



## **“Pay Attention!”: A Curriculum Unit on Mindful Awareness in the 3-5 Classroom**

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Oakhurst Steam Academy

This curriculum unit is recommended for:  
3<sup>rd</sup> – 5<sup>th</sup> grade

**Keywords:** mindfulness, mindful awareness, attention, guided practice, mindful breathing, mindful seeing, mindful hearing, problem-based learning

**Teaching Standards:** See [Appendix 1](#) for teaching standards addressed in this unit.

**Synopsis:** In this curriculum unit, students will participate in a problem-based learning project that focuses on helping an inattentive, struggling class. Before presenting solutions to this problem, students will learn key components that promote positive mental health and well-being, with the goal of improving attention. Students will learn about the field of neuroscience to better understand the function of the brain and nervous system. In addition, they will learn about the concept of neuroplasticity and how their brain regulates emotions. Students also will learn about mindful awareness, or the intentional non-judgmental awareness of the present moment. They will learn and practice mindful awareness (mindful breathing, mindful seeing, and mindful listening) to develop focused attention, emotional balance, and well-being. To gauge levels of understanding of the content, students will create presentations demonstrating learned mindfulness strategies and exercises to the inattentive, struggling class. In addition, students will complete a post mindfulness self-assessment that will be used to gauge their current application levels of mindful awareness. This data should be compared to data collected at the beginning of the unit to gauge student learning.

*I plan to teach this unit during the coming year to 20 students in 3<sup>rd</sup>-5<sup>th</sup> grade during Oakhurst Steam Academy’s designated club enrichment time.*

*I give permission for Charlotte Teachers Institute to publish my curriculum unit in print and online. I understand that I will be credited as the author of my work.*

# “Pay Attention!”: A Curriculum Unit on Mindful Awareness in the 3-5 Classroom

*Jordan Barnhill*

## Introduction

Walking around an elementary school building, one might hear phrases such as “Shhh,” “you need to learn to work together,” “you’ll need to know this when you get older,” “Is that respectful?” and “I’ll wait.” One of the most commonly used phrases among classroom teachers is “pay attention.” Throughout the school day, teachers are asking, telling, and demanding students to be mindful of and pay attention to the board, lesson, or his or her voice. Teachers beg for students’ attention because teachers understand that, although there is a bit of learning that occurs through unconscious processes, most learning begins upon what we rest our attention.

Students, as well as adults, face three major challenges when attempting to “pay attention.” The first challenge is that more often than not, the human brain seeks stimulation. This becomes problematic when a person is looking for stimulation outside where they need to or where the teacher wants them to focus. A second major challenge to mindfulness is distractibility. People have penetrable filters between themselves and the world around them--any little thing can draw their attention away. The third major challenge to attention, one that is not necessarily so obvious, is concentration fatigue. Our ability to focus deteriorates with time due to exhausting our “attention tank.”<sup>1</sup> Because of these challenges, training in mindful awareness, or “the awareness that arises when we pay attention, on purpose” is central to the core mission of teachers in education.<sup>2</sup>

## School Demographics

The context for the creation of this unit is Oakhurst Steam Academy in Charlotte, North Carolina. Oakhurst Steam Academy is a partial Title I, partial magnet elementary school in the Charlotte Mecklenburg School District (“CMS”). At this time, Oakhurst Steam Academy has 625 students enrolled. Of those 625 students, 272, or 43.5%, are females and 353, or 56.5%, are males. Oakhurst Steam Academy has a diverse student body in that 40.5% are classified African American, 29.9% Hispanic, 19.4% White, 5.6% Asian, and 4.6% “Other.” In addition, the school identifies 169 students, or 27% of the school population, as English Language Learners and 80 students, or 12.8% of the school population, as Students with Disabilities (“SWD”). Finally, the North Carolina Report Card for Oakhurst Steam Academy indicates that 48.1% of students are economically disadvantaged as compared to 46.5% of students across the state.

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<sup>1</sup> "Tackling the Challenges of Attention." Mindful: Educators Community, 2019, accessed September 10, 2020, <https://mindfuleducators.mindful.org/2019/08/21/tackling-the-challenges-of-attention/>.

<sup>2</sup> Hawkins, Kevin. *Mindful Teacher, Mindful School: Improving Wellbeing in Teaching and Learning*. SAGE Publications Ltd, 2017.

