

# Start with the Heart

# Engage 9-12

# Introduction

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#### About Pure Edge, Inc.

PURE EDGE, INC. (PEI) is a private operating foundation that provides direct service to organizations through professional development and strategy thought partnership. PEI also provides grants to national organizations that advance the work of whole child development and Social and Emotional Learning (SEL).

### **Our Approach**

The full Pure Power curriculum reflects the philosophical orientation and instructional recommendations advocated by the Joint Committee on National Health Education Standards and best practices for health and wellness, including exercises, physical therapy, mindfulness, and nutrition.

Effective health and wellness education promotes critical thinking in students and encourages them to make connections between concepts around healthy living and personal experience. Young people need to be reflective decision-makers. They must learn to identify and analyze how culture, media, and technology shape their everyday physical, mental, and emotional health.

Research completed by the National Association for Sport and Physical Education (NASPE) and the Centers for Disease Control and Prevention (CDC) reveals that there is a direct relationship between academic achievement and fitness. Movement and exercise enhance the learning state for memory retention and retrieval. Therefore, physical activity is a catalyst for learning in all content areas and should be an essential element of students' daily routines.

The knowledge that students gain through this program enhances their own health and wellness, as well as the health and wellness of their peers and community. The program promotes a supportive environment where individuals' similarities and differences are acknowledged and accepted.



# About Start with the Heart: Engage

**START WITH THE HEART: ENGAGE** weaves Brain Breaks into foundational lessons from the original Pure Power curriculum for grades nine through twelve. The content portion of each lesson invites learners to examine what we need to support our own well-being. This involves exploring the body's stress response, understanding the role of the brain and the nervous system, reflecting on our habits, and learning about the practice of mindfulness. Alongside the topical content of each lesson, the curriculum offers simple, life-enhancing, research-based exercises that build learners' ability to manage the stress in their lives. These breathing, mindful movement, and rest or relaxation exercises are skills that learners can practice for the rest of their lives. The skills support learners' SEL competencies in the areas of selfawareness and self-management.

We designed the curriculum with ease of delivery as a top priority. Each lesson can be delivered in about 30 minutes. Instruction is scripted. Video supports for almost all of the Brain Breaks are available on pureedgeinc.org. Many lessons also include an optional group activity, which extends the lesson time and allows learners to go a little deeper in their exploration of the topic at hand or the exercises of the day.

- Advisory classes
- Elective classes •
- Freshman seminar

- Daily
- Two or three times a week
- days will support retention and maximize impact).

#### The curriculum meets SEL, health, science, and PE standards.

- Builds resilience
- Teaches stress management skills that are simple to implement
- Explores the neuroscience of stress and helps learners understand their own stress responses

Our hope is that **START WITH THE HEART: ENGAGE** will make it easy for you to share simple practices and explore academic content with learners in support of their physical, mental, emotional, and academic well-being.



The curriculum can be used and adapted in any course. It aligns well with:

We recommend delivering on a consistent schedule, at the same day and time.

• Weekly (If teaching weekly, incorporating Brain Breaks on non-lesson

# Lesson One

# The Power to Shine

#### **GUIDING QUESTIONS**

What does health mean to you? What does wellness mean to you?

#### OBJECTIVE

Identify two benefits of breathing exercises and/or nasal breathing.

## Ļ

#### **TEACHER TIPS**

- In this course, the experiential exercises (Brain Breaks) are as important as the content.
- After each Brain Break in lesson one, take feedback from learners: Would anyone like to share something they noticed?
- You may get a variety of responses—physical observations; emotional states; thoughts.
- Reinforce the idea that anything learners notice is okay; we are simply noticing what we observe with a sense of kindness toward ourselves.
- Make room for a range of experiences and responses. For example, if two or three learners say they feel "relaxed" or "calm," you can ask, "Does anyone not feel relaxed?" Even if no one speaks up, this creates space in the room for learners to have and accept different experiences.

#### Connect

Welcome to health and wellness. These lessons might be a little different than your other classes. Your other classes primarily focus on external subjects, such as math, English, or history. In this class, however, the central subject is you.

For the purposes of this course, "health" is everything related to your body—your muscles, bones, internal organs, and brain. We will be paying special attention to how we can tune in to certain functions of the brain.

"Wellness" is everything related to thoughts and emotions—understanding how they arise and understanding how we can use them constructively to achieve well-being in our lives.

As we learn about topics related to our health and wellness, we are also going to be learning practical exercises to support our well-being.

We will learn three types of exercises: breathing, mindful movement, and rest or relaxation. These exercises will strengthen the body, calm the mind, and help us manage our emotions.

Let's get started by trying our first exercise.

## VOCABULARY

health wellness well-being

# BRAIN BREAKS

Mindful Minute Seated Mountain Anchor Breathing Even In, Even Out Chair Twist

### Brain Breaks 1 and 2

#### SEATED MOUNTAIN

Seated Mountain is the foundation for all seated and breathing exercises.

#### MINDFUL MINUTE

#### Teach

The next exercise we will learn is a breathing exercise. Did you know that we breathe 15 times per minute, which means we breathe 21,600 times per day? Some people say they don't know "how to breathe," but breathing happens automatically and effortlessly.

Why do you think we might need to do breathing exercises?

- Full, deep breathing brings oxygen to all parts of the lungs. Most of the time we only breathe into the bottom portion of the lungs.
- Fuller inhalations allow oxygen exchange to happen over a greater surface of the lungs and within the bloodstream.
- Full exhalations help remove carbon dioxide from red blood cells.
- When your blood is more oxygenated, all of your internal organs become better oxygenated too, which in turn provides your body with more energy.

In our health and wellness exercises, we will use nasal breathing unless otherwise instructed. This means we will breathe in and out the nose.

# Brain Break 3

#### Teach

Here are a few reasons why we recommend nasal breathing:

- Nasal breathing filters dust and impurities from the air.
- The diaphragm, which is a sheet of muscle underneath the lungs that serves as the primary muscle of breathing, is more easily controlled.
- When the breath is long and slow, you can calm the nervous system and focus your mind.
- Extending the exhale induces relaxation, as does relaxing the tongue and surrounding facial muscles.



#### OPTIONAL GROUP ACTIVITY

Think of a place, time, or community in your life where you felt you were able to truly be yourself and belong. What did that feel like? What elements were there that supported you?

If time allows, have learners write, draw, or talk in pairs about what elements in a community support their sense of belonging. They can share with the large group.

Make a connection between this sense of belonging and any classroom norms or guidelines you would like to establish as your group works together to establish a safe classroom environment.

## Brain Break 5

CHAIR TWIST

#### Link

Take a moment to consider how you felt (physically and mentally) at the start of class and how you feel now that you've practiced these simple exercises.

#### Home Practice

Throughout the rest of the day/week, notice where, when, and with whom you feel safe and secure. Identify what it is about the place you are in or the people you are surrounded by that helps you feel safe and secure.

## Lesson Two

# What Is Stress?

#### GUIDING QUESTION

How can we distinguish between healthy and unhealthy stress?

#### **OBJECTIVE**

Identify potential sources of physical, emotional, and social stress.

VOCABULARY

adrenaline cortisol stress

## TEACHER TIPS

- Continue to seek feedback from learners after the Brain Breaks.
- Continue to emphasize the importance of noticing their experience with a sense of kindness.
- Explain that we will always start the class with the Mindful Minute as a way to check in with ourselves.



#### **BRAIN BREAKS**

Mindful Minute Anchor Breathing Ocean Breath Recharge Sequence Guided Rest Brain Break 1

MINDFUL MINUTE

#### Connect

In our first lesson, we began to explore how investing in our own health and wellness can support our well-being. We learned about some of the physical benefits of breathing through the nose and how we can "hack" our brains through conscious breathing. Can anyone remember any of the benefits of nasal breathing?

One thing that affects our well-being is stress. In this lesson, we will start learning about the physiological purpose of stress.

#### Active Engagement

Think about something stressful to you. Now notice: Where do you feel that stress in your body?

Take a few responses from learners. You will hear a range of responses. Underscore that stress is something we experience not only in the mind but also in the body.

Now let's think about something joyful. Where do you feel joy in the body?

Take a few responses from learners again. Emphasize that we are including joy to remind ourselves to also focus on positive experiences. Brain Break 2

#### Teach

The nervous system uses stress in order to respond to the world around us. Some stress is good, and some stress is bad—it all depends on how much of it there is, what form it takes, and where it is directed.

We tend to think of stress as a negative force, but it is actually one of nature's most essential processes. Stress initiates and responds to movement in the body. When we get up to walk across the room, our bodies release two hormones: cortisol and adrenaline. These hormones carry the messages that let our bodies know it's time to perform an activity. Our bodies then respond to these messages by increasing our heart rates and shifting the rhythm of our breath ever so slightly, among other things.<sup>1</sup>

Cortisol and adrenaline are also released when our environments demand that we are alert and focused. For example, if you have a big test coming up, you might state that you feel stressed out. Various factors in your environment have the potential to flip the stress switch, some more than others.

Something that causes stress for you might not cause stress for your best friend, and some things cause so much stress that your levels of adrenaline and cortisol are too high for you to feel healthy and well. Being able to mindfully identify stress is one of the key factors to effective self-regulation.

### Active Engagement

Exercise and mindfulness practices help flush excess cortisol from our systems. If you feel an inkling of stress before we get our bodies moving, notice if there is any reduction in stress during or after rest.<sup>2</sup>

# Brain Breaks 3 and 4 OCEAN BREATH

Learners can use Ocean Breath when they do Recharge Sequence.

### Active Engagement

Bringing our attention to specific parts of the body can help us become aware of stress and tension that we are holding without realizing it. As we move through this guided rest exercise, see how the power of your attention alone can help your body relax.

# Brain Break 5

#### Link

Mindfully identifying your physical and emotional reactions to stress is a learned skill. If you work on developing this skill every day, you will gradually become more attuned to your needs.

#### Home Practice

Try to notice when your stress response kicks in during the day. How does it feel when a teacher calls on you and you are not prepared? How does it feel when you actually know the answer to a teacher's question, but in your excitement, you draw a blank? Remember that your secret weapon against stress is mindful breathing. When you start to sense familiar stress signals, focus on long, slow exhales to help your body and mind calm down.

1 "Understanding the stress response," Harvard Health Publications, 2016. http://www.health.harvard.edu/ staying-healthy/understanding-the-stress-response.

2 "Exercising to relax," Harvard Men's Health Watch, Harvard Health Publications, 2011. http://www.health. harvard.edu/staying-healthy/exercising-to-relax.

# Lesson Three

Sympathetic and Parasympathetic Nervous Systems

#### **GUIDING QUESTIONS**

What is the sympathetic nervous system, and when should it be dominant?

What is the parasympathetic nervous system, and when should it be dominant?

#### **OBJECTIVE**

Characterize and contrast the main functions of the sympathetic and parasympathetic nervous systems.

# **TEACHER TIPS**

- Continue to ask for feedback after some Brain Breaks: it is not necessary to do feedback every time.
- Explain that the repetition of the Brain Breaks is intentional; we learn these types of exercises best through repetition.

## Brain Break 1 MINDFUL MINUTE

#### Connect

Last time, we defined and discussed stress and noticed how it feels in our bodies. Today, we will take a look at the sympathetic and parasympathetic branches of the nervous system and how the wellness exercises we are learning can affect our stress response.

> Brain Break 2 💭 EVEN IN, EVEN OUT

#### Teach

There are two branches of the autonomic nervous system that are functioning all the time: the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). "Autonomic" means "involuntary." The sympathetic nervous system rules everything in our body that expands, or moves toward activity. The parasympathetic nervous system rules constriction and rest. Dilation of the pupils, for example, occurs via the sympathetic nervous system, while constriction of the pupils occurs via the parasympathetic nervous system.

The sympathetic nervous system provides the fuel required to engage with and take care of circumstances outside the body.<sup>2</sup>

### VOCABULARY

autonomic nervous system sympathetic nervous system parasympathetic nervous system

## 

#### **BRAIN BREAKS**

Mindful Minute **Even In, Even Out Recharge Sequence Guided Rest** 

The sympathetic nervous system rules our fight-or-flight response, which is how our body responds to perceived danger. In a sympathetic state, the body does not have the energy it needs to heal from sickness or injury, digest food or information, or restore itself. We live in a fast-paced, technology-driven world, so our sympathetic branch is activated more often than the parasympathetic one.

In order to recover from and prepare for our interactions with our external environments, the parasympathetic system must have the upper hand.<sup>3</sup> The parasympathetic system helps return the body to a state of balance after a sympathetic response. While the sympathetic nervous system is known to rule fight-or-flight, the parasympathetic nervous system rules "rest and digest." In a parasympathetic state, our inhalations and exhalations become smooth and quiet and the nervous system becomes calm.

Wellness practices like Brain Breaks counter unnecessary activation of the sympathetic nervous system through even breathing, long exhalations, deep rest, and the repetition of positive, peaceful thoughts.

### Active Engagement

As we do the next movement exercise, notice if and how your inhalation boosts your energy and if and how your exhalation winds you down.

## Brain Break 3

**C** RECHARGE SEQUENCE

Learners can use Ocean Breath when they do Recharge Sequence.

### OPTIONAL GROUP ACTIVITY

As a class, identify activities in the day that activate one's sympathetic nervous system and activities that activate one's parasympathetic nervous system. Do students feel they are in balance, or do they need more of either sympathetic or parasympathetic activity?

Note: While screen time can feel "relaxing," it actually activates the body's stress response.<sup>4</sup>

> Brain Break 4 GUIDED REST

### Link

Even though the autonomic nervous system governs involuntary functions, we are able to influence the quality of its operation. By mindfully tuning in to what is happening within us and around us, we can learn to regulate our emotions and reactions, thus avoiding unnecessary or unwanted stress.

### Home Practice

Begin to hone your awareness of your own autonomic nervous system. Notice when you feel rushed, energetic, hyper, or worried that's sympathetic. Notice when you feel relaxed, at ease, mellow, or unperturbed that's parasympathetic. Which one is turned on more often?

1 Eric H. Chudler, "Autonomic Nervous System," Neuroscience for Kids, University of Washington, 2014. https://faculty.washington.edu/chudler/auto.html.

2 "Sympathetic Nervous System," Encyclopedia Britannica, 2016. http://www.britannica.com/science/ sympathetic-nervous-system.

3 "Parasympathetic Nervous System," Encyclopedia Britannica, 2016. http://www.britannica.com/science/ parasympathetic-nervous-system.

4 V. L. Dunckley, "Screens and the Stress Response," Psychology Today, November 17, 2012. https://www. psychologytoday.com/us/blog/mental-wealth/201211/ screens-and-the-stress-response.



#### PARASYMPATHETIC nervous system



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#### SYMPATHETIC/PARASYMPATHETIC NERVOUS SYSTEMS

# Lesson Tour

# What is Mindfulness?

#### **GUIDING QUESTION**

What is mindfulness?

#### OBJECTIVE

Define mindfulness.

# E TEACHER TIPS

 As you introduce the Brain Breaks today, emphasize that it is natural and expected for the mind to get distracted during the exercises.
When a learner notices that their mind has wandered, they should simply bring their attention back to the breath. This process of continually bringing one's attention back to the point of focus is how learners will strengthen the mindfulness muscle.

### 

#### VOCABULARY

mind mindfulness mndfulness muscle

# BRAIN BREAKS

Mindful Minute Even In, Even Out Stork Mindful Listening

# Brain Break 1

#### Connect

Last time, we learned how Brain Breaks can help our bodies move out of the fight-orflight response ruled by the sympathetic nervous system and into a more calm and peaceful state ruled by the parasympathetic nervous system. In this lesson, we will continue to learn how to strengthen and balance our minds through a wellness technique known as "mindfulness."

# Brain Break 2

#### Teach

The word "mind" developed from the Old English word "gemynd," which translates to "memory" or "thought." Our minds are full of thoughts, in the form of questions, plans, daydreams, worries, hopes, and ideas.

Often we are too busy or distracted to actually notice most of these thoughts, but thoughts are the basis of most of what we say and do.

Mindfulness can be defined as "the ability to notice what is happening as it is happening." This sounds simple, but we know from experience that it is not necessarily easy to notice what is happening as it is happening, even if we are just trying to notice what is happening in our own minds.

Mindfulness practice is one way to improve our ability to become more aware of what we are thinking. Since the mind is involved in nearly every aspect of daily life, it is important to work our "mindfulness muscle." We work the mindfulness muscle every time we notice what we are thinking. We work the mindfulness muscle every time we realize we have become distracted and make a conscious choice to bring our attention back to a particular point of focus. In our Brain Breaks exercises, that point of focus more often than not is the breath. (Posture, gaze, or feelings are other examples of points of focus.)

As we work the mindfulness muscle, it is essential to do so with a sense of kindness and curiosity for what we observe.

#### Active Engagement

As we do the following Brain Breaks, try to keep your attention on your breath and posture. When you notice that your mind has wandered, bring it back to your point of concentration. It is not bad or wrong for your mind to wander; in fact, it is expected!

### Brain Break 3

**STORK** Learners can use Ocean Breath.

### Active Engagement

Mindfulness is not about determining whether what you are thinking is right or wrong. We are simply noticing that the mind has wandered or that the mind is filled with thoughts, then gently guiding it back to where we want or need it to be.

As we practice our final Brain Break today, remember to observe your mind without judging yourself when your mind decides to wander. When you notice the mind has wandered, simply bring it back to your point of focus.

## Brain Break 4

MINDFUL LISTENING

#### Link

Today, we became acquainted with the basic definition of mindfulness, which is the ability to become aware of what is happening as it is happening. In our next lesson, we will continue to develop mindfulness by paying close attention to the body.

### Home Practice

Until we meet again, set a goal of noticing ten thoughts a day. Simply notice what you are thinking. If you are trying to focus on a conversation, a task, or a project, notice when your attention wanders from that conversation, task, or project. Then flex your mindfulness muscle and bring your attention back.



# Mindfulness of Body

#### **GUIDING QUESTIONS**

When do you notice your body's messages?

How do you usually respond to your body's messages?

#### OBJECTIVE

Demonstrate mindfulness of body by locating and naming past or current physical feelings.



### L **TEACHER TIPS**

- During today's Mindful Minute, you can bring the learners' attention to different parts of the body after they notice the breath.
- We are fine-tuning the learners' ability to pay attention to the body in today's exercises. That they notice and how they notice (in the present moment, with an attitude of kindness and curiosity) is more important than what they notice.



#### **BRAIN BREAKS**

Mindful Minute Mountain/Chair Strength Sequence Stork **Guided Rest** 

## Brain Break 1 MINDFUL MINUTE

### Connect

In our last lesson, we became acquainted with the basic definition of mindfulness, which is the ability to become aware of what is happening as it is happening. In this lesson, we will continue to flex our mindfulness muscles by paying close attention to the body.

### Teach

Our bodies send us messages throughout the day. Can you name one message your body has sent you so far today (e.g., hunger, fullness, tiredness, alertness, warmth, cold)? Name one thing you are feeling in your body right now.

When we become mindful of the body, we notice the state of the body as it is right now. There is no right or wrong way to be mindful of the body, and there is no right or wrong way to feel in the body. Our objective is simply to grow our awareness of what we are experiencing as we are experiencing it.

The body is our most concrete tool in mindfulness practice. Our breath and our thoughts are slightly more ephemeral. But the muscles, bones, organs, and nervous system are all part of an intelligent, complex feedback loop that is inextricable from our

intellectual and emotional lives. Gradually, as we observe the state of the body over time, we begin to more clearly observe thoughts and feelings as well.

Let's give it a try and carefully observe the feelings in the body as we practice our next Brain Break.

## Brain Break 2

MOUNTAIN/CHAIR STRENGTH SEQUENCE Learners can use Ocean Breath.

#### OPTIONAL GROUP ACTIVITY

Before the next exercise, have the class brainstorm feeling words that can apply to the body: heavy, light, energized, tired, alert, warm, cold, hungry, full, expansive, contracted, sore, sweaty, painful, strong, steady, unbalanced...

### Active Engagement

As we move through the next posture, continue to notice sensory or motor activity occurring in different parts of the body. Bringing yourself back to the essential components of the exercise—posture, breath, gaze—is excellent strength and resilience training for the mindfulness muscle.

### Brain Breaks 3 and 4

#### STORK

During the exercise, ask learners to bring their attention to specific parts of the body and notice what they feel (e.g., standing leg, chest, arm).

GUIDED REST

#### Link

Our goal today was to simply focus our attention on the feelings in our bodies. When we observe the feelings in our bodies without judgment, we are strengthening our mindfulness muscle. Next time we will explore the mind-body connection further by looking at the vagus nerve, known as the messenger between mind and body.

#### Home Practice

Choose specific times of the day to check in with how and what your body is feeling ideally, once in the morning, once in the afternoon, and once in the evening. Note whether your physical sensations change from check-in to check-in. Also note whether your physical sensations do or do not seem influenced by or connected to external inputs (e.g., weather, food, sounds, smells, activity, social interactions).

MINDFULNESS OF BODY 19