.

Spend 3-4 minutes participating in the activity and then 1-2 minutes reflecting and sharing out noticings.

Brainstorm Other Regulation Station Ideas: word search, coloring, puzzle, stacking cups, take a walk, stationary bicycle, yoga, Legos, and more!

DIFFERENTIATION STRATEGIES:

- Sentence Stems: "Something that calms me..." "Something that regulates me is...
- Teacher model with example of what is regulating for them

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+ | SECONDARY: GRADES 6 - 12

TOPIC:

REGULATION

GUIDING QUESTION:

What does it mean to regulate?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: regulation, brain, triggered
- Lotion (to pass out)

SETUP REGULATION STATIONS/ACTIVITY:

- Pass out a drop of lotion, and for 90 seconds students give their hands and fingers a massage, noticing their palms, fingertips, and any sensations that feel uncomfortable or stiff.
- Ask students to rock along their spine to help them feel present in their bodies. This provides a soothing rhythm that subtly grounds them with sensation and movement.

TASK/LESSON:

It can be helpful to identify a regulating activity when calm to help support emotional regulation when triggered. The next couple of days, we will spend time in regulation stations discovering what feels good. We will spend time reflecting after each station; sharing how these activities make your body and mind feel.

Spend 3-4 minutes participating in the activity and then 1-2 minutes reflecting and sharing our noticings.

DIFFERENTIATION STRATEGIES:

Sentence Stems: "Something that calms me..." "Something that regulates me is...

Teacher model with example of what is regulating for them

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+
SECONDARY: GRADES 6 - 12

TOPIC:

REGULATION

GUIDING QUESTION:

What does it mean to regulate?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: regulation, brain, triggered
- Lotion (to pass out)

SETUP REGULATION STATION/ACTIVITY:

- Placing our fingers on our throats, we begin the day with a sound or class chant and feel the vibration of our vocal cords. This gives everyone a chance to participate and to see how we can mimic different animals, instruments, and random classroom sounds such as papers crinkling.
- The students sit with their legs straight out and begin wiggling their toes and ankles, shaking knees
 and thighs, rotating shoulders, arms, and finally their heads, keeping all body parts moving at the
 same time. Then we reverse the process and stop our heads, arms, shoulders, and on down. This
 gives children a great body scan and a sequence for working memory.

TASK/LESSON:

It can be helpful to identify a regulating activity when calm to help support emotional regulation when triggered. The next couple of days, we will spend time in regulation stations discovering what feels good. We will spend time reflecting after each station; sharing how these activities make your body and mind feel.

Spend 3-4 minutes participating in the activity and then 1-2 minutes reflecting and sharing out noticings.

DIFFERENTIATION STRATEGIES:

- Sentence Stems: "Something that calms me..." "Something that regulates me is...
- Teacher model with example of what is regulating for them

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+
SECONDARY: GRADES 6 - 12

TOPIC:

REGULATION

GUIDING QUESTION:

What does it mean to regulate?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart (from previous lessons if available)
- Key Vocabulary: regulation, brain, triggered

SETUP REGULATION STATIONS/ACTIVITY:

- Sometimes I'll put on music and give the students old scarves, and we'll dance around the room waving the scarves and feeling the soft sensation as we dance and pass by one another. When the music stops, we freeze and notice our postures and movements. This strategy can be led by the teacher or a student to see if we can mimic a movement or create our own.
- Listen to calming music (60 beats per minute)

For our Older Students - Discussion Questions: (Break into pairs or small groups for these questions)

- What feels calming to your brain?
- Can you list three practices that you implement that work for calm safety?
- What are two or three practices you have read or heard about that you would not want to try?
- What are two or three practices you would be willing to try that you have not in the past?

TASK/LESSON:

It can be helpful to identify a regulating activity when calm to help support emotional regulation when triggered. The next couple of days, we will spend time in regulation stations discovering what feels good. We will spend time reflecting after each station; sharing how these activities make your body and mind feel.

Spend 3-4 minutes participating in the activity and then 1-2 minutes reflecting and sharing out noticings.

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+ | SECONDARY: GRADES 6 - 12



TOPIC:

ENERGIZING FOCUS ATTENTION PRACTICES

Energizing Focused Attention Practices are also known as "Brain Intervals" as they wake up our brains and nervous systems so we can pay attention, focus, and remember what we are learning.

GUIDING QUESTION:

What is a brain interval? A brain interval is also an energizing focused attention practice.

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 9+

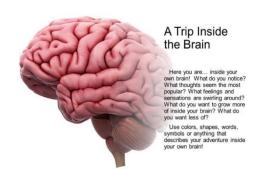
- Reticular Activating System_(Time Marker: 4:13)
- 2-MINUTE NEUROSCIENCE: THE BRAINSTEM

RESOURCES FOR TEACHERS:

• Energy and Calm: Brain Breaks and Focused-Attention Practices or Printable Article

Examples of Energizing Focused Attention Practices:

Seventh grade quieted their nervous systems with the warmth and slow breath of hand warmers followed by tapping into the cortex with GROUP WORK! Groups of four wrote out each of their first names in one long word... so if I were with Ti'asha, Natalie and Emily (my name) our word looked like: Tiashalorinatalieemily (We gave the students one minute to create this long word), then for about 10 minutes, as a group, they created as many words as they could from this long word! The challenge was to work



together! Our prefrontal cortexes were firing, we had fun, we were moving and WORKING TOGETHER! This was challenging but we were building sustained attention along with working memory and emotional regulation skills! THIS IS an energizing Focused Attention Practice that is Collaborative

In this practice, we focused on a close-up of a piece of food, an animal, and objects, and then we guessed what these could be. We then showed a bit more of the animal, object or piece of food until they guessed or were ready to see the whole image. We then had students pick an object from around the room and they drew three images of this object showing a magnified close-up, followed by a larger part of the image and then the whole image. They chose to work alone or in pairs and they loved this!

- Focused Attention Practice (FOAP): Fist Pumping
- <u>Focused Attention Practice (FOAP): Punch and Grab</u>
- Focused Attention Practice (FOAP): Energize
- Focused Attention Practice (FOAP): Nostril Breathing

DIFFERENTIATION STRATEGIES:

• clap out or tap "brain interval"

TOPIC:

ENERGIZING FOCUS
ATTENTION PRACTICES

GUIDING QUESTION:

What is a brain interval?

TEACHING TIME:

5-10 minutes

MATERIALS/PREP:

- "Brain Interval" written on the board
- Brain anchor chart (from previous lessons)
- List of Focused Attention Practices

TASK/LESSON:

The purpose of a brain interval is to stimulate the reticular activating system located in the brain stem. When we begin to lose attention, no learning can occur. The brain intervals bring novelty and curiosity and a brief state of confusion which is healthy for activation while learning in robotic ways can lull the brain to sleep! Our brains need an interval of time, to soak in new information and this is also why brain intervals are so important to learning!!

Make sure to let go of behaviors if students aren't participating and focus on the positive. *Do not force participation*.

DIFFERENTIATION STRATEGIES:

• clap out or tap "brain interval"

- Pinterest: 130 Brain Break Activities
- Brain Breaks 20 awesome ways to energize
 your students FAST!
- Over 100 Brain Teasers for Kids
- From Your Seat Brain Breaks
- Brain Teasers for each Cognitive Ability:
 Perception, Attention, Memory and more

TOPIC:

ENERGIZING FOCUS
ATTENTION PRACTICES

GUIDING QUESTION:

What are the benefits of brain intervals/ energizing FoAP?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- "Brain Interval" written on the board
- Vocabulary: brain stem, social
- Brain anchor chart (from previous lessons)
- List of Focused Attention Practices

TASK/LESSON:

Use brain intervals to stimulate the brain stem and bring focus and alertness back to the conscious mind. Brain intervals give students the chance to develop and apply social competence. A brain break allows students to rest and recharge, while simultaneously learning to cooperate, communicate, and compromise. Frequent breaks boost attentiveness in class and maximize learning.

DIFFERENTIATION STRATEGIES:

- preview vocabulary ahead of time
- add visuals to complex vocabulary to increase understanding

- Pinterest: 130 Brain Break Activities
- Brain Breaks 20 awesome ways to energize your students FAST!
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- From Your Seat Brain Breaks
- Brain Teasers for each Cognitive Ability: Perception, Attention, Memory and more

TOPIC:

ENERGIZING FOCUS
ATTENTION PRACTICES

GUIDING QUESTION:

How are brain intervals impacting me?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Co-create an anchor chart showing brain intervals and add to list throughout the school year

TASK/LESSON:

Create an anchor chart displaying different brain intervals as you try each one. Remember brain intervals should be a familiar activity, but not scheduled. Brain intervals should be used as needed and novel.

Take time each day at this stage to reflect on how the body and mind feels before, during and after brain intervals. Notice as students return to work focus, alertness and time on task.

DIFFERENTIATION STRATEGIES:

Sentence stems or extra processing during reflection discussions:

"I felt because..."

- Pinterest: 130 Brain Break Activities
- Brain Breaks 20 awesome ways to energize your students FAST!
- Over 100 Brain Teasers for Kids
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- Brain Teasers for each Cognitive Ability:
 Perception, Attention, Memory and more

TOPIC:

ENERGIZING FOCUS
ATTENTION PRACTICES

GUIDING QUESTION:

When is a good time to regulate and provide myself with independent brain intervals/ energizing FoAP?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Co-create an anchor chart showing brain intervals and add to list throughout the school year

TASK/LESSON:

Incorporate brain intervals into your daily schedule.

REMEMBER THE RULE:



STUDENT'S AGE + 2= AMOUNT OF TIME TO GET UP AND MOVE

DIFFERENTIATION STRATEGIES:

Sentence stems or extra processing during reflection discussions: "I felt ... because..."

- Pinterest: 130 Brain Break Activities
- <u>Brain Breaks 20 awesome ways to energize</u> your students FAST!
- Over 100 Brain Teasers for Kids
- From Your Seat Brain Breaks
- Brain Teasers for each Cognitive Ability:
 Perception, Attention, Memory and more



TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What is neuroplasticity?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuroplasticity, neural
- Rubber band or visual of plasticity (something that can grow, change, and move)
- Video ready to play

TASK/LESSON:

Show the word "neuroplasticity" and explain its meaning. Neuroplasticity is the brain's ability to reorganize itself by forming new neural connections through experiences. Students spend an average of 1000 hours a year at school. As teachers, we know behaviors are hard-wired, but we also know that because of neuroplasticity and the important role school plays in young people's lives, we are able to share knowledge with students to change thinking. Show video and discuss learnings/take aways

DIFFERENTIATION STRATEGIES:

- Clap out "neuroplasticity" and practice saying it more than once
- Refer to any previous visuals to activate background knowledge
- In five minutes, how many words can you create out of the word (neuroplasticity?)

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3 - 5

SECONDARY: GRADES 6+

• Sentis: Neuroplasticity: Brain Animation Series

This is excellent for adults and secondary and can be modified for younger students!

• Two Minute Shifts: The 2-Minute Rule to Building Habits | James Clear

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What is neuroplasticity?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuroplasticity, neural
- Rubber band or visual of plasticity (something that can grow, change, and move)
- <u>Video</u> ready to play

TASK/LESSON:

Continue building on yesterday's lesson about neuroplasticity. Need an example of a brain rewired? Take a look at the Backwards Brain Bicycle and then reflect and share as a whole group. What habits are helping and/or hurting you?

DISCUSS AS A GROUP: Choose a habit (personally or within school) you are going to try to rewire for a week. Track those new neural pathways.

DIFFERENTIATION STRATEGIES:

- clap out "neuroplasticity" and practice saying it more than once
- Refer to any previous visuals to activate background knowledge

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY:

- The Neuroscience of Learning
- <u>Neuroplasticity</u> This is created by students for younger students!

SECONDARY: GRADES 6+

• Backwards Brain Bicycle: <u>YouTube Link: 7:57</u>



TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What circuits are you firing and wiring?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuroplasticity, neuron
- Rubber band or visual of plasticity (something that can grow, change, and move)
- Video ready to play

TASK/LESSON:

Watch video from resources and discuss circuits in your brain that are strong and connected. These strong circuits are your habits (neurons that are firing and wiring together)

DISCUSS: What is something you do well? Discuss a challenge for you or something you would like to get better at!

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language
- Processing time before responding to discussion
- Sentence Stems: "One thing I do well is.."

RESOURCES FOR TEACHERS AND STUDENTS:

VIDEO ON FIRING CIRCUITS: <u>Neurons and What They</u> <u>Do (1:56)</u>

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What is a neuron?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuroplasticity, neuron
- Rubber band or visual of plasticity (something that can grow, change, and move)
- Chose relevant videos to play for appropriate age group

TASK/LESSON:

Direct teaching about a neuron: A neuron is a cell in the brain that receives information and passes it along. A single neuron is useless; as it requires millions of neurons to transmit information. When neurons receive and send messages, they transmit electrical impulses across the synaptic gap. The human brain has 86 BILLION neurons.

DIFFERENTIATION STRATEGIES:

Refer to any previous visuals to activate background knowledge

Focus on the visuals in the video instead of language

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3 - 5

- Neuron Song: <u>Neuron Song</u>
- 2 Minute Neuroscience: What is a Neuron?
- Neuron Models: <u>Neuroscience for Kids: Make a</u> Neuron
- Neurons for Everyone!: The Neuron
- What Is A Neuron?

SECONDARY: GRADES 6+

- Structure of a Neuron: <u>The Neuron</u>
- Neuron Song
- 2 Minute Neuroscience: What is a Neuron?
- Neuron Models: <u>Neuroscience for Kids: Make a</u> Neuron
- Neurons for Everyone!: The Neuron
- What Is A Neuron?

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

How do neurons work?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuroplasticity, neuron
- Rubber band or visual of plasticity (something that can grow, change, and move)
- Chose relevant videos to play for appropriate age group

TASK/LESSON:

We will play a game today and connect neurons to what we know about telephones.

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3 - 5

- Neuron Song: Neuron Song
- What is a neuron? <u>2 Minute Neuroscience:</u> What is a Neuron?
- Neuron Models: <u>Neuroscience for Kids: Make a Neuron</u>
- Neurons for Everyone: <u>The Neuron</u>
- What Is A Neuron?: What Is A Neuron?

SECONDARY: GRADES 6+

- Structure of a Neuron: The Neuron
- Neuron Song
- 2 Minute Neuroscience: What is a Neuron?
- Neuron Models: <u>Neuroscience for Kids: Make a</u> Neuron
- Neurons for Everyone!: The Neuron
- What Is A Neuron?

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What is a neuron?

TEACHING TIME:

30 minutes

MATERIALS/PREP:

- gather candy: licorice, M&M's, etc. (see activity in lesson)
- Video ready
- Make/print visual in material section for reference during the activity

TASK/LESSON:

Explain that we will continue to discuss neurons today. Explain that one neuron by itself means nothing. It takes hundreds of thousands of neurons connecting just to remember your name! Open with this video and discuss after stopping and starting at different points or give students certain terms and definitions to listen to as they capture the answer as they listen!

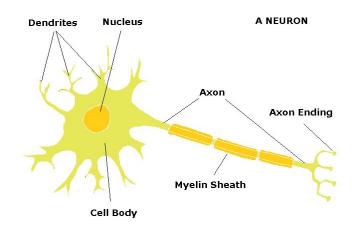
ACTIVITY: Show the visual of a dendrite and keep it visible. Explain to students that today we will make candy models of neurons with licorice, M&M's, and different candies that resemble the cell body, dendrites and axons!

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language

RESOURCES:

What Is A Neuron?: What Is A Neuron?



(print out/draw/copy anchor chart or visual above)

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What are synapses, dendrites and axons?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuron, synapse
- Chose relevant videos to play for appropriate age group

TASK/LESSON:

A synapse is a chemical message sent between two neurons connecting them to one another (like when we send a Snap Chat). After watching the video, create human synapses. Create a circuit as we link hands and arms mimicking an axon and dendrite. As we link arms and then hands, squeeze the person's hand next to you indicating a signal has passed.

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2 - 3

Brain Jump with Ned the Neuron

ELEMENTARY & SECONDARY: GRADES 4+

- Synapses: Neuron Synapse
- 2 Minute Neuroscience: Synaptic Transmission
- Brain Jump with Ned the Neuron

Real Images of Neurons Connecting:

- Migrating neuronal cells
- <u>FINDING THAT CONNECTION neurons</u>
 <u>connecting to one another in a Petri dish -</u>
 <u>growth cones</u>
- Change our thoughts, Change your mind-Neuron Connections 2
- How Your Thoughts Work- <u>Neural Connections</u>

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What am I choosing to rewire?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuron, synapse, neuroplasticity (and all previous vocabulary from unit)

TASK/LESSON:

Today is a day for neuroplasticity reflection. A week ago you chose a habit (personally or from within school) and tried to rewire for a week.

ASK & DISCUSS: How did you do? What did you notice? Was it difficult? Did it get easier? What are your plans moving forward? Can you think of other behaviors that could benefit from some rewiring?

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language
- Sentence Stem and extra processing time for discussions

RESOURCES FOR TEACHERS AND STUDENTS:

Real Images of Neurons Connecting:

- Migrating neuronal cells
- <u>FINDING THAT CONNECTION neurons</u>
 <u>connecting to one another in a Petri dish -</u>
 <u>growth cones YouTube</u>
- Change our thoughts, Change your mind-Neuron Connections 2

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

What does neuroplasticity look like in the brain?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: neuron, synapse, neuroplasticity (and all previous vocabulary from unit)
- Circuit Ball Toss Directions (visible or ready to share)

TASK/LESSON:

- Break the word neuro-plasticity apart.
 - What does neuro mean? (brain)
 - What does plastic mean? (malleable or able to change)
 - o What does neuroplasticity mean?
- Explain activity directions (see materials) This activity demonstrates that repetition and practice create a fast circuit of connection and the more we do anything the better we become!

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language
- Sentence Stem and extra processing time for discussions

RESOURCES FOR TEACHERS AND STUDENTS:

ACTIVITY: CIRCUIT BALL TOSS

Form a circle and choose a leader who will begin and end the ball toss. That leader, often the teacher, will time the circuit from start to finish. There is one rule! You must remember the person who you throw the ball to in the circuit. Before starting, all participants stick both hands straight out in front of the body (to show they have not received the ball). After you have received the ball and thrown it, you place your hands behind your back. The circuit is complete when it is tossed back to the leader who started the circuit. Round 1: What did you notice about our circuit? Was it efficient? Why or why not? Complete the circuit following the same circuit two more times, noticing time changes and other aspects making the circuit more efficient. This activity demonstrates that repetition and practice create a fast circuit of connection and the more we do anything the better we become!

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

How does sleep help neuroplasticity?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

Discussion Prompts:

- Do you sleep enough at night?
- Do you wake feeling rested?
- How do you feel when you do not get adequate sleep? What do you notice?
- How can you try to get more sleep?

TASK/LESSON:

Share with the class that sleep, particularly deep sleep, is needed for the brain to grow and for neuroplasticity to occur. Our brains rest and restore during times of deep sleep and this is when neuroplasticity occurs. Experience and sleep are both needed for our brains to grow!

Provide time for students to discuss and reflect upon their sleep using discussion prompts.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- How Your Nervous System Works & Changes |
 Huberman Lab Podcast #1 (time marker 41:20)
- Primed to Sleep: The Dynamics of Synaptic Plasticity Across Brain States | Frontiers in Systems Neuroscience
- The Science of Sleep: Understanding What Happens When You Sleep | Johns Hopkins Medicine

RESOURCES FOR STUDENTS:

ELEMENTARY 4+ AND ALL SECONDARY:

- The Superpowers of Our Sleep
- From ZZZs to AAAs: Why Sleep Is an Important Part of Your Study Schedule
- A Good Night's Sleep: Necessary for Young Minds
- <u>Do House-Elves Clean Your Brain While You Sleep?</u>



TOPIC:

THE HERO'S JOURNEY AND **NEUROPLASTICITY**

GUIDING QUESTION:

What is The Hero's Journey with the brain in mind?

TEACHING TIME:

20 minutes

MATERIALS/PREP:

- The Hero's Journey according to Joseph Campbell - video by Matthew Winkler and Kirill Yeretsky
- chart paper

Discussion Prompts:

- Can you think of an experience that changed you?
- Can you think of a new skill or habit you learned?
- Can you think of a skill, habit, or anything that you guit doing, and how that changed you?
- How do you think learning more deeply about the Hero's Journey will help you?

TASK/LESSON:

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

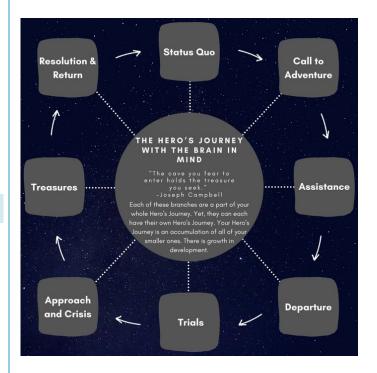
After watching the video with your class, create the hero's journey cycle on chart paper - status quo, call to adventure, assistance, departure, trials, approach and crisis, treasures, resolution, and return. Share that as we journey into and inside our fears, anxieties, restlessness, and ordinary moments in life - our experiences. We are feeling

RESOURCES FOR TEACHERS:

The HERO'S JOURNEY – Joseph Campbell

ALL SECONDARY:

- The Hero's Journey with the Brain in Mind "The cave you fear to enter holds the treasure vou seek."
- Mirror neurons and why we love the Hero's journey - Recknsense



CONTINUED

and sensing creatures who move through our worlds through the sensations and emotions that drive our thoughts, beliefs, and the way we see the world. We may have day long, week long, month long, and years long hero journeys. They are a part of our life and provide the stories of our lived experiences! We live the Hero's Journey in our ordinary worlds! Each and every experience changes our brains and bodies. This is called neuroplasticity. Neuroplasticity means every experience we encounter changes our brains and nervous systems affecting our thoughts, feelings, and sensations. We are changing each and every moment.

Provide time for students to reflect upon the discussion prompts with partners, small groups, or as a whole class.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

BRIEF EXPLANATION

- STATUS QUO: We begin with the acknowledgement of our ordinary existence.
 Life feels neutral.
- CALL TO ADVENTURE: We feel a felt yearning, challenges, and unfamiliar territory with unpredictable outcomes that call out to us with velocity. Door feel to be opening but we are unsure about the unknown.
- ASSISTANCE: We realize that we'll need the help of someone or something who
 is possibly more experienced, or who has shared similar challenges with these
 struggles before us.
- DEPARTURE: It's time to step outside of our comfort zone and try new ways being with the situations or individuals that have stimulated change and challenge.
- TRIALS: We now begin to feel and sense the intensity of the growing conflict
 and challenges as the old ways of being and doing begin to crumble away.
- APPROACH AND CRISIS: This is the hour where we approach our worst fear. W
 intuit that a change in relationship, environment, dialogue, circumstance, or
 physical movement is necessary.
- TREASURES: We claim our treasures by trying on new perspectives, challenge
 old thought systems, while integrating a sense of self (developing a personal
 power) that can temporarily or permanently redefine our experiences and
 relationships.
- RESOLUTION AND RETURN: As we leave the special world and return to our
 ordinary worlds, we now begin to see how we can transform obstacles into
 doorways, which is good for us who have had a lot of obstacles; because we
 can now embrace lots of doorways.

TOPIC:

HERO'S JOURNEY

GUIDING QUESTION:

What does our status quo look like right now?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Art materials, Journals, Chart Paper

TASK/LESSON:

SAY: Let's think about our lives right now - our status quo!

TURN AND TALK: Provide 1-3 minutes for students to discuss the following questions with partners:

What feels safe and comfortable right now?

Is there anything that is exciting to me at this time?

Can we draw or act out what our status quo looks like today?

Pick a friend or family member and share their status quo?

MORE STRATEGIES

SAY: How would you describe your life right now?

MODEL: Share with students your drawing of "today." Discuss the colors, lines, and objects/people you added.

SAY: If you could draw "today", what colors would it be? What lines and shapes describe today? What places, people, animals, or thing are a part of your "today/"

CREATE: Provide students with needed supplies. Provide time for students to create their "today."

SUPPORT: Provide support to students as needed.

RESOURCES FOR TEACHERS:

SAY: Today we are going to talk about the status quo! This is when we begin with the acknowledgement of our ordinary existence. Life feels neutral, and we may be functioning from blended brain and body states of felt safety, with a bit of emotional excitement originating from our sympathetic or fight/flight pathway. We are still processing information, experiences, and acting upon our present moments. In this state, our restlessness or discontent may be slightly felt, but we continue to move through life with automaticity and robotic-like living. We are not questioning much about the experiences we are embracing in this initial part of the journey. We are aware of our personal lives and the relationships and experiences that coexist with our responsibilities.

SAY: What do you think status quo means? Let's guess and discuss!

CLASS DISCUSSION: Engage in a class discussion with students about status quo.

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

How do you feel in your body when you expect things to change?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Art materials, Journals, Chart Paper

TASK/LESSON:

How do you feel in your body when you are expecting something to change?

Students may want to draw, paint or journal their responses.

Provide students with time to share their drawings of today with others.

THINK-PAIR-SHARE: Provide students with 30 seconds to think. Have them share responses with a partner for 30 seconds.

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS:

As our students go through their Hero Journeys, we are able to join them with our own reflections.

- When was a time when you felt a call to adventure?
- How did you feel at that moment? What do you remember feeling in your body? What was going on in your head?
- What led to that point?
- Did you notice that this was a call to adventure at the time? Did you realize how monumental that moment would end up being for you at the time?
- What were your doubts during this stage? What were your hopes?
- Where would you have identified your brain and body state to be at this moment? What resources or supports did you need, or do you need in this state?

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

What is the adventure stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

TASK/LESSON:

SAY: As we begin our Hero's Journey, it is in this first stage that there is felt yearning, challenges, and unfamiliar feelings, places, sensations, and thoughts with unpredictable outcomes that call out to us. This is called the adventure stage. Has anyone ever felt those feelings? Stand up if you have.

RESPONSE: Allow students to respond in unison.

SAY: Doors feel to be opening and we may feel unprepared to venture into the unknown, but we feel called to explore, to wonder, and be curious among the confusion, that we call chaos that feels to be everywhere we look! It can feel so uncomfortable! Can you think of a time that you felt like this?

SILENT REFLECTION: Provide students with 30 seconds of think time.

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

RESOURCES FOR TEACHERS:

 What is the Hero's Journey?: Pat Soloman at TEDxRockCreekPark

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

How do we feel during the adventure stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Art materials, Journals, Chart Paper

TASK/LESSON:

We have learned so much about our brains and nervous systems! As we are called to adventure, even if it feels scary, confusing, or troubling, what brain and nervous system state might we be feeling? (Can you share your responses with a partner, draw, write them down.)

When we are experiencing change in our lives, can you share three people, places, or things that feel settling to your nervous system?

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS:

As we reflect and/ or begin our Hero's Journey, it is in this initial stage that there is felt yearning, growing challenges, and unfamiliar feelings, places, sensations, with unpredictable outcomes that call out to us. Doors feel to be opening and we may feel unprepared to venture into the unknown, but we might feel called to explore, wonder, and be curious amidst the chaos that feels to be generating in our lives. There is a shift in body and brain states where our emotional and sensory brains are activated, and we become increasingly nervous, anxious, unsure, closing down, or hyperactive. We might begin to feel stuck or frozen in time like a block of ice, as our nervous systems are downregulating and switching pathways, producing feelings of a loss of control over our current situations and experiences. We might sense that changes are happening too fast and too soon! It feels like too much stimulation. There is an overwhelming felt sense in our bellies, chests and other body and brain areas that begin feeling tight, tense, itchy, teary, shaky, or other edgy sensations. Questions and doubts begin to arise with an accompanied intensity.

- What is different?
- What should I do?
- What can I do?
- Is this dangerous?
- Is this safe?
- What is wrong with me?
- How can I get through this?
- Where is this fear coming from?
- Why am I shaking?
- Where is all my energy? I feel cold, numb, and unable to move.
- I am confused and worn out.
- What is going to happen?
- How can I be sure of anything?
- Who can I call? Who is there for me?
- Can I trust them?
- When will this be over?

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

Why is the adventure stage important to us?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Art materials, Journals, Chart Paper

TASK/LESSON:

Thinking about how we go through changes each day, week, months and years, can you write or draw about a character in a movie or a book you have read that is going through "a call to adventure."

- How did they handle this change?
- What was their call to their adventure?
- What were they feeling and sensing?

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS: (See Days 117- 119)

RESOURCES AND OUESTIONS FOR STUDENTS:

During this stage, there is a shift in body and brain states where our emotional and sensory brains are activated, and we become a little nervous, unsure, or hyper! We might begin to feel stuck or frozen like an ice cube as our nervous systems are switching pathways and we may be feeling a loss of control over our situations and experiences. We might feel that things are happening too fast and too soon! It feels like too much for our bodies and brains to handle. There is an overwhelming felt sense in our bellies, chests and other body and brain areas that begins feeling tight or tense, itchy, teary, shaky, or other sensations! Questions and doubts begin to arise with an accompanied intensity. Thumbs up if you've felt this way before!

CO-CREATE: Co-create with students a list of questions and doubts that begin to arise. Title the chart: Questions and Doubts I May Have In The Adventure Stage.

EXAMPLES:

- What is different?
- What should I do?
- What can I do?
- Is this dangerous?
- Is this safe?
- What is wrong with me?
- How can I get through this?
- Where is this fear coming from?
- Why am I shaking?
- Where is all my energy? I feel cold, numb and cannot move.
- I am confused and worn out.
- What is going to happen?
- How can I be sure of anything?
- Who can I call?
- Who is there for me?
- Can I trust them?
- When will this be over?

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

What is the assistance stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: Assistance happens when we have connections with others! Our nervous systems need other nervous systems! Our brains are social and cannot live without one another! How can we create a classroom of culture family? Families are not always our relatives but those who bring us joy and help us to feel safe!

STOP AND JOT: Provide students with 30 seconds of think time. Allow students 1 minute to draw an idea about how to create a school family.

CO-CREATE: Co-create an anchor chart with the class by allowing them to stick their post-it to the chart paper titled: Ideas to Make A School Family

DISPLAY: Display the anchor chart in the room for future reference.

RESOURCES FOR TEACHERS AND STUDENTS:

SENTENCE STEMS

- If I could create my own school family, I would include
- How would you design the perfect school home?
 What colors, items, animals, and spaces would you include?
- Who are the protective or nurturing people in your school family? (These can be imaginary, famous, spiritual people, animals, or relatives that you know.)
- What are two most important characteristics of your school family? Can you draw these or create a collage of these characteristics?



- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
 - provide additional processing time as needed
- provide individual models as needed

TOPIC:

HERO'S JOURNEY AND NEUROPLASTICITY

GUIDING QUESTION:

How do we feel during the assistance stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

Model for students, people and places that feel calming to you and things you need around you during these moments to help you feel safe. (We will model the following day as well.)

SAY: Today we are talking about the assistance stage of the hero's journey! This is when we realize that we'll need the help of someone or something who is possibly more experienced, or who has shared similar challenges with these struggles before us. In this part of the journey, we begin to seek the resources and supports that feel calming and protective as we meet the challenges before us.

TURN AND TALK: Provide 1-3 minutes for students to discuss the following questions with their partner:

Who or what are the people, places, animals, things or experiences you turn to when you need help or support? Our brains need each other and we cannot survive without each other so it is very brave and courageous to ask for help! That is what heroes do!!

RESOURCES FOR TEACHERS:

SHARE WITH STUDENTS

Remember class co-regulation in our brains and bodies occurs when we help and listen and are there for each other. Others help us to feel calm and safe! We need each other! Repair and growth are unable to occur unless there is someone to sit beside our pain, disappointment and hurt. Co-regulation changes the relationship of power between two people. In this time of assistance, we may need a friend or someone we trust to help us feel safe and connected to everything that feels to be changing quickly! What people, places, things or experiences do I need right now? This might be when we use our nervous system buddies!

STOP AND JOT: Provide students with 30 seconds of think time. Allow students 1 minute to draw a person who makes them feel safe and connected or write a name of a person.

- vocabulary visible to activate prior knowledge
- emotions/ sensations word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY

GUIDING QUESTION:

Who can we rely on during the assistance stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

Model for students, people and places that feel calming to you and things you need around you during these moments to help you feel safe.

TURN AND TALK: Provide students with 1-3 minutes to talk with their partner about the following questions:

- What places feel calming to me?
- What things or experiences do I need around me to feel safe?
- What people feel safe and calming to me?

RESPONSES: Allow students to draw, paint, or create in their own ways their responses to these questions! This is a great time to begin helping students create "Personal Maps of Assistance." These maps can be drawn or digitized. They can show roads and landmarks for the people, places, and things that we find comforting and soothing. The connection and regulation templates could be very helpful.

SUPPORT: Provide the students with menus of choices they can choose from as they recognize who and what could assist them through a challenging time.

RESOURCES FOR TEACHERS:

SENSORY AND REGULATORY PRACTICES FOR ASSISTANCE

 Sensory Regulatory Practices for Adults and Youth

CONNECTION TEMPLATES FOR ASSISTANCE: SURVEYS

 Connection resources & anchors survey for staff and for students

REGULATION TEMPLATES FOR ASSISTANCE: SURVEYS

• Staff & student survey of regulatory resources & anchors

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

What is the departure stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:_ART MATERIALS, JOURNALS, CHART PAPER

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: At this stage - departure - It's time to step outside of our comfort zone and try new ways of being with the situations or individuals that have fueled change and challenge. We cross the thresholds of sameness by paying attention to our neuroception which is our nervous system's response to how we feel on the inside. We have left the ordinary world. Our brains and bodies may be moving to fight /flight pathways where our heart rate is faster and we feel irritated, excited, scared, or all those feelings at once! Our nervous systems are preparing to protect us and this is why we sense and feel emotions and sensations in our bodies. We may be feeling anxious, angry, fearful, irritated, or we may be sensing a cold numb or frozen response where our words, thoughts, movements, and sensations feel stuck or locked up and lost. It is in this shut down, or immobilized response that we may begin to disappear and retreat from ourselves and others.

What does departure look like?

RESOURCES FOR STUDENTS:

- Video: You are not your thoughts
- A Helping Hand-<u>A Helping Hand</u> | <u>2D</u>
 Animated Short Film

RESOURCES FOR TEACHERS:

As we move through our Hero Journeys, it is so empowering for our students to observe our journeys as well! Below are questions we can share with one another!

- 1. What did you depart from and what were you or are you moving towards?
- 2. During this time, many people relay that they felt intense heaviness and confusion. What were concerns running through your head or felt in your body during this time?
- 3. Could you sense any hope about the felt risks you were experiencing during this challenging time?

- New friends
- Moving to a new place
- Loss of someone or something you love
- New schedule
- New school
- Different classroom
- Change in routine
- Someone you love is sick
- New job
- New feelings or sensations that are unknown
- Defeat
- Standing up for yourself in ways you haver have!
- What else?

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

How could or do others support us during the departure stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: Being heard helps! Acknowledgment is the best medicine we have!

WHAT IS ACKNOWLEDGEMENT? Can you think of a time you were acknowledged for something you did or said or a time when you acknowledged another? How have others let you know they heard you? What makes you feel better when you share your feelings with others? How do you feel in your body when you have been heard? (calm, smooth, open, floating like a cloud?)

CO-CREATE: Co-create a list of ways students feel heard and what makes them feel better when they share their stories with others. Examples: listener looking at them, a touch on their shoulder, a hug, someone saying I'm so sorry that's hard, etc.

RESOURCES FOR TEACHERS AND STUDENTS:

HOW DO YOU HELP A GRIEVING FRIEND?

This video is for all ages and adults! How do you help a grieving friend?

It is in this video we see the power of connection and support from our animals in the world!

- Have you ever experienced a time when an animal was by your side when you were going through a difficult time?
- Are there books or movies you have seen where you saw this reunion and support?

In this photo a sixth grade student shares how her nervous system felt when she was going through a break-up with her boyfriend? The class was supporting her by listening to her story and focusing their attention on her. There was no laughter, or inappropriate questions.

• Why do you think the class responded to her with such respect when she was sharing?



- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- · pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

When are times in our life that we are in the departure stage but others misunderstand our anger, sadness, or frustration?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP: ART MATERIALS, JOURNALS, CHART PAPER

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

- Can we think of movies, books, or songs that we resonate with that feel to acknowledge our challenges?
 - What is it about those songs, poems, books, videos that feel comforting! Students can break into small groups or with partners and write, draw, or discuss these media influences that have been helpful? We can then share out as a class creating a master list of our supports.
- 2. When were times that you felt misunderstood by others when you were experiencing a difficult time? As we watch this video, think about your reactions to the thoughts (in the bubbles) that were shared! Were you surprised? Why or Why not?

RESOURCES FOR STUDENTS AND TEACHERS:

Cleveland Clinic / <u>Empathy: The Human</u>
 <u>Connection to Patient Care</u>



This can be difficult for students to watch- 5th grade and up

In this video, we watch the nonverbal communication from a variety of people who are experiencing a hard departure! Sometimes, we misunderstand 'what' another person is going through and we create our own story about that person and why they look or act the way they do!

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- · provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

At this stage, we are going through the Trial Stage of the Hero Journey. How would you define a trial?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

We are going to rewatch the short video on the Hero Journey and focus on the trial stage!

With a partner describe what a trial is and maybe a time when you went through a trial. I will begin our discussions and share a trial of my own!

As we move through this day, notice the challenges, obstacles, or trials you or someone you know is facing. These can be small (losing an object, a harsh comment, a missed deadline, a fall, etc.) or larger. We can write about our trials in our journals, as we think about this stage of our Hero Journey.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR STUDENTS:

Let's focus on time marker 1:30
 What makes a hero? - Matthew Winkler

RESOURCES FOR TEACHERS:

We now begin to feel and sense the intensity of the growing conflict and challenges before us, as the old ways of being and doing begin to crumble away. Our survival can feel threatened at this time as our attention may be focused on everything that feels unfamiliar, unsafe, or dangerous. During this part of the journey, we often resist change, becoming angry and confused about the challenges unfolding as our negative emotions arise! We may begin to ask the difficult questions that might propel a few more deep dives into discomfort, fear, and a loss of control, while noticing how our own activators (triggers) can unintentionally escalate the impending challenge or perceived crisis.

Additional Questions for our own self-reflection and to share with our students. We can discuss, draw, or write about our reflections.

- What felt the hardest or most painful when things changed in this time in our life?
- What feels comforting to you when you feel sad, lost, hopeless or alone? What did you need during this time? What do you need now?
- What smells, tastes, sounds, visual images, or thoughts bubble up when you think of the changes you were experiencing during this part of your journey?
- Please draw or create a mountain that will be your guide. Over the next few days or weeks, we will climb your mountain together and work through the difficult journey as we near the top!

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

What is the trial stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

- We have been discussing trials, so let's share with one another our definition of a Hero. What is a hero in your mind? Let's watch the video together and discuss.
- 2. How are our nervous system and brain functioning in this trial stage? Can you draw, list, or describe those sensations and feelings?
- 3. What are ways we can be of assistance and support someone as they are going through the trial stage?

RESOURCES FOR STUDENTS:

ELEMENTARY

 Read Aloud: A Hero Like You | A story about everyday heros

RESOURCES FOR TEACHERS:

- WHAT IS A HERO? (All Ages)
- For the Heroes: A Pep Talk From Kid President

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

As we think about trials that lead us to our darkest hour, what are your thoughts and feelings about this time of change as we watch this video together?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

TASK/LESSON:

PLAY: Watch The Small Creature

SAY: What are some strategies the small creature used when missing bird?

STOP AND JOT: Provide students with 30 seconds of think time. Provide students with time to write or draw a strategy that small creature used.

CO-CREATE: Co-create an anchor chart titled: Strategies we can use when we miss someone we care about. Allow students to share their responses as you create the anchor chart.

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Grades 6+

RESOURCES FOR TEACHERS:

<u>British Heart Foundation - The Small Creature, an</u> animated story to help bereaved children

⚠ Note: This story could be activating for some of our students, so we might want to stop after a few minutes and check-in with our students.

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- · provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

What is our darkest hour of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 Minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: This is the hour where we approach our worst fear. We deeply feel that a change in relationship, environment, conversation, circumstance, or physical movement is necessary or is going to happen. We begin to understand that the status quo can no longer be sustained. We enter a type of crisis and our lives feel difficult. We understand that crises help us to grow, but they do not feel good in our bodies when we are experiencing them. On the other side of the crisis is opportunity, or when the sun shines after a storm! We know that it can't rain forever, just like the times we go through that feel so sad, hard or even impossible! We face our triggers, and the old ways that are not working in our lives very well! During times that feel so stressful, it becomes important for us to help each other! We begin to trust others, exploring a new kind of "friendship or safety." Our brains and bodies are emotionally over-reactive in this hour and our bodies and brains may have moved to fight or flight to protect us, or we may feel like crawling under our covers and just staying in bed until the hard time is over! That is OK! We all go through difficult times that feel like the biggest mountains we have ever seen or climbed.

(After our discussion about the darkest hour/ crisis, students can reflect on the four questions listed. They can draw, journal, act out or share with a partner.)

RESOURCES FOR TEACHERS AND STUDENTS:

Provide time throughout the week for the following discussions/activities:

- What feels the hardest or most painful when things change in our lives?
- What feels comforting to you when you feel sad, lost, hopeless or alone?
- Can you think of a time when you went through life changes? What smells, tastes, sounds, visual images, or thoughts bubble up when you think of those changes?
- What did it feel like in your body as you moved through those difficult moments?

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

How do we feel during this crisis or darkest hour of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

FOR YOUNGER STUDENTS:

SAY: This is when we overcome obstacles!

READ: A Bad Case of The Stripes

FOR OLDER STUDENTS:

SAY: This is when we overcome obstacles!

PLAY: Watch Overcoming Obstacles.

PARALLEL LINES: Divide students into two lines. Line A and B. Students in Line A answer the following question: What was Stephen's challenge? Students in Line B answer the following question: Have anyone ever judged you based on how you look? Every minute, students at the end of line A rotate to the front of the line. Continue for 4 minutes.

RESOURCES FOR TEACHERS AND STUDENTS:

- A Bad Case of The Stripes By David Shannon
- <u>Kids Book Read Aloud: A BAD CASE OF STRIPES</u>
 <u>by David Shannon</u>
- Overcoming Obstacles <u>Overcoming obstacles</u> <u>Steven Claunch</u>

RESOURCES FOR OLDER STUDENTS AND STAFF AS WE MOVE THROUGH OUR JOURNEYS

This is the hour where we approach our worst fear. We feel that a change in relationship, environment, conversation, or circumstance, is inevitable and necessary. We begin to understand that the status quo can no longer be sustained. We enter a type of crisis and intense difficulty. We understand that crises induce movement and change. On the other side of the crisis is opportunity, which allows us to learn and grow from our darkest hours. We don't see or feel an opportunity for growth at this point and time. We face our vulnerabilities, activators, wornout belief systems, and long-held practiced thoughts and private logic. During times of high stress, our need for connection intensifies, providing emotional first aid that can buffer growing distress. Our brains and bodies are emotionally over-reactive in this hour and our nervous systems may have elevated to the sympathetic nervous system pathway where we are preparing to fight or to flee. We may have shifted to the immobilized pathway of shut down, feeling stuck, shut down, numb, and hopeless. It is here where we unknowingly begin to die to our old self, in other words, we may be leaving old relationships, habits, behaviors, and settings (small or large shifts) as we journey into courageous new territory.

CONTINUED

FOR YOUNGER STUDENTS:

PARALLEL LINES: Divide students into two lines. Line A and B. Students in Line A answer the following question: What was Camilla's challenge? Students in Line B answer the following questions: Have you ever worried about what other people think of you? When you were worried how did you feel? DId you feel shaky, teary or jittery? Did you feel hot or chilly? Did you feel like running or hiding? Every minute, students at the end of line A rotate to the front of the line. Continue for 4 minutes.

FOR OLDER STUDENTS:

PARALLEL LINES: Divide students into two lines. Line A and B. Students in Line A answer the following question: What was Stephen's challenge? Students in Line B answer the following questions: Have anyone ever judged you based on how you look? DId you feel shaky, teary or jittery? Did you feel hot or chilly? Did you feel like running or hiding? Every minute, students at the end of line A rotate to the front of the line. Continue for 4 minutes.

SUMMATION OF DARKEST HOUR/ CRISIS STAGE

SAY: Think about one obstacle you have overcome.

THINK-PAIR-SHARE: Provide students with 30 seconds of think time. Provide students with 1 or 2 minutes to share with their partners.

- What vulnerabilities, activators, or old beliefs were you challenging head on during this time?
- What were you scared to lose during this time?
- What did it feel like in your body as you transitioned through this stage?
- Where would you have identified your nervous system state to be at this time?

DIFFERENTIATION STRATEGIES:

vocabulary visible to activate prior knowledge
emotions word wall/chart
pre-teach vocabulary as needed
allow students to respond in whichever way works
best for them: verbal expression, gestures, and/or
act it out, alternative communication systems
provide sentence stems as needed
provide additional processing time as needed
provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

What is the treasure stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: At this stage of the journey, we claim our treasures by learning new things about ourselves through difficult times! We might find that we have new feelings or thoughts! Maybe our opinions and views have changed? We begin to see options and opportunities. We test those possibilities out with hesitancy and hopefulness. Maybe we have learned how to care for ourselves in different ways? We begin learning and understanding that feeling depressed, angry, anxious, irritated, or numb is not a human flaw, but our brain and body's reaction and protective system addressing "past" or ongoing chronic adversity and trauma that can produce life changes that serve us so very well. We learn to acknowledge how we feel in our brain and body and know that our body is talking to us to help us and protect us!

RESOURCES FOR TEACHERS AND STUDENTS:

YOUNGER STUDENTS

 Mister Rogers Remixed | Garden of Your Mind | PBS Digital Studios

OLDER STUDENTS

Your mind is like a garden

SAY: Let's watch this together!

PLAY: Watch Your Mind is Like a Garden!

TURN AND TALK: Provide 1-3 minutes for students to discuss the following questions with their partner:

- What thoughts and feelings do we want to grow in our nervous system?
- What thoughts and feelings do we want to weed out?
- What are ways we can grow the thoughts, feelings and sensations we want to experience?
- What are some ways we can begin to weed out what we do not want or what is not serving our nervous system well! How can we help our ANS to know it is safe?

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

How do we feel during the treasures stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: Think about one treasure that you have gained after overcoming a challenge. How did you feel in your nervous system? Share out the state or blended state of our ANS.

THINK-PAIR-SHARE: Provide students with 30 seconds of think time. Provide students with 1 minute to share with their partners.

- Provide time throughout the next few days to discuss and savor this stage of treasures, no matter how big or small.
- Motivational Stories! Watch each one and then have students share our two AHA MOMENTS!

FILL OUR JARS WITH MARBLEOUS MOMENTS!

This activity is a journey and a process. Each student will be given two jars. One is empty and one is full! This is not a competition! We will be assessing our climb and challenges through our own timeline, challenges, celebrations and journey. Our classmates are there to help and support us!

Each day we will track different moments that went well, felt safe, and comfortable! We will also track moments that were difficult, made us angry, sad, anxious, or worried, and notice in those moments what we need! Each time we recognize how we are feeling and explore the different ways our nervous system responds or could respond; we place a marble in the empty jar.

Another example of a marbleous moment during our days is when we care for ourselves! Did we take a drink of water, breathe deeply, ask for help, use one of our ANS practices? Our lives are journeys and we are always climbing mountains and sometimes we can be curious about the new view or even enjoy the new view when we reach the other side!

CONTINUED

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS AND STUDENTS:

- BEATING THE ODDS | 6 Stories That Prove Anything Is Possible
- Mr. Jenson: Inspirational Video- Be a Mr. Jensen- MUST WATCH!!

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

Why is the treasure stage important?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

The treasure stage may be an experience with a reunion with someone, ourselves or an event or condition we have never felt.

As we watch the reunions with the animals, what thoughts or feelings resonate in your nervous system? We can write those down, draw, or share with another.

EXAMPLES OF SMALL AND LARGE TREASURES

- Finding something you lost
- practicing something important to you and doing well
- Reunion with someone or something you haven't seen for a while
- Celebrating a special occasion
- Waking up rested
- Feeling less stressed about something that has been bothering you
- Finding a new friend
- Finishing a project

RESOURCES FOR TEACHERS AND STUDENTS: CONNECTIONS WITH ANIMALS

Animals Reunited With Owners After Years

RESOURCES FOR EDUCATORS AND OLDER STUDENTS:

TREASURES

We claim our 'treasures' by learning new aspects about ourselves through difficult times. We might find that we have new sensations, feelings, or thoughts! Maybe our opinions and views have changed? We begin to see an alternative or opportunity we could not have recognized or identified before this journey. We assess those opportunities with hesitancy, along with some hope. Maybe we have learned how to care for ourselves in different ways? We begin learning and understanding that feeling depressed, angry, anxious, irritated, or numb is not a human flaw, but our nervous system's brilliant communication, protecting us as we address "past" or ongoing chronic adversity and trauma. We begin learning to acknowledge how we feel and sense our experiences knowing that our nervous systems can find their way home. Finally, the survival patterns of our behaviors in the past, may no longer serve us in the present. This acknowledgement is hope-filled.

- 1. What new things did you learn about yourself through this passage?
- 2. What thought processes or mindsets have shifted? Did any of your opinions and views change?

CONTINUED

- Traveling to a new place
- Not feeling as worried as you have in the past
- What else could be large or small treasures?

DIFFERENTIATION STRATEGIES:

vocabulary visible to activate prior knowledge emotions word wall/chart pre-teach vocabulary as needed allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems provide sentence stems as needed provide additional processing time as needed provide individual models as needed

- 3. In what ways did you give yourself grace during this period as you became curious and wondered about past habits of survival and ways of thinking and experiencing your internal and external worlds?
- 4. What did it feel like in your body as you moved through this stage? Where would you have identified your nervous system state to be at this time?
- 5. What thoughts, sensations, feelings do you want to grow and nurture?
- 6. What thoughts and feelings do you want to weed out?
- 7. How did you care for your nervous system much like we do a garden of flowers or vegetables?
- 8. Who waters you?
- 9. Who is your sunlight?
- 10. How do you water you?
- 11. How do you protect the garden of your nervous system from the winds and storms producing unsettling or dysregulating emotions, feelings, or behaviors?
- 12. Have you given time for your garden to seed and begin growing?

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

What is the resolution and return stage of The Hero's Journey with the brain in mind?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: Today we are going to talk about the last stage of the hero's journey! Resolution and return! As we leave the special world and return to our ordinary worlds, we now begin to see how we can transform obstacles into doorways, which is good for us who have had a lot of obstacles; because we can now see and open many doors! Those doorways can lead us home to ourselves. We begin to find our strengths, passions, interests and more importantly, what we want to weed out in our lives! We begin to steady our balance and lean into the gift of our nervous system, which is always guiding us through "how we feel and experience everything around us." We know that challenges, hardships, and moments of sadness and despair will always be a part of our lives, but we now begin to create a pathway, or our own toolbox we can use anytime when we meet the other obstacles and difficulties in our future! We slowly begin to recognize the powerful and beneficial superpower of our own sensations, feelings and thoughts. We have neuroplasticity!

We begin to find appreciation for the different experiences and the journeys that have initiated the changes in our

RESOURCES FOR TEACHERS AND STUDENTS:

- <u>Neuroplasticity</u>: The Sentis Brain
 Animation Series takes you on a tour of the brain through a series of short and sharp animations.
- Review the <u>Neuroscience of Learning</u> by Halo Neuroscience

RESOURCES FOR TEACHERS:

THIS SECTION IS FOR YOU!

How can you prepare and sit beside your own nervous system as you sit beside your students?

As we leave the special world of transformation, returning to our ordinary worlds, we begin to see how we can convert obstacles into doorways, which is good for those of us who have experienced many obstacles; because we can now see and access many doors! Those doorways can lead us home to ourselves. We begin to find our strengths, passions, renewed sense of purpose and autonomy and more importantly, the conditions and experiences that no longer serve us. We may commence to steady our balance, leaning into the presence of our nervous system's communication, which is always sharing or sometimes shouting its guidance through how we feel and sense our physiological states! We know that hardships, loss, moments of sadness and despair will always be a part of our lives, but we may now begin to approach our contentious experiences with a bit more awareness and compassion for ourselves.

CONTINUED

emotional and mental growth during all stages of development.

SAY: Let's think about neuroplasticity again! Thumbs up if you remember what that means.

RESPONSE: Allow students to respond in unison.

SAY: Neuroplasticity is how our brains change structurally and functionally with every experience we have! Remember when we are practicing anything the connections between neurons strengthen and we form circuits in the brain and body that become our habits!

MODEL: Model behaviors, thoughts, and feelings you practice.

TURN AND TALK: Provide 1-3 minutes for students to discuss the following questions with their partner:

- What behaviors do we practice, even though we might not want to or be aware of those?
- What thoughts do we practice? What feelings do we practice?
- What feels calming and soothing to your ANS that you want to practice more?
- As we watch these short videos, how can you apply neuroplasticity to your personal hero journey?

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

We might gradually begin to recognize and celebrate the powerful and beneficial flexibility and resiliency of our nervous system.

- 1. What did you discover that interests you now? What new strengths did you acquire? What feels troubling or out of control?
- 2. What have you confidently left behind? What have you hesitantly left behind? What have you confidently kept?
- 3. What did it feel like in your body as you transitioned to this stage?
- 4. Where would you have identified your brain and body state to be at this time?
- 5. What behaviors do we continue to reluctantly practice, still pondering and questioning?
- 6. What thoughts do we practice?
- 7. What feelings do we practice?
- 8. As we move through this passage of the Hero's Journey, is there a thought, feeling or behavioral practice you would like to commence with intentionality?

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

How are we experiencing ourselves during the resolution and return stage?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Art materials
- Journals
- Chart Paper

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

Let's create our own graffiti wall / wordle for the culmination of this journey. Let's fill this with images, words, songs, lyrics, poems or anything that reflects and shares our journeys!

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR STUDENTS:



Credit- v96Joel

RESOURCES FOR TEACHERS:

Questions for Our Individual or Collective Art

- 1. What has been the best part of this journey?
- 2. What has been the worst part about this journey?
- 3. What did I learn about myself?
- 4. What people, things or places were there to support me?
- 5. What am I going to focus upon moving forward?
- 6. What have I learned about my nervous system?
- 7. What are three words (feelings, sensations, or thoughts) that best describe where I am right now?

TOPIC:

NEUROPLASTICITY AND THE HERO'S JOURNEY

GUIDING QUESTION:

How can we apply neuroplasticity into our daily lives with each new journey that requires a change in thought, feelings, sensations, relationships, places or experiences?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

• Art materials, Journals, Chart Paper

Note: Regarding Hero's Journey Days 115-137: This may be appropriate for Upper Elementary + (Can be modified for younger students)

TASK/LESSON:

SAY: Can you think of a habit that you do every day? Is this something you want to keep and practice or a habit you would prefer not to have?

THINK-PAIR-SHARE: Provide students with 30 seconds of think time. Provide students with 1 minute to share with their partners.

What is a behavior, thought, feeling you have stopped practicing that is lessening? What does that feel like when you think about this experience?

PLAY: The Backwards Brain Bicycle

SAY: Have you ever practiced a new skill, thought, feeling or behavior and that behavior, skill, feeling or thought has strengthened?

THINK-PAIR-SHARE: Provide students with 30 seconds of think time. Provide students with a few minutes to share with their partners.

During the upcoming weeks and months, the resources (videos) explaining and discussing neuroplasticity will be helpful reminders as we move through the constant challenges and changes in our lives.

RESOURCES FOR TEACHERS AND STUDENTS:

ALL AGES

The Backwards Brain Bicycle - Smarter Every Day
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ELEMENTARY AND MIDDLE SCHOOL AGES

- <u>LearnStorm Growth Mindset: The Truth About</u> Your Brain
- Growth Mindset Animated Lesson
- What Growth Mindset Means for Kids | Rebecca Chang | TEDxYouth@Jingshan

ALL AGES

Neural Connections [How Thoughts Work]

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- · pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

THE ADOLESCENT BRAIN

GUIDING QUESTION:

How is the adolescent brain unique?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: adolescent
- Choose appropriate video for students (most relatable/engaging)

TASK/LESSON:

Today we will learn about the ADOLESCENT brain. Let's talk about what it means to be an adolescent, because we will either go through it in the future, are in it now, or have gone through it.

It is the greatest stage of brain development! That's HUGE! It occurs in the last trimester throughout two years of age. Adolescence is an important time in brain development because it is the second greatest time of brain development.

Let's watch a video and discuss what is happening in adolescent brains! Show video and debrief with a discussion.

DISCUSS:

What is happening in the adolescent brain during this time?

- Natural pruning of neurons
- Increasing mastery skills
- Less serotonin and more testosterone
- Heightened dopamine

RESOURCES FOR TEACHERS:

ALL SECONDARY:

<u>CASEL CARES: Best Support the Power &</u>
 <u>Purpose of the Teenage Brain with Dr. Dan</u>
 Siegel

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 6+

- Brain Development Teenagers
- Teen Brain: Teen Brain HD
- <u>Dan Siegel "The Adolescent Brain"</u> for adolescents and adults to watch and discuss together
- In the section of the Social Brain, there are many discussion questions and video clips from "Turning Red" that would apply here.
- Activities, discussion questions about 'huge emotions' emotions and the adolescent brain.
 See Below:

PRACTICES AND QUESTIONS FOR STUDENTS

WHO I AM- With art materials (papers, markers, yarn, scraps of material, pipe cleaners, etc.) We begin the day or class period creating the huge emotions we carry as a part of our identity! What are our huge emotions? Huge emotions can also be quiet or lonely emotions! They don't have to be exploding with anger, but could be sadness, anxiety, depression, or loneliness.

- Hyperrationality
- Pruning of neurons
- Increasing mastery skills
- 50% gray matter
- What wires together, fires together
- Early childhood trauma
- Less serotonin and more testosterone
- Heightened dopamine
- Hyperrationality
- All Behavior is Communication
- Pruning of neurons
- Increasing mastery skills
- 50% gray matter
- What wires together, fires together
- Early childhood trauma
- Less serotonin and more testosterone
- Heightened dopamine
- Hyperrationality
- All Behavior is Communication
- Pruning of neurons
- Increasing mastery skills
- 50% gray matter
- What wires together, fires together
- Early childhood trauma
- Less serotonin and more testosterone
- Heightened dopamine
- Hyperrationality
- All Behavior is Communication

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language
- Sentence Stem and extra processing time for discussions

WHAT IS YOUR PANDA? The 'red panda' symbolizes huge emotions for Meilin and when she works to calm those emotions, she feels some relief and relaxed. What animal or symbol represents your 'Panda' Can you journal, describe, or draw your 'panda' using colors, lines, or symbols that best describe your animal or object? (video clip of HUGE Emotions)

CIRCLE UP OR PAIR UP: We can choose a question a day or a week and begin sharing in small groups or with a partner, what causes our huge emotions, how we can begin to calm those, and how is our brain responding when we have those huge emotions.

- 1. What caused a huge emotion in someone you know?
- 2. There are all types of huge emotions in these video clips. What do you notice as you watch these video clips?
- 3. What part or parts of the brain are firing when we have huge emotions? Can you think of times when you felt so stressed that you were unable to think clearly? Watch Emotions and the Brain
- 4. Can our brains and nervous systems feel more than one emotion at the same time? Can you provide examples when you felt many emotions at once?
- 5. Can huge emotions help us? How?
- 6. What happens to our thinking when huge emotions take over? Can you give an example?

TOPIC:

THE ADOLESCENT BRAIN

GUIDING QUESTION:

How is the adolescent brain unique?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Vocabulary: Adolescent
- Get video ready (only play portion since it is extra-long)

TASK/LESSON:

What wires together fires together. Today we'll continue learning about how our brains transform in our teenage years, or our adolescence.

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Focus on the visuals in the video instead of language
- Sentence Stem and extra processing time for discussions

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 8+

 <u>The Neuroanatomical Transformation of</u> the <u>Teenage Brain</u>: (Time Marker 16:30)

RESOURCES FOR TEACHERS:

- The Teenage Brain Explained
- The Teenage Brain (Time Marker 11:00)
- Turning Red: <u>Ruptures and Repairs in</u> <u>Adolescence</u> Document
- Turning Red: <u>Huge Emotions and the</u> <u>Adolescent Brain</u> Document

TOPIC:

THE ADOLESCENT BRAIN

GUIDING QUESTION:

What is happening in the adolescent brain?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Get video ready to play

TASK/LESSON:

Watch the clip from *Inside Out* and take notes as a whole group or individually. Use notes from viewing to support tomorrow's class discussion. Reflect as a group and use the Edutopia article from resources to support whole group discussion.

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Sentence Stems and extra processing time for discussions

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 5+

 Video clips of Bing Bong and the Adolescent Brain: <u>Inside Out: Bing Bong Dies</u> (Time Marker 5:00)

RESOURCES FOR TEACHERS:

• Edutopia Article: <u>The Adolescent Brain:</u> <u>Leaving Childhood Behind or *Printable Article*</u>

TOPIC:

ADOLESCENT BRAIN

GUIDING QUESTION:

What is happening in the adolescent brain?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Brain anchor chart (from previous lessons)
- Get video ready to play

TASK/LESSON:

Yesterday we watched a clip from *Inside Out*. Today we are going to share our reflections/thoughts and discuss the symbols from this scene in the movie.

- What or who was your Bing Bong? Could it be an object (like a blanket or teddy bear) or something in our imaginations?
- What does Bing Bong symbolize/represent?
- Why is it important for Riley to let go of Bing Bong?
- Why did Bing Bong jump off the wagon?
- What makes it so sad for the audience (especially parents and adults) as we watch this part?
- Do we really ever lose Bing Bong? Explain.
- Do you have a core memory of an experience from your imagination? What is it like?

DIFFERENTIATION STRATEGIES:

- Refer to any previous visuals to activate background knowledge
- Sentence Stems and extra processing time for discussions
- Consider strategic small groups or adding in turn and talks before sharing out loud in a whole group

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 5+

 Video clips of Bing Bong and the Adolescent Brain: Inside Out: Bing Bong Dies





TOPIC:

MEMORY

GUIDING QUESTION:

What is a core memory?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- 10 random items on a plate or tray to model
- Show "Brain Game" video

TASK/LESSON:

- What is the difference between a core memory and a regular memory? A core memory is a memory that holds significant emotion or meaning to the individual.
- Memory Games
 - 1. Bring out ten items on a tray and show students for 10 seconds. See what students remember?
 - 2. Put a short sequence and then build a longer sequence of numbers and letters together!
- Discuss: What strengthens memory?

DIFFERENTIATION STRATEGIES:

- extra processing time
- sentence stems for discussion: "Our memory gets stronger by..."

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3+

Your Memory Under Stress: <u>Brain Games (2 min)</u>

TOPIC:

MEMORY

GUIDING QUESTION:

What is a core memory?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- "Our Core Memories" anchor chart (co-create during the lesson)
- Video ready to show ("Hippocampus")
- Vocabulary: Hippocampus (clap it out for movement and to draw connections)

TASK/LESSON:

A core memory is a memory that holds significant emotion or meaning to the individual.

Teacher models one core memory. Have students share and add to the list the details of each memory!

Discuss: Which memory has more details? Can you write down the different details?

DIFFERENTIATION STRATEGIES:

- extra processing time
- sentence stems for discussion:
 "Memory ____ has more details because..."

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 6+

Hippocampus and Memory: <u>Hippocampus: Human</u> Brain Series

TOPIC:

MEMORY

GUIDING QUESTION:

How does positivity impact the brain?

TEACHING TIME:

5-10 minutes

MATERIALS/PREP:

Video ready to show ("The Power of Positivity")

TASK/LESSON:

Your brain state matters and when you believe you can, you are actually more likely to be successful. Show students the video and reflect.

Discuss: How did positivity change people in the video? Go ahead and spread positive vibes!

DIFFERENTIATION STRATEGIES:

Sentence Stems:

"Positivity can be helpful because..."

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 3+

The Power of Positivity: Brain Games (3:11)

TOPIC:

MEMORY

GUIDING QUESTION:

Can happiness spread?

TEACHING TIME:

5 minutes

MATERIALS/PREP:

- Get video ready to show: "An Experiment of Happiness": be sure to skip parts noted due to language
- Vocabulary: Gratitude

TASK/LESSON:

Gratitude is when we share something that makes us happy or that we are thankful for. Spreading gratitude will increase your happiness. Try it out.

DIFFERENTIATION STRATEGIES:

use visuals or any previous background knowledge to activate prior schema

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 6+

• The Science of Happiness: An Experiment of Gratitude



⚠ MUTE or SKIP from 5:15-5:30 for language edit

TOPIC:

SHORT TERM MEMORY

GUIDING QUESTION:

What is short term memory?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Video ready to show ("How Does Your Memory Work?")
- Brain Anchor chart (from previous lessons)
- Vocabulary: hippocampus, memory, core memory

TASK/LESSON:

Short term memory is the phase of memory responsible for temporary storage of information.

If you get confused about "short term" memory vs. "core memory" just think about the key word "short" in the term!

DIFFERENTIATION STRATEGIES:

use visuals or any previous background knowledge to activate prior schema

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+

• Video: <u>How Does Your Memory Work?</u>

TOPIC:

LONG TERM MEMORY

GUIDING QUESTION:

What is long term memory?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Video ready to show ("Show Term, Long Term, Working Memory"))
- Brain Anchor chart (from previous lessons)
- Vocabulary: hippocampus, memory, core memory

TASK/LESSON:

Long term memory is the phase of memory responsible for the storage of information for an extended period of time. Let's watch a video to learn more about it!

DIFFERENTIATION STRATEGIES:

use visuals or any previous background knowledge to activate prior schema

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+

• Video: <u>How Does Your Memory Work?</u>

Video: <u>Short Term, Long Term, and Working</u>
 <u>Memory:</u> (Time Marker 2:08)

TOPIC:

MEMORY

GUIDING QUESTION:

How are short term and long term memory different?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Video ready to show ("Short Term vs. Long Term")
- Brain Anchor chart (from previous lessons)
- Vocabulary: hippocampus, memory, core memory

TASK/LESSON:

Your brain is taking in millions of signals all day. It is not possible to remember everything. The brain must do something with memory to store it in the long term and make it easy to retrieve from memory.

DIFFERENTIATION STRATEGIES:

use visuals or any previous background knowledge to activate prior schema

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 4+

Video: <u>Short Term vs. Long Term Memory</u>

TOPIC:

MEMORY

GUIDING QUESTION:

How does learning become memory? (encoding, consolidation, retrieval)

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Video ready to show ("How We Make Memories")
- Brain Anchor chart (from previous lessons)
- Vocabulary: hippocampus, memory

TASK/LESSON:

Memory is learning that has persisted over time. Let's watch a video to add to our knowledge about memories! We'll just watch the first half today and finish it tomorrow.

DIFFERENTIATION STRATEGIES:

use visuals or any previous background knowledge to activate prior schema

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 7+

• <u>How We Make Memories:</u> (watch first half and save second half for next lesson)

TOPIC:

MEMORY

GUIDING QUESTION:

How are you priming your brain for memory storage?

TEACHING TIME:

15 - 25 minutes

MATERIALS/PREP:

- Video ready to show ("How We Make Memories")
- Brain Anchor chart (from previous lessons)
- Vocabulary: hippocampus, memory, habits

TASK/LESSON:

Lead a whole group discussion about keeping bodies and brains healthy. Explain that it's so important for many reasons! One is to keep our brains ready and to keep remembering important things! Let's review some things we learned from our video yesterday. Watch the video and then lead a discussion.

DISCUSS: What daily habits do you have that are helping you come to school ready to learn and socialize? (sleep, diet, exercise, mindfulness, planning ahead, schedule). What are strategies for taking care of our body and brain to help support memory.

DIFFERENTIATION STRATEGIES:

- extra processing time before responding to discussion
- sentence stems for discussion

RESOURCES FOR TEACHERS AND STUDENTS:

SECONDARY: GRADES 7+

 How We Make Memories: (recap what was learned about in yesterday's half on the video)



TOPIC:

THOUGHTS: NEGATIVE BIAS

GUIDING OUESTIONS:

Why is the brain negatively biased?

If you track your thoughts for a day or a few days, what do you notice? Are there any similar patterns?

What is the same or what is different?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Draw a straight line on a board or on chart paper
- Scenarios for Above/Below the Line (thought of beforehand)
- Brain Anchor Chart (from previous lessons)
- Vocabulary: negative, emotions, thoughts
- Video ready to play

TASK/LESSON:

Explain that it is normal to feel negative emotions because our brains are wired to survive before we feel and think! And it is OK to go into survival mode for short bits of time once in a while, but when our bodies are constantly going into that negative brain state, it becomes a hard wired habit! We can break these habits.

Show video and debrief with a discussion.

PLAY ABOVE OR BELOW THE LINE: Draw your own line and let's monitor our brain state changes all day to see where they fall and how they change!!

DIFFERENTIATION STRATEGIES:

Sentence Stem:

"This situation puts me in the brain state of ..."

RESOURCES FOR TEACHERS:

 Negative Brain Bias: <u>Locating Yourself: A Key to</u> <u>Conscious Leadership</u>

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY & SECONDARY: GRADES 4+

 Video: <u>You Are Not Your Thoughts:</u> Time Marker 4:00)



https://www.youtube.com/watch?v=0QXmmP4psbA&t=4s

Note: the boy in the video has an <u>ostomy</u>, so preface this before showing the video because students will have questions

TOPIC:

THOUGHTS: GRATITUDE

GUIDING QUESTION:

How does gratitude affect the brain?

TEACHING TIME:

15-20 minutes

MATERIALS/PREP:

- Composition books (1 per student) or paper journals stapled together
- Index cards (3-5 per student)
- Vocabulary: GRATITUDE
- Video ready to play (choose most appropriate for your class)

TASK/LESSON:

Remind students of the meaning of gratitude: when you are thankful for things in your life. Create gratitude journals as we write three things we are grateful for in our morning meeting. We will then each take five notecards and write a positive affirmation on these and share them throughout the day with other staff, students, and teachers!

DIFFERENTIATION STRATEGIES:

Sentence Stems: "Something I am grateful for is..."

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY & SECONDARY: GRADES 3+

- Gratitude: <u>How to Overcome Negative</u> Thoughts: 90 Second Rule
- How Gratitude Makes Us Happy: <u>The</u> <u>Gratitude Experiment</u>
- Kid President: 25 Reasons to Be Thankful

ALL ELEMENTARY: AND SECONDARY:

Thank you to these fabulous educators who have modeled these energizing and calming focused attention practices.

- FOAP—Dedicate this One
- Reflections

TOPIC:

OUR TRAIN OF THOUGHT

GUIDING QUESTION:

When do your thoughts become distracted and how do you get back on track?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Think about student small groups/partnerships
- Video ready to show (<u>from day 146</u>)

TASK/LESSON:

- Re-show video: "You Are Not Your Thoughts" and remind that we are not our thoughts and we can change our thinking.
- Lead discussion and have students discuss in small groups.

ASK & DISCUSS:

- When does your train of thought run smoothly with few stops?
- When does your train of thought struggle? Why?
- What can I do in the classroom to help your train run with great speed and accuracy?
- What can you do to help your train of thought stay on the tracks and reach its destination? Teaching students about their neuroanatomy is empowering, as well as the foundation of learning and connection.

DIFFERENTIATION STRATEGIES:

- Sentence Stems for discussion:
 - "My thoughts run smoothly when..."
 - o "I struggle when..."
- Extra processing and wait time before responding to questions out loud

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2 - 5

- It is important to have a tangible train of thought in the classroom. This could be a larger model of chairs and cardboard boxes, or students could build individual models of trains. Images of trains posted in an Attention and Focus corner could help to prime the brain for focus and remembering.
- Video: <u>You Are Not Your Thoughts:</u> (Time Marker 4:00)

Note: the boy in the video has an <u>ostomy</u>, so preface this before showing the video because students will have questions

SECONDARY: GRADES 6 - 12

- Creating an analogy or visualization of the train of thought could support goal setting and planning.
 Where is your train heading right now? Is this where you want to go? What are two changes in planning this journey that you could make today?
- Video: You Are Not Your Thoughts: (Time Marker 4:00)

• Note: the boy in the video has an <u>ostomy</u>, so preface this before showing the video because students will have questions

ALL ELEMENTARY: AND SECONDARY:

- Focused Attention Practice (FOAP): Box and the Boat
- Focused Attention Practice (FOAP): Blossoming Flower
- Focused Attention Practice (FOAP): Old Favorite
- Focused Attention Practice (FOAP): So What?

RESOURCES FOR TEACHERS:

• Edutopia Article: <u>Islands of Personality and Trains of Thought</u>



TOPIC:

EMOTIONAL REGULATION

GUIDING QUESTION:

How do we return to our prefrontal cortex (calm) after being triggered (amygdala)?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain Anchor chart (from previous lessons)
- Vocabulary: prefrontal cortex, regulate
- Video ready for appropriate age group

TASK/LESSON:

Explain that today we'll be talking about what happens to our brain when we get angry. When we're angry, anxious, upset in any way, our prefrontal cortex shuts down and it can be hard for us to think clearly and/or rationally. Because of this it is difficult to pause and think before we react.

Can you think of a recent time when you felt this way and unintentionally spoke or acted before thinking about the consequences? We learn to pause and regulate at a very young age. If we do not learn to regulate at a young age, it is much more difficult to learn the more we age.

Spend time over the next two days to watch videos with students! Discuss our coping strategies again and if we are intentionally using these strategies to emotionally regulate.

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2 - 4

- Calm Down and Release the Amygdala
- Controlling Emotions: A Lesson from Angry Birds

ELEMENTARY & SECONDARY: GRADES 4+

- <u>Self-Regulation Skills: Why They Are</u>
 <u>Fundamental</u>
- <u>Calm Down and Release the Amygdala</u> (Time Marker 6 min)

RESOURCES FOR TEACHERS:

• Edutopia Article by Dr. Lori: <u>Strengthening</u> <u>Executive Function</u>

TEACH/MODEL/USE THE FOLLOWING:

PAUSE -Young people with ADD often show an inability to create a pause, or a moment of self-restraint between stimulus and reaction while weighing the consequences of their impending reaction. To assist students in creating this pause, give their brains the opportunity to make associations with color, visuals, and concrete objects. Tangible items can be symbolic reminders for students of all ages. Here are examples of signaling an intentional pause:

Flicking a red rubber band bracelet on our wrists or placing a red ball cap on our heads are two practices that teachers could model and repeatedly share when a pause is needed before making a hurried emotional or academic decision.

Accompanied with a tangible item, teachers can help students identify words that are analogies to waiting and hesitating. Stop, pause, halt, think, rest, breathe, float, and tread could be posted in specific areas of the room with pictures and images to add meaning.

Students could bring in an object from home that reminds them to stop, pause, and wait. These personal objects could be placed in a "red corner," a highlighted area in the classroom where they are seen as reminders. Seeing, saying, and experiencing meaningful and personal reminders can effectively create associations and metaphors that the brain desires and needs for personalizing new responses.

*The strategies in this section originally appeared on Edutopia in the article: <u>Strengthening Executive</u> Function Development for Students With ADD

DIFFERENTIATION STRATEGIES:

- Extra processing and wait time before responding to questions out loud
- Visuals to go with vocabulary
- Preview new vocabulary as needed

TOPIC:

EMOTIONAL REGULATION

GUIDING QUESTION:

How do we return to our prefrontal cortex (calm) after being triggered (amygdala)?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain Anchor chart (from previous lessons)
- Vocabulary: prefrontal cortex, regulate, self-regulate
- Video ready for appropriate age group

TASK/LESSON:

Continue the discussion from yesterday: When we're angry, anxious, upset in any way, our prefrontal cortex shuts down and it can be hard for us to think clearly and/or rationally. Because of this it is difficult to pause and think before we react. Can you think of a recent time when you felt this way and unintentionally spoke or acted before thinking about the consequences? We learn to pause and regulate at a very young age. If we do not learn to regulate at a young age, it is much more difficult to learn the more we age. Spend time over the next two days to watch videos with students! Discuss our coping strategies again and if we are intentionally using these strategies to emotionally regulate.

DIFFERENTIATION STRATEGIES:

- Extra processing and wait time before responding to questions out loud
- Visuals to go with vocabulary
- Preview new vocabulary as needed

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2 - 4

- Calm Down and Release the Amygdala
- <u>Controlling Emotions: A Lesson from Angry</u> Birds

ELEMENTARY & SECONDARY: GRADES 4+

- <u>Self-Regulation Skills: Why They Are</u>
 <u>Fundamental</u>
- <u>Calm Down and Release the Amygdala</u> (Time Marker 6 min)

RESOURCES FOR TEACHERS:

• Edutopia Article by Dr. Lori: <u>Strengthening</u> <u>Executive Function</u>

TOPIC:

EMOTIONAL REGULATION

GUIDING QUESTION:

How do we return to our prefrontal cortex (calm) after being triggered (amygdala)?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain Anchor chart (from previous lessons)
- Vocabulary: prefrontal cortex, regulate, selfregulate
- Video ready (if not shown yet)

TASK/LESSON:

Continue discussion of the previous days and continue adding on and building an understanding. The language of the prefrontal cortex is spoken words and the language of the amygdala is feelings. When we are angry, anxious, afraid, sad, hungry or upset in any way the prefrontal cortex goes offline and we need time to regulate in a safe space to calm the amygdala. We must be proactive in building relationships so we may support coregulation in times when students become disregulated.

DIFFERENTIATION STRATEGIES:

- Extra processing and wait time before responding to questions out loud
- Visuals to go with vocabulary
- Preview new vocabulary as needed

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2+

Calm Down and Release the Amygdala

TOPIC:

COPING STRATEGY: EMOTIONAL FREEDOM TECHNIQUE- "TAPPING"

GUIDING QUESTION:

What is emotional freedom technique and what happens in the brain when we use this calming strategy?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Vocabulary: Emotional Freedom Tapping (written on board)
- Teacher prepared to model EFT

TASK/LESSON:

"Emotional Freedom Techniques, or EFT (often known as Tapping or EFT Tapping), is a universal healing tool that can provide impressive results for physical, emotional, and performance issues. EFT operates on the premise that no matter what part of your life needs improvement, there are unresolved emotional issues in the way. Even for physical issues, chronic pain, or diagnosed conditions, it is common knowledge that any kind of emotional stress can impede the natural healing potential of the human body."

Familiarize yourself and students with nine tapping points on the body.

DIFFERENTIATION STRATEGIES:

- Clap out and pre-teach vocabulary
- Do not force students to engage if not comfortable
- Model parts of the body before tapping

RESOURCES FOR TEACHERS AND STUDENTS:

ALL ELEMENTARY: AND SECONDARY:

<u>Focused Attention Practice (FOAP): Tapping</u>
 <u>EFT</u>

SECONDARY: GRADES 6+

 <u>EFT Tapping Manual - Tapping Points and</u> <u>Instructions – Thriving Now</u>

RESOURCES FOR TEACHERS:

- What is EFT? Theory, Science and Uses |
 PART I For Everyone: The EFT Tapping Basics |
 Official EFT Tutorial
- EFT Tapping for Stress Relief
- Stress Relief for Children
- <u>Tapping Solution Foundation Trailer</u>

TOPIC:

COPING STRATEGY: EMOTIONAL FREEDOM TECHNIQUE- "TAPPING"

GUIDING QUESTION:

How does EFT impact our emotions and learning?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Teacher prepared to model EFT
- Vocabulary: Emotional Freedom Tapping (written on board)

TASK/LESSON:

Use these videos and the resources from the previous day to review and practice EFT practices.

DIFFERENTIATION STRATEGIES:

- Clap out and pre-teach vocabulary
- Do not force students to engage if not comfortable
- Model parts of the body before tapping

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2-6

• EFT For Kid

SECONDARY: GRADES 7+

• <u>Tapping for Teens</u> **only play a portion



TOPIC:

SOCIAL BRAINS

GUIDING QUESTIONS:

Why are relationships important?

Why do people follow others?
What does conformity mean?
What do you think "herding behavior" means when we think about the social brain?

TEACHING TIME:

5 - 10 minutes

MATERIALS/PREP:

- Vocabulary: emotions
- Brain Chart (from previous lessons)
- Chart paper or whiteboard for shared list
- Paper and pencil for independent lists

TASK/LESSON:

We cannot live without one another! We are wired for relationships and do not function well without one another.

Make a list of everything you can do independently...without anyone.

Make a list of everything you do each day that involves other people.

ASK & DISCUSS: Which list brings you the most positive emotions?

DIFFERENTIATION STRATEGIES:

- Word bank with list of emotions
- · Processing time before discussing out loud
- Preview vocabulary as needed

RESOURCES FOR STUDENTS & TEACHERS:

- Article: <u>Helping Students Reacclimate to Being</u>
 <u>With Others All Day</u> (Activities to address social cultures in the classroom)
- Article: <u>New Ways of Brain Aligned Bell-Work for</u> <u>Discussion, creativity, and collaboration</u>

SECONDARY STUDENTS AND EDUCATORS

What is the Social Brain?
 What are three take-aways from these few minutes? How is learning affected when we are being social?

ALL STUDENTS AND EDUCATORS

- <u>The Social Brain</u> | Sentis
- Herding Behavior: How following the crowd leads us astray Herding Behavior- This is a great video to talk about peer pressure, following the crowd, and how our brains automatically go with the group when we are feeling uncertainty!

TOPIC:

SOCIAL BRAINS

GUIDING QUESTIONS:

Why are relationships important?

How do relationships help us each day?

Can you think of a time when it was hard to do it alone, and because there was someone with you, you did it!

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Vocabulary: emotions, social
- Brain Chart (from previous lessons)
- Show shared list from yesterday's lesson
- The Social Brain

TASK/LESSON:

We discussed the important role relationships play in our daily lives. Watch the video *Social Brains* and discuss new takeaways and connect to your lists from yesterday.

Social pain and physical pain occur in the same regions in the brain.

DIFFERENTIATION STRATEGIES:

- Word bank with list of emotions
- Processing time before discussing out loud
- Preview vocabulary as needed

RESOURCES FOR STUDENTS & TEACHERS:

ELEMENTARY GRADES K - 5TH:

• Hair Love | Oscar®-Winning Short Film

TOPIC:

SOCIAL BRAINS

GUIDING QUESTION:

How is technology changing your brain?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

- Vocabulary: emotions, social
- Brain Anchor Chart (from previous lessons)
- Video ready to be played

TASK/LESSON:

Technology plays a large role in many of our lives. Are you aware of how technology is changing your brain (good and bad) each day? Show video and facilitate discussion.

DIFFERENTIATION STRATEGIES:

- Processing time before discussing out loud
- Preview vocabulary as needed
- Chunk video into 2 parts for stamina purposes

RESOURCES FOR STUDENTS & TEACHERS:

ELEMENTARY: GRADES 4+

BRAIN POWER: From Neurons to Networks

TOPIC:

SOCIAL BRAINS

GUIDING QUESTIONS:

In what ways are groups stronger than individuals?

What are stereotypes?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Brain Anchor Chart (from previous lessons)
- phone book or thick book/magazine to tear (single pages and entire book)

TASK/LESSON:

Bring in a thick book like a telephone book! Show how easy it is to tear one page and then grab 50 or 100 pages together and try to tear these! If you have enough pages, they simply will not tear! We are stronger in group and collaboration!

Why do we sometimes not get along in groups? Could it be that our survival brain is kicking into action? How could we work to collaborate in better ways working like a thick book that's pages cannot be torn when working together!

DIFFERENTIATION STRATEGIES:

- Processing time before discussion
- Sentence stems: "We can collaborate by..."

RESOURCES FOR TEACHERS:

 When the Social Brain Misfires (We can divide this video up into parts and begin sharing with our students.)

TOPIC:

SOCIAL BRAINS

GUIDING QUESTIONS:

What are your superpowers?

When someone's feelings are hurt, do we take that as seriously as a broken leg or arm?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- First half of video ready to play
- Add "Closed Captions"

TASK/LESSON:

"Neuroscientist Matthew Lieberman explains that through his studies he's learned that our kryptonite is ignoring the importance of our social superpowers and by building on our social intuition, we can make ourselves smarter, happier, and more productive. In this TEDx Talk, Lieberman explores groundbreaking research in social neuroscience that reveals that our need to connect with other people is even more fundamental than our need for food or shelter and that the social pain and pleasure we experience has just as much impact as physical pain and pleasure."

DIFFERENTIATION STRATEGIES:

pause video strategically to process aloud and retell information

RESOURCES FOR TEACHERS:

APPROPRIATE FOR SECONDARY GRADES ONLY:

 First half of video ready to play - <u>The social</u> brain and its superpowers: Matthew Lieberman, Ph.D. at TEDxStLouis

TOPIC:

SOCIAL BRAINS

GUIDING QUESTION:

What are your superpowers?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- <u>Remainder of video</u> ready to play from previous lesson
- Add "Closed Captions"

TASK/LESSON:

Continue watching the video and then share reflection in the whole group discussion.

DIFFERENTIATION STRATEGIES:

pause video strategically to process aloud and retell information

RESOURCES FOR STUDENTS & TEACHERS:

The social brain and its superpowers:
 Matthew Lieberman, Ph.D. at TEDxStLouis

TOPIC:

SOCIAL BRAINS

GUIDING OUESTIONS:

What is co-regulation?

When we feel stressed, how do our bodies respond?

Embarrassment is a common feeling in middle school and we need to learn how we handle this big emotion.

How can co-regulation help us?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

"Turning Red" Video or Video Clips

TASK/LESSON:

In this lesson, we are going to discuss how Mei was co-regulated by her friends. Co-regulation is when we share our calm with another and because of all the big emotions in this film, there were many times when we saw the characters share their calm! Embarrassment was a BIG emotion in this film, so let's talk about how we handle this feeling.

DISCUSSION QUESTIONS FOR STUDENTS:

- Middle school is a time when we can feel huge emotions like embarrassment, anger, loneliness, or anxiety? Who helps to co-regulate your huge emotions?
- How do they co-regulate with you?
- When you feel embarrassed, what do you say to yourself or how do you handle or work through that embarrassment?
- When we feel huge emotions in our body, how does our body respond? Do we get sweaty, chills, shorter breath, clammy hands, etc.? Can you draw or journal the sensations you experience when you have a huge emotion?

DIFFERENTIATION STRATEGIES:

 Students can draw, journal or share their responses in ways that tap into their interests and medium. We can create graffiti walls to share our connections to the film.

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

QUESTIONS FOR EDUCATORS TO DISCUSS WITH ONE ANOTHER

- 1. What are the ways you have experienced coregulation with others in your developing years and present time?
- 2. How is co-regulation deeply connected to repairing following ruptures with students?
- 3. We often carry traditional beliefs that we've never questioned into our teaching and parenting practices. Why do these feel so challenging to change?
- 4. Co-regulatory experiences are opportunities for us to model for our children and youth healthy and unique ways to find our calm and grounded nervous system state. Co-regulation looks different in the diverse needs of our students? Can you think of three or four ways co-regulation is integrated in your classroom or school?
- 5. Co-regulation sits at the heart or core of our discipline practices that create sustainable changes and yet, do we miss this opportunity so often? Why?
- 6. "Emotions are contagious." How is this statement connected with co-regulation?
- 7. Can you think and share a time in your life when you were eventually able to reframe an experience seeing the blessing instead of the curse?

TOPIC:

SOCIAL BRAINS AND ADOLESCENCE

GUIDING QUESTIONS:

What does it mean to be loyal?

What is a tradition?

Sometimes we are loyal to things, not just people. What traditions are you loyal to?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

"Turning Red" Video or Video Clips

TASK/LESSON:

Discussion Questions:

- We saw great loyalty between Meilin and her mother. What is your definition of loyalty?
- How do you know if someone is loyal?
- Can you draw loyalty or write a 10-word story about a time when you were loyal to someone, or someone was loyal to you?
- What is a long standing 'tradition' in your family that you enjoy? Is there a family tradition that you would like to change? Can you draw this or share with color, lines, shapes, or images?
- How does it feel or what do you do when you discover someone is not loyal or trustworthy?

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS:

• <u>"Turning Red"</u> Video clips



TOPIC:

SOCIAL BRAINS AND HUGE EMOTIONS

GUIDING QUESTION:

How can we help co-regulate others when there are big emotions?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- "Turning Red" Video or video Clips
- chart paper
- journals
- any art material

TASK/LESSON:

In a large group, we can discuss 'Big Emotions.'

Below are questions that students can respond to through art, partner work, discussion, or journaling.

- Can we use some colors, lines, and shapes drawing our HUGE emotions we recently experienced or share images that describe our HUGE emotion? HUGE emotions can also be quiet or lonely emotions! They don't have to be exploding with anger, but could be sadness, anxiety, depression, or loneliness.
- What is your panda when you have huge emotions?
- What caused your huge emotion?
- What caused a huge emotion in someone you know?
- The 'red panda' symbolizes huge emotions for Meilin, so what specific HUGE emotions did the "Red Panda" represent for Meilin? Maybe we can draw symbols of huge emotions in the form

RESOURCES FOR TEACHERS:

 Video Clip From <u>"Turning Red' showing Big</u> <u>Emotions</u>

QUESTIONS FOR EDUCATORS TO DISCUSS WITH ONE ANOTHER

- 1. What type of huge emotions are we carrying into our schools each day?
- 2. Do we have practices that feel regulating to our nervous systems so that we are not activated or triggered by the dysregulation seen in the behaviors that push our buttons?
- 3. What types of huge emotions do we experience in our classrooms?
- 4. How can we create awareness and check-ins of those emotions that serve us well and those huge emotions that can be disruptive, keeping us stuck in negative emotions.
- 5. Are we teaching our students about their neuroanatomy so that they understand why they feel the way they do based on how our brains and nervous systems are responding to experiences?
- 6. How are we beginning or ending our days and class periods with a nervous system check-in? Students can track their brain and body state with charts, sharing how they are feeling emotions and sensations in the different areas of their bodies? Below are two examples from our nervous system check-ins, our students are integrating each day.

CONTINUED

of animals? Could we use colors, lines, and shapes or other images of animals or things that represent our 'panda' for huge emotions?

- There are all types of huge emotions in these video clips. What do you notice as you watch these video clips?
- What part or parts of the brain are firing when we have huge emotions?
- Can our brains and nervous systems feel more than one emotion at the same time? Can you draw or write with examples you felt many emotions at once?
- Can big emotions help us? How?
- What happens to our thinking when big emotions take over? Can you give an example?

DIFFERENTIATION STRATEGIES:

- Draw and design a poster or ad for "Big Emotions"
- vocabulary visible to activate prior knowledge
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed



TOPIC:

SOCIAL BRAINS

GUIDING QUESTION:

What role does body language have in co-regulation?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

How to Train Your Dragon - Making Friends
 With A Dragon Scene

Discussion Questions:

- What did their eyes and moths say to one another without speaking?
- What feelings and sensations were exchanged in the first two minutes?
- At time marker 1:40 to 1:45 did your mirror neurons react? How?
- How did they both use their bodies to coregulate with one another?
- There was a shared calm at the end and what did the boy do to build trust?

TASK/LESSON:

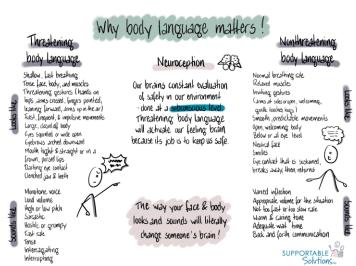
As we watch this video clip, we will ask students to notice how toothless and the boy communicated their feelings and needs nonverbally. Provide time for students to talk about discussion questions in partners, groups, or as a whole class.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- · pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND SECONDARY:



TOPIC:

SOCIAL BRAINS

GUIDING QUESTION:

What role does tone of voice have in co-regulation?

TEACHING TIME:

10 minutes

MATERIALS/PREP:

Discussion Prompts:

- Can you give examples of changes in your behavior based upon how others spoke to you?
- How do tones and sounds of voices affect you?

TASK/LESSON:

Share with the class that tones of voices matter to our nervous systems. When we are feeling shut down and collapsed, one of the only signals for our nervous system to feel safe is through a calm voice. Allow students to work in pairs and act out voices that feel calming to their nervous system. Provide time for students to reflect upon discussion prompts.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed

RESOURCES FOR TEACHERS:

ALL ELEMENTARY AND SECONDARY:

Why body language malters

Threatening oody language

Shallow, Lask breathing frome face, body, and muscles Threatening greatures (hands on lags, aims crossed, lyingus pointed, learing forward, aims up in the air Fast), frequent, 8 impolisive movements Large, closed all body Gyetrous, arched downward Mouth hight & Skraight or in a frown, parced laps Darking eye contact Lorchied jaw 2 keeth

Monotone voice loud volume ligh or low pitch Sarassic Hoshle or grumpy Fast rate Tense Interragating

Neuroception 423

Our brains constant evaluation of safety in our environment-done at a subconscious level. Threatening body language will activate our feeling brain because its job is to keep us safe

The way your face & body looks and sounds will literally change someone's brain!

Nonthreatening body language

Normal brestling cale
Relaxed nucles
Normal brestling cale
Relaxed nucles
Lares at seles or you, welcoming,
gankli colorle hugs)
Normally nevel level
Stope, welcoming; body
Below or all ope level
Smiles
Smiles
Smiles
Lares Alaxi is suskamed,
breaks Jaday then returns

Vaned inflection
Appropriate volume for the situation
Not too fast or too slow rate
Warm & Caring tone
Adequate wait time
Back and forth communication





TOPIC:

EMPATHY

GUIDING QUESTION:

How can we increase our empathy?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- get video ready for appropriate age group
- Vocabulary: empathy

TASK/LESSON:

Facilitate a discussion with the following questions:

- Do you ever feel like you should help someone but you don't when you are in a group of people? Watch this and think of a time when we did or did not!!
- Can animals teach us empathy?
- Can animals pick up on our emotions?

DIFFERENTIATION STRATEGIES:

Sentence Stems:
"Empathy is",

"A time I could've helped someone is _____

RESOURCES FOR STUDENTS & TEACHERS:

ELEMENTARY & SECONDARY: GRADES 2+

- The Importance of Empathy
- Empathy Can Change the World

TOPIC:

EMPATHY

GUIDING QUESTION:

How can we increase our empathy?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- get video ready for appropriate age group
- Vocabulary: empathy

TASK/LESSON:

Empathy is the ability to understand and share the feelings of another. Empathy is a learned trait and must be taught.

DIFFERENTIATION STRATEGIES:

- Add visuals for empathy
- Provide another modality for understanding the term: act it out/role play, connect to a real life example observed

RESOURCES FOR STUDENTS:

ELEMENTARY: GRADES 2 - 3

• Sesame Street: Mark Ruffalo: Empathy

ELEMENTARY 4+ AND SECONDARY:

- The Bystander Effect
- The Empathy Gap
- Eye Contact With Strangers Experiment
 In this video, there is much opportunity for discussion
 - What did you notice about the people who decided to participate?
 - o How did people who were observing react?
 - o How are our 'eyes' related to how we feel?



TOPIC:

ENGAGEMENT

GUIDING QUESTION:

How do we keep our brain engaged?

TEACHING TIME:

15 - 20 minutes

MATERIALS/PREP:

- Vocabulary: reticular activating system
- Videos ready to play based on age group

Note: Secondary video is 14 minutes, may need to break it into 2 viewings

TASK/LESSON:

Have you ever been driving for a long time, and then you realize that several minutes have passed, and you don't remember thinking about driving because you were in such a relaxed state of alertness? That's not how we want our brain to feel at school! We want to keep our brain engaged so our best learning can occur. We need novelty, curiosity, and sometimes even a brief state of confusion because the brain pays close attention to these types of experiences. This is because of our reticular activating system (RAS) in our brain stem. Today we're going to watch a video that helps us understand the reticular activating system.

Debrief with a discussion of takeaways and connections to previous knowledge.

DIFFERENTIATION STRATEGIES:

- chunk videos and pause for checks for understanding
- clap out new vocabulary words

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY & SECONDARY: GRADES 3+

Reticular Activating System

SECONDARY: GRADES 9+

Unlocking The Screen of Your Mind

TOPIC:

ENGAGEMENT AND ART

GUIDING QUESTION:

How does art help our brain stay engaged and calm?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

- Writing Journals (1 per student)
- Writing utensils (1 per student)
- Videos ready to play (based on class needs)
- Colored pencils/crayons/markers

TASK/LESSON:

We can share a variety of art materials with our students, providing time at the beginning of the day, following a transition, or at the end of the day with the following art activities.

Below are 3 artistic activities to help students express themselves. Choose what works best for your community:

WHAT DO MY COLORS SAY? Have students fill a sheet of paper with color, lines, and shapes for two minutes. Then ask questions like these: Which color is angry, which shape feels invisible or not seen? Which shape or color is tired or worried? What shapes or lines feel anxious? What name would you give your art? Why? You can ask how their images are like them, and how they are different.

MAPPING MY FAVORITE PLACE: Have students draw a map to their favorite real or imagined place, creating roads, paths, mountains, and hills, and showing the route to get there. They can use colors, lines, shapes, and symbols. Ask questions like these: In this place, who are the people you trust? What are the sounds, sights, smells, and

RESOURCES FOR TEACHERS:

- <u>Using Art to Help Students Find Their Calm</u>
 (Edutopia Article)
- Some Background From Dr. Lori Desautels:

Much like intentional breathing and rhythmic movement practices, the integration of art activities and practices can create a sense of safety and comfort, reducing stress. Art therapist Linda Chapman finds that "the inherent novelty of creation and self-discovery is life affirming and enlivening." Below are suggestions for art activities that can calm the nervous system.

When we hold morning or afternoon meetings, we can set these activities up by teaching students about the brain and the nervous system. We can talk about how impossible it is to think clearly or learn when we're feeling anxious, angry, or sad. We can discuss behaviors as clues or signals about an invisible injury or wound. We can share stories of times when we were feeling lonely, hurt, disconnected, or angry. And we can discuss how our brain is always trying to protect us when we begin to feel rough or dysregulated.

Drawing and creating art are powerful ways to help students express their sensations, feelings, thoughts, strengths, and preferences. Educator Ashlee Harmon and I share art practices we are integrating into our morning meetings and other procedures. Ashlee has created a Mindful Artists Club for her sixth-grade students, and they share and create art with younger students as well.

CONTINUED

colors? What feels calming or exciting about this place? Could you choose to go there in your mind when you're feeling anxious, upset, worried, or angry?

colors of MY HEART: Give each student a blank sheet of paper and set out markers or colored pencils to share. Students will then draw a large silhouette of a heart, enough to fill their entire paper. After drawing the heart, students can choose three or four colors that represent the emotions and sensations they are experiencing. Using these colors, students will fill in the space of their heart in textures, lines, or patterns of their choice. If students feel comfortable, they may share the colors of their heart with a partner or peer group.

DIFFERENTIATION STRATEGIES:

- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed



TOPIC:

MULTIPLE PREFERENCES FOR OUR NERVOUS SYSTEM

What brings me joy? What creates curiosity? What feels interesting to me? What helps me learn?

GUIDING QUESTION:

What are multiple intelligences?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Video ready to play for appropriate age group

TASK/LESSON:

The question we need to begin asking ourselves and our students is:

"How are you smart?" NOT... "How smart are you?"

Explain that we all learn in different ways

DISCUSS:

What brings me joy?

What creates curiosity?

What feels interesting to me?

What helps me learn?

DIFFERENTIATION STRATEGIES:

- provide sentence stems for processing time: "Something that brings me joy is "Something that helps me learn is _____"
- consider pausing video strategically to discuss or check for understanding

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2-4

8 Intelligences

SECONDARY: GRADES 5+

- Multiple Intelligences
- Born to Learn

TOPIC:

MULTIPLE PREFERENCES FOR OUR NERVOUS SYSTEM

What brings me joy?
What creates curiosity?
What feels interesting to me?
What helps me learn?

GUIDING QUESTION:

What are multiple intelligences?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

Video ready to play for appropriate age group (if you didn't play in previous lesson)

TASK/LESSON:

Explain that today we will finish up our discussion from yesterday. Ask students if there's anything they want to add that they didn't get a chance to share yesterday. There are many ways of being smart. Ask about if there's any connections they can make based on the video we watched yesterday.

ASK:

How are you smart?

You were born to learn, so then what are you learning?

DIFFERENTIATION STRATEGIES:

- provide sentence stems for processing time:
 "Something that brings me joy is _____"
 "Something that helps me learn is _____"
- consider pausing video strategically to discuss or check for understanding

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2-4

8 Intelligences

SECONDARY: GRADES 5+

- Multiple Intelligences
- Born to Learn

TOPIC:

MULTIPLE PREFERENCES FOR OUR NERVOUS SYSTEM

What brings me joy? What creates curiosity? What feels interesting to me? What helps me learn?

GUIDING QUESTION:

What are your learning strengths and challenges?

TEACHING TIME:

20 - 30 minutes

MATERIALS/PREP:

Videos ready to play (based on class needs)

TASK/LESSON:

Explain that we've been learning about all the different ways people learn new things and how our brains work differently. Let's look at our own intelligences! Today we'll spend time understanding HOW we learn best through using different tools. Spend the next couple of days digging into strengths and reflecting.

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR TEACHERS AND STUDENTS:

ELEMENTARY: GRADES 2-4

Multiple Intelligences <u>Assessment: Find Your Strengths</u>

SECONDARY: GRADES 5+

- Multiple Intelligences Inventory
- Matching careers to multiple intelligences
 - o <u>Bestcareermatch.com</u>
 - <u>Using Multiple Intelligences Theory in</u>
 <u>Choosing a Career</u>



TOPIC:

HEALTHY BRAINS

GUIDING OUESTION:

How does water help our brain and nervous system?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Writing Journals (1 per student)
- Writing utensils (1 per student)
- Videos ready to play (based on class needs)
- Colored pencils/crayons/markers

TASK/LESSON

Explain that today we'll talk about the importance of being hydrated. What does that word mean? Who has heard that word before?

Did you know that being dehydrated by just 2% impairs performance in tasks that require attention, movement and memory skills?

Can you think of a time when you felt dehydrated? (What is dehydration?) You can share by drawing, discussing, or writing about these times? What did you feel in your brain and body? Were you tired, not able to think clearly, or moody?

Let's track our water intake for one week and see the patterns, times, and results!

RESOURCES FOR TEACHERS AND STUDENTS:

GRADES 2ND -4TH:

Why Do We Drink Water? | Importance Of Water
 | Stay Hydrated | The Dr Binocs Show |
 Peekaboo Kidz

GRADES 4TH AND UP:

- What If We Drank Cola Everyday?
- What would happen if you didn't drink water? -Mia Nacamulli



DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

HEALTHY BRAINS

GUIDING QUESTION:

How does sleep help our brain?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Videos ready to play (based on class needs)
- Discussion questions on the board (as needed)

TASK/LESSON:

Let's talk about sleep! Watch some videos and facilitate a discussion with the whole class and in partnerships based on the questions below:

Questions to discuss with our small groups or partners:

- Do you have trouble falling asleep?
- Do you wake up a lot in the middle of night?
- Is it difficult to wake up in the morning?
- What is your routine before you go to bed?
- There are science facts about what we need to begin having a restful night's sleep.
- Is it dark and quiet where you sleep?
- Do you have a regular routine?\
- Do you have caffeine before you go to sleep?
- Are there certain nights it is easier to fall asleep or harder?

Let's track our sleep together for a few days and then change one or two things about our sleep habits after we watch these videos! When we practice our routines, we have created neuroplasticity for our sleep habits!

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- How Your Nervous System Works & Changes
 Huberman Lab Podcast #1
 (time marker 41:20)
- Brain Basics: Sleep and the Brain with Lee Constable!
- Why Do We Sleep? The Dr. Binocs Show |
 Best Learning Videos For Kids | Peekaboo Kidz

RESOURCES FOR TEACHERS AND STUDENTS:

ALL SECONDARY:

- Why sleep is so important | Kids Helpline
- 6 tips for better sleep | Sleeping with Science,
 a TED series
- How Your Brain Works While You Sleep |
 Better | NBC News

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

TOPIC:

HEALTHY BRAINS

GUIDING QUESTION:

How does exercise help your brain?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- Writing Journals (1 per student)
- Pens/writing utensils (1 per student)
- Space to move
- Video ready to play (choose from resources based on class need)
- MOVEMENT CHALLENGE: Can we begin with five minutes of movement each day and build in one minute for two weeks? (written on board or chart paper)

TASK/LESSON:

In this lesson in small groups, let's guess why movement and exercise are healthy for our brains! Together with your group take two minutes and share guesses as to why exercise is beneficial!

We will watch a couple of the short videos and check our responses. Play appropriate video for age group

- What did you learn?
- Were you surprised?
- How often do you move 10 minutes at a time?
- What parts of the brain does exercise impact?

DIFFERENTIATION STRATEGIES:

- vocabulary visible to activate prior knowledge
- emotions word wall/chart
- pre-teach vocabulary as needed
- allow students to respond in whichever way works best for them: verbal expression, gestures, and/or act it out, alternative communication systems
- provide sentence stems as needed
- provide additional processing time as needed
- provide individual models as needed

RESOURCES FOR STUDENTS:

GRADES 1ST - 3RD:

- Brain Break → Exercise Songs Learning Station
- <u>Freeze Dance | Freeze Song</u> The Kiboomers
- The Floor Is Lava 🎝 The Kiboomers

RESOURCES FOR OLDER STUDENTS AND TEACHERS:

GRADES 4TH-12TH:

- How Exercise Affects the Brain
- Run, Jump, Learn! How Exercise can Transform our Schools: John J. Ratey, MD at TEDx
- The brain-changing benefits of exercise | TED
- Neuroplasticity and Exercise: We Are Wired to <u>Fire</u>



credit- julos

TOPIC:

APPLIED EDUCATIONAL NEUROSCIENCE

GUIDING QUESTION:

What have you learned and how will you use this learning going forward?

TEACHING TIME:

10-15 minutes

MATERIALS/PREP:

- brain anchor chart from previous lessons
- any previous vocabulary

TASK/LESSON:

SO...NOW WHAT? Looking back on what has been covered in these lessons, what do you now know about the brain?

Maya Angelou is quoted as saying, "When you know better, you do better." How does knowing about your neuroanatomy and the amazing functions of your brain change the way you look at the future? Reflect in groups, write, draw...How will you apply this knowledge moving forward?

STUDENT SURVEY: PRINTABLE SURVEY

Suggest creating in a google doc or writing on the board ahead of time:

1.	Learning about my brain and nervous system was helpful:
	agreedisagree
2.	When I have big feelings, I think about what my brain and body are
	telling me agreedisagree
3.	I enjoyed how we learned about our brains and body each day.
	agreedisagree
4.	When we talked about ways to calm our brain, I was able to try these at
	home and at school agreedisagree
5.	I would love to learn more about my brain and nervous system.
	agreedisagree
6.	My classes make sure I feel safe and pay attention to how I learn best.
	agreedisagree
7.	Something that I learned that was helpful was
8.	Was there anything about these mini-brain lessons that you didn't like o
	would change?

RESOURCES FOR TEACHERS:

ALL ELEMENTARY: AND SECONDARY:

- Applied Educational Neuroscience
 Framework: What It Is and Why We

 Need It Now More Than Ever Before
- <u>Teaching Through Trauma With the</u>
 <u>Applied Educational Neuroscience</u>

 <u>Framework or Printable Article</u>
- Teaching and Learning Lab | <u>Discussion</u>
 <u>Protocols Handout</u>
- Applied Educational Neuroscience In Elementary Classrooms: A Grounded Theory Study
- Hearing From Our Students- <u>Applied</u> <u>Educational Neuroscience in the</u> classroom: A panel discussion
- Applied Educational Neuroscience: Framework Overview
- How is this framework supporting trauma responsive practices? <u>Applied</u> Educational Neuroscience Framework

DIFFERENTIATION STRATEGIES:

Sentence Stems:

- "One way I will use this knowledge is_"
- "Something I learned this year about the brain is "

ADDITIONAL WESOURCES:

- Internet Neuroscience Resources for Kids
- Parenting Article: Emotional Regulation in Children | A Complete Guide
- Brain Games: Pinterest
- The Learning Brain Video
- Working Memory Game For Teachers
- SoulPancake | Participant
- Brain-Aligned Strategies: Addressing the Emotional, Social, and Academic Health of all Students
- Graduate Project: Neuroscience Tool Kit for the Elementary Classroom
- Content Presence Learning-Brain Aligned Strategies: Resource-Kit
- MORE FREE TEACHING RESOURCES added year round | www.revelationsineducation.com