School disciplinary data from the last two years served as a motivator in creating this unit on “paying attention” or mindfulness. During the 2017-2018 school, 52 students were recorded as having at least one in-school-suspension. That same year, twelve students were recorded as having at least one out-of-school-suspension. The following 2018-2019 school year, 27 students received at least one in-school-suspension and 18 students received at least one out-of-school-suspension. Due to the world-wide pandemic and consequential closure of schools, disciplinary data is not available of the 2019-2020 school year. However, based on the large number of school suspensions the previous two years, behavioral interventions, social-emotional lessons and mindfulness units are warranted during this 2020-2021 school year.

## Rationale

With heightened academic pressure trickling down to students as early as kindergarten, resulting in less time for play and the arts, children today are faced with an unprecedented amount of stress and anxiety. According to the American Academy of Pediatrics, such early stress levels can negatively impact learning, memory, behavior, and both physical and mental health.<sup>3</sup> In addition, in his book *Focus*, psychologist Daniel Goleman expresses concern about the impact on students of modern technology through the reduction of in-person interactions. He argues that increased interaction with digital screens can pose a threat to neuronal development and students’ capacity to attend fully to their work.<sup>4</sup>

In addition to the challenges of academics and use of modern technology, students come to school bearing the weight of stressors such as family-system disturbances, peer conflicts, socio-economic disadvantages, and vulnerabilities to health risk factors. Depending on the child and the specific situation, these stressors may accumulate and be toxic to his or her development and learning. Stress that is sustained and/or significant is likely to leave an impact on the child’s well-being, general functioning, and ability to learn due to impediments on executive function and working memory.<sup>5</sup> In fact, research suggests that the developing brain is impacted heavily by excessive stress.<sup>6</sup>

Because many learning, behavioral, attentional, and/or mental health problems are induced by stress, schools are an ideal environment in which students can be offered interventions to promote healthy brain development and foster stress resilience. Amy Saltzman, M.D., the director of the Association of Mindfulness in Education, offers some positive resources for schools and school personnel to counterbalance the above issues. She argues that “mindfulness is a powerful tool that supports children in calming themselves, focusing their

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<sup>3</sup> Jack Shonkoff and Andrew Garner, *The Lifelong Effects of Early Childhood Adversity and Toxic Stress*, American Academy of Pediatrics (2012).

<sup>4</sup> Daniel Goleman, "Focus : the hidden driver of excellence," (2013).

<sup>5</sup> John Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students," *Mindfulness* 3, no. 4 (2012), <https://doi.org/10.1007/s12671-012-0094-5>.

<sup>6</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

attention, and interacting effectively with others, all critical skills for functioning well in school and in life.”<sup>7</sup> In addition, she states that “incorporating mindfulness into education has been linked to improving academic and social and emotional learning. Also, mindfulness strengthens some underlying development processes—such as focus, resilience, and self-soothing—that will help kids in the long run.”<sup>8</sup> Therefore, training in mindful awareness should be used to counter the negative effects of our modern world on children.

## Unit Goals

Throughout this unit, students will:

- Participate in a problem-based learning project that focuses on helping an inattentive, struggling class.
- Learn key components that promote positive mental health and well-being, with the goal of improving attention.
- Learn about the field of neuroscience to better understand the function of the brain and nervous system.
- Learn about the concept of neuroplasticity and how their brain regulates emotions.
- Learn about mindful awareness, or the intentional non-judgmental awareness of the present moment.
- Practice mindful awareness (mindful breathing, mindful listening, and mindful seeing) to develop focused attention, emotional balance, and well-being.
- Create presentations demonstrating learned mindfulness strategies and exercises to the inattentive, struggling class.
- Complete a pre- and post-mindfulness self-assessment that will be used to gauge their application levels of mindful awareness.

## Content Research

### Introduction

The purpose of education is to prepare students to be college and career ready in an effort to create global citizens. To accomplish this goal and help students meet rigorous, academic benchmarks, there has been an increasing demand for a shift in educational policies and practices to emphasize the development of “21st century skills.” Consequently, continuing to add to the school curriculum is a concern for both teachers and students in that the number of students with mental health issues has increased over the years. In addition, these issues are compounded by other factors. In an effort to alleviate the stress from academic pressures, schools have started to implement social and emotional learning as well as mindfulness in daily lessons

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<sup>7</sup> "Best Practices for Bringing Mindfulness into Schools," Mindful: Educator Community, accessed September 10, 2020, <https://www.mindful.org/mindfulness-in-education/>.

<sup>8</sup> "Best Practices for Bringing Mindfulness into Schools."

A growing body of research has demonstrated the connection and importance of social and emotional skills to academic performance and success.<sup>9</sup> Understanding this connection is especially important in light of recent data on the number of students in the United States who experience mental health problems. Among the most commonly diagnosed mental disorders in children are ADHD, anxiety, behavior problems, and depression.<sup>10</sup> Specifically, analyzing children aged 3-17, 9.4 % have been diagnosed with ADHD, 7.4% have been diagnosed with behavior problems, 7.1 % have been diagnosed with anxiety, and 3.2% have been diagnosed with depression.<sup>11</sup> Moreover, some of these conditions commonly occur together. For example, about 75 % of children aged 3-17 who have been diagnosed with depression also have anxiety and almost 50% experience behavior problems.<sup>12</sup> Additionally, the rate of anxiety and depression diagnoses in children aged 6-17 has increased from 5.4% in 2003 to 8% in 2007 to 8.4% in 2011.<sup>13</sup>

Many factors such as gender, ethnicity, race, and socio-economic status are related to children's mental health. For children aged 2-8 years old, boys were more likely than girls to be diagnosed with a mental health disorder.<sup>14</sup> In addition, more than 20% of children living below the federal poverty line experience a mental or behavioral disorder.<sup>15</sup> Age, gender, and socio-economic status have been documented as affecting the likelihood of children receiving treatment for anxiety, depression, or behavior problems.<sup>16</sup> Given that social and emotional health, both wellness and illness, can influence academic performance and success, 21st century schools must be invested in incorporating social and emotional learning into a curriculum and an environment that historically has been focused on traditional academic subject areas.

## Mindfulness

Along with social and emotional learning to promote wellness, there has been an increasing interest and application of mindfulness-based practices in schools. Mindfulness has been defined as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment.”<sup>17</sup> Mindfulness is an essential part of human consciousness and a “mental capacity” that can be bolstered through

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<sup>9</sup> Jeffrey S. Kress and Maurice J. Elias, "Building Learning Communities through Social and Emotional Learning: Navigating the Rough Seas of Implementation," *Professional school counseling* 10, no. 1 (2006), <https://doi.org/10.1177/2156759X0601000105>.

<sup>10</sup> "Data and Statistics on Children's Mental Health," National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, 2020, <https://www.cdc.gov/childrensmentalhealth/data.html>.

<sup>11</sup> "Data and Statistics on Children's Mental Health."

<sup>12</sup> "Data and Statistics on Children's Mental Health."

<sup>13</sup> "Data and Statistics on Children's Mental Health."

<sup>14</sup> "Data and Statistics on Children's Mental Health."

<sup>15</sup> "Data and Statistics on Children's Mental Health."

<sup>16</sup> "Data and Statistics on Children's Mental Health."

<sup>17</sup> J. Kabat-Zinn, "Mindfulness-based interventions in context: Past, present, and future," *CLINICAL PSYCHOLOGY-SCIENCE AND PRACTICE* 10, no. 2 (2003), <https://doi.org/10.1093/clipsy/bpg016>.

various methods of training.<sup>18</sup> One method of training is mindfulness meditation. Although meditation originally was derived from eastern traditions and Buddhist practice, western teachers of mindfulness have recognized the benefits and modified the traditional discipline into a secular practice.<sup>19</sup>

Typically, when practicing mindfulness meditation, the practitioner initially directs his or her attention to a specific focus, like the breath, an emotion, a sensation, or another attentional “anchor.” While practicing, a practitioner may notice his or her mind repeatedly drifting away from the chosen “anchor.” During these drifts, the mind may be drawn to certain thoughts, feelings, images, or memories. Once he or she notices this drift away from the chosen “anchor,” the practitioner attempts to bring his or her attention back to the breath, emotion, sensation, or other identified “anchor.” Instead of focusing on eliminating these thoughts, emotions, or sensations, the practitioner attempts to develop a better awareness of each moment. Such an awareness is based on acceptance and curiosity rather than judgment or modification. By placing emphasis on acceptance and non-judgment, a practitioner is simply observing his or her experience which led to less reactivity during the body’s stress response.<sup>20</sup>

Mindfulness can be practiced in a formal or informal manner. Mindfulness is practiced formally in sitting meditations, by simple yoga movements, and in body scans, or gradual sweeping of attention through the body. These formal ways to practice lead to the intentional attending to thoughts, emotions, sensations, and experiences that arise in given moments. Mindfulness is practiced in informal ways through bringing awareness to daily activities, such as eating, walking, and interpersonal interactions.<sup>21</sup>

### Benefits of a Mindfulness Practice

Over the past 20 years, there has been an increased interest in mindfulness practices and its potential benefits. Although initially applied in the field of medicine, mindfulness practices and training has spread into the areas of healthcare, neuroscience, psychology, business, education, and the military.<sup>22</sup> In several reviews and meta-analysis, the “nature, application, and potential efficacy” of mindfulness-based interventions has been explored.<sup>23</sup> This increased level of exploration and research has demonstrated mindfulness-based interventions to be effective in a

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<sup>18</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>19</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>20</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>21</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>22</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>23</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

wide range of clinical problems and disorders.<sup>24</sup> Populations including both healthy individuals and clinical populations with disorders or diseases such as cancer, psoriasis, chronic pain, depression, anxiety disorders, and fibromyalgia have demonstrated measurable benefits from mindfulness practice.<sup>25</sup>

In addition, research has demonstrated that mindfulness interventions for adults can be successful at addressing a wide range of health, social and emotional problems for health individuals. A growing body of research has indicated that mindfulness improves the health and well-being of adults by reducing stress, anxiety and depression.<sup>26</sup> Mindfulness research also has demonstrated an enhancement of neuroendocrine and immune system function as well as a diminishing need for medication and a changing perception of pain.<sup>27</sup> An increase in motivation to make lifestyle changes and foster social connection to enrich interpersonal relations has been documented as an additional benefit of mindfulness-based interventions.<sup>28</sup> Finally, mindfulness techniques have shown to be helpful to participants as they feel a “greater sense of calm, happiness, well-being and engagement with others.”<sup>29</sup>

### Mindfulness for K-12 Students

Given the diverse usefulness and beneficial record of mindfulness-based interventions and practices for adults, researchers, clinicians, and schools have made great efforts to develop adaptations for children and youths. For students, like adults, mindful awareness occurs when one purposefully pays attention to the present moment with a receptive attitude of acceptance curiosity, and an absence of judgment. By practicing mindful awareness, students are able to reflect on their internal and external experiences with an objective and responsive lens rather than from a subjective and reactive lens.<sup>30</sup> Coupled with informal mindful awareness practices, regular formal mindfulness training can help support students adaptive emotional regulation, including their ability to acknowledge and express their emotions while regulating the intensity

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<sup>24</sup> Charlotte Zenner, Solveig Herrleben-Kurz, and Harald Walach, "Mindfulness-based interventions in schools-a systematic review and meta-analysis," *Frontiers in psychology* 5 (2014), <https://doi.org/10.3389/fpsyg.2014.00603>.

<sup>25</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>26</sup> Katherine Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context," *Journal of children's services* 8, no. 2 (2013), <https://doi.org/10.1108/jcs-12-2012-0014>.

<sup>27</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>28</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>29</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>30</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

and frequency of their emotions.<sup>31</sup> The emergence of adaptive emotional regulation is a fundamental goal of social-emotional learning.

Over the past 15-20 years, a plethora of mindfulness-based curricula for K-12 students have been created and implemented in schools around the world. Most mindfulness-based curricula for K-12 students use age-appropriate mind-body exercises with the goal of increasing focused attention, emotional self-regulation, and social competencies.<sup>32</sup> Unit lessons typically focus on bringing awareness to students' inner and outer experiences through a variety of physical, mental, and emotional activities.<sup>33</sup> Students may spend time working on bringing focused attention to their breathing patterns or sensory experiences. In other lessons, students may focus on bringing awareness to their thoughts and emotions through meditation, journaling, or discussion. In addition, teachers may incorporate lessons that include movement practices to help students make mind-body connections and improve their emotional self-regulation. Finally, some activities may focus on caring or kindness practices to aid in students' development of social competencies. The objective of most mindfulness-based curricula is that, as these skills are learned and practiced over time, mindful awareness becomes incorporated into the daily lives of students whether learning at school, interacting at home, or participating in the community.<sup>34</sup>

#### Review of Research on Teaching Mindfulness to K-12 Students

With the mounting academic pressures and growing body of research highlighting the effects of stress, as well as genetics and environment, upon child development, various mindfulness programs and interventions for schools have been developed, applied and analyzed within the past few years. In addition, current research on mindfulness instruction for children has been conducted in clinical settings with a focus on secular mindfulness-based programs and interventions that cultivate mindfulness as a core. Research conducted in both school and clinical settings were reviewed for this unit.

Within the school setting, a range of mindfulness projects and programs have been developed for mainstream contexts. Subsequently, these projects and programs have given rise to evaluations published in peer reviewed journals. "Inner Kids," created by Susan Kaiser Greenland, is an eight-week program loosely designed to follow the sequence "Play, Practice, Share, and Apply." Research on the program included 64 seven to nine-year old students with parent and teacher-rated improvements on executive function, or the ability to problem solve, pay attention, and monitor one's own actions.<sup>35</sup> The study found improvements in participants'

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<sup>31</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>32</sup> Zenner, Herrnleben-Kurz, and Walach, "Mindfulness-based interventions in schools-a systematic review and meta-analysis."

<sup>33</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>34</sup> Zenner, Herrnleben-Kurz, and Walach, "Mindfulness-based interventions in schools-a systematic review and meta-analysis."

<sup>35</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."



behavioral regulation, meta-cognition, and executive function.<sup>36</sup> In another study, researchers Schonert-Reichi and Hymei reviewed the “MindUp” program which focuses on teaching social, emotional, attention, and self-regulation strategies through the use of mindfulness exercises. Research demonstrated improvements in behavior, attention, and focus on nine to 13-year-old participants.<sup>37</sup> Finally, researchers Napoli et al. reviewed an intervention which integrated mindfulness and relaxation techniques with children aged five to eight who previously reported high levels of anxiety. Post intervention measures showed significant improvements in anxiety, attention, and social skills through self-rated tests and teacher-rated surveys.<sup>38</sup>

A few studies have focused on mindfulness-based interventions with students in clinical contexts rather than in school. One clinically-based study analyzed the effects of a mindfulness-based intervention on the ability to self-regulate in nine and ten-year-old students from disadvantaged backgrounds.<sup>39</sup> Students participated in activities such as yoga-based physical activity, breathing exercises, and guided mediation sessions. Post-intervention, researchers found reductions in measures of involuntary response to stress as well as increased trust in others.<sup>40</sup> In another clinically based study, Semple et al. analyzed the effects of a mindfulness-based cognitive therapy program on 25 nine to 12-year olds who were enrolled in a clinic-based remedial reading program. Compared to the control group, parent-rated surveys indicated significant reduction in participant attention problems.<sup>41</sup> In addition, parent-rated reports also indicated reductions in anxiety as well as behavioral and anger management problems.<sup>42</sup> Finally, clinical research conducted by Sibinga et al. focused on the impact of a mindfulness-based intervention on students with a range of medical and psychological issues. After an eight-week intervention program, students aged 13-21 years old showed a significant reduction in self-reported levels of emotional discomfort and hostility. In addition, participants reported perceived improvements in school achievement, health, and levels of stress.<sup>43</sup>

## Review of Research on Attention and Mindfulness

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<sup>36</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>37</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>38</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>39</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>40</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

<sup>41</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>42</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>43</sup> Weare, "Developing mindfulness with children and young people: a review of the evidence and policy context."

The inability of American students to pay attention to classroom instruction and schoolwork is common and may predict academic difficulties independent of other behavioral/emotional problems.<sup>44</sup> For example, researchers Merrell and Tymms found that inattentive behavior, as measured by teacher-rated surveys, predicted lower academic achievement over a two-year period even after controlling for children's reading and math skills at school entry.<sup>45</sup> In addition, researchers Rabiner, Murray, Schmid, and Malone concluded that first graders identified as having elevated levels of inattentive symptoms per teacher ratings of DSM-IV were up to seven times more likely to be below grade level in reading, math, and written language as compared to their peers.<sup>46</sup> Similarly, Massetti et al. found significant deficits over an eight year period in academic achievement in four to six year old students identified as having the inattentive subtype of Attention-Deficit/Hyperactivity Disorder (ADHD).<sup>47</sup>

Due to the implications of an inability to pay attention on academic achievement, as well as behavioral and social difficulties, a growing body of research has been conducted to examine the effects of mindfulness-based interventions on the behavior and cognitive processes of attention regulation in children. For example, researchers Rani and Rao found that compared to an age- and gender-matched, non-meditating comparison group, students ages 9 to 11 who meditated regularly demonstrated greater attention regulation capacity.<sup>48</sup> In another clinically-based study, researchers found significant reductions in attention-related problems for students after completing a 12 week mindfulness training program.<sup>49</sup> Similarly, Zylowska et al. demonstrated a reduction in ADHD symptoms as well as improvements on tasks of attention and cognitive inhibition on students identified as having ADHD who practiced meditation for eight weeks.<sup>50</sup> Furthermore, through repeated and intentional focusing, sustaining, and shifting of attention, research evidence points to regular practice of mindfulness exercises as strengthening students' ability to self-regulate attention.<sup>51</sup>

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<sup>44</sup> Jessica A. Carboni, Andrew T. Roach, and Laura D. Fredrick, "Impact of Mindfulness Training on the Behavior of Elementary Students With Attention-Deficit/Hyperactive Disorder," *Research in human development* 10, no. 3 (2013), <https://doi.org/10.1080/15427609.2013.818487>.

<sup>45</sup> C. Merrell and P. B. Tymms, "Inattention, hyperactivity and impulsiveness: Their impact on academic achievement and progress," *British journal of educational psychology* 71, no. 1 (2001), <https://doi.org/10.1348/000709901158389>.

<sup>46</sup> David L. Rabiner and Patrick S. Malone, "The Impact of Tutoring on Early Reading Achievement for Children With and Without Attention Problems," *Journal of Abnormal Child Psychology* 32, no. 3 (2004), <https://doi.org/10.1023/B:JACP.0000026141.20174.17>.

<sup>47</sup> Greta M. Massetti et al., "Academic Achievement Over 8 Years Among Children Who Met Modified Criteria for Attention-deficit/Hyperactivity Disorder at 4–6 Years of Age," *Journal of Abnormal Child Psychology* 36, no. 3 (2008), <https://doi.org/10.1007/s10802-007-9186-4>.

<sup>48</sup> Randy J. Semple, "Does Mindfulness Meditation Enhance Attention? A Randomized Controlled Trial," *Mindfulness* 1, no. 2 (2010), <https://doi.org/10.1007/s12671-010-0017-2>.

<sup>49</sup> Semple, "Does Mindfulness Meditation Enhance Attention? A Randomized Controlled Trial."

<sup>50</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

<sup>51</sup> Meiklejohn et al., "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students."

Based on the presented research and information on school demographics, specifically pertaining to student disciplinary reports, a unit on mindfulness is warranted. Below are general teaching strategies, lesson plans, assessments, and unit resources that should be used when implementing this unit. In addition, resources for teachers are included to encourage personal growth of mindfulness practice.

## **Instructional Implementation**

### Teaching Strategies

#### *Problem Based Learning*

To encourage engagement and interest, this curriculum unit is designed following the Problem-Based Learning approach (PBL), a student-centered approach to learning about a subject or subjects that requires students to solve an open-ended problem. This problem is the motivating forces for the learning during the unit. Specifically, in this unit, students are presented with the problem of a teacher's inattentive and struggling class and are tasked to derive possible solutions after learning about mindful awareness.

#### *Guided Practice*

Through guided practice, I will teach the mindful practices of breathing, seeing, and listening. For mindful breathing, students will be guided through four types of breathing exercises that they can use to calm and focus their minds. For mindful seeing, students will be guided through a mindful seeing activity that will require them to focus their attention on a leaf. For mindful listening, students will be guided through a mindful listening exercise that requires them to listen attentively to the sound of a bell.

#### *Models/Photographs*

Throughout the unit, students are presented with information about the brain, its specific parts, and each part's function. Models of the brain as well as diagrams, drawings, and photographs will help students better understand the information as well as make connections between their learning and their own experiences. Understanding how their brain functions is key to helping students understand how their feelings arise and how they have the ability to change what they do in response.

#### *Anchor Charts*

Throughout the unit, I will create anchor charts to display in the classroom. Anchor charts are essential to student learning. They highlight the most important aspects of a lesson, unit of study, or subject. In addition, anchor charts help teachers focus on, and allow students to remember, the most important concepts and skills being taught.

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### *Discussion Groups*

During each lesson, students will have opportunities to participate in group discussions. Discussions will be centered around specific teacher-prompted questions that correspond to the daily lesson objectives. These group discussions give students the opportunity to share their feelings, experiences, and opinions as well as learn from each other's experiences.

### *Journal Writing*

After each lesson, students will be encouraged to reflect on what they have learned about how their brain thinks, being mindful, and practicing mindful exercises. In addition, students may record questions they wish to explore throughout the unit. Finally, students should record their experiences with each mindfulness activity to aid in their final presentation.

### *Literature Extensions*

If time and/or schedule permits, several texts will be provided to extend the lesson and create connections to literacy.

- Simon, Seymour (2010). *The Brain*. New York: Scholastic
- Muth, Jon (2020). *The Three Questions*. New York: Scholastic
- Katz, Bobbi. (2001). *Rumpus of Rhymes: A Noisy Book of Poems*. New York: Dutton Children's Books.
- Weiss, Ellen (2009). *The Sense of Sight*. New York: Scholastic
- Hyde, Margaret (2008). *Mo Smells Red: A Scentsational Journey*. Winnetka, CA: Mo's Nose LLC.

### *Rubric*

A rubric will be used to gauge student understanding of the unit's learning objectives as well as provide students with clear expectations for their final presentations. The rubric also will give students the opportunity to self-assess throughout the unit and to reflect on their learning progress.

### *Self- Assessment*

Before and after the unit, students will take a self- assessment. Student's will assess their own understanding and application of mindful awareness. This self-assessment will assist in making students more aware of and more responsible for their own learning process. In addition, the self-assessment pre- and post-data can be used by the teacher to gauge student learning.

### Lessons/ Activities

#### *Project Introduction (One day)*

- Objective:

- In today’s lesson, students will be introduced to the curriculum unit and culminating project. In doing so, students will be informed of a “problem” that they will be asked to solve after participating in six lessons on mindfulness. Students will be given a rubric to aid in their understanding of the project as well as inform them of the required expectations. In addition, students briefly will discuss possible solutions and record their thoughts in a journal that will be used throughout the curriculum unit. Finally, students will be given the opportunity to reflect on their own experiences with mindfulness, attention, and emotions while completing a self-assessment.
- Warm- up
  - Present the overarching problem to students.
    - “Scholars, we need your help! There is a class at our school that is full of students who are very bright, kind, and hard-working. However, their teacher, (fill in the name of the teacher whose class will be listening to the final presentations), is having a difficult time keeping students engaged and attentive to their lessons and work. Because of this, students are beginning to struggle to complete their work, their grades are decreasing rapidly, and they are becoming increasingly more stressed. Both this teacher and (his/her) class need your help! Are you up to the task?”
- Teach point
  - Introduce the unit as well as culminating project and rubric.
    - Explain to students that they are going to participate in five lessons that will help them find solutions to this problem. Explain that after learning about mindfulness and strategies to improve mindful awareness, students will collaborate in groups to create presentations of possible solutions to help the “troubled” class.
    - Briefly review the rubric (Appendix 2) that will be used to evaluate their presentations. Continue to review the rubric throughout the unit to ensure student understanding of expectations.
- Active Engagement
  - Allow students some time to process their task as well as record their initial thoughts of solutions in their mindfulness journal. If time allows, students can share their initial ideas with their peers. Students also are encouraged to pose leading questions that can/should be answered throughout the unit.
- Reflection
  - To gauge prior knowledge, understanding and current application levels of mindful awareness, students will complete a self-assessment (Appendix 3). This data should be used to inform instruction throughout the curriculum unit.

*Brain Power: Parts and Functions of our Brain (One Day)*

- Objective:
  - In today’s lesson, students will learn about the amygdala, the hippocampus, and the prefrontal cortex as well as each parts’ functions. By learning about these parts of the limbic system, students will better understand how our brains respond to stress as well as how we learn and why we behave the way we do.

- Warm- up:
  - Before class, make a model to show how the brain processes information under stress. To create this model, fill a clear plastic bottle with water as well as some sand, glitter, and pieces of confetti. (Other small, classroom materials may be used).
  - In front of the students, shake the bottle and mix up the particles. Explain to students that this represents their brains when stressed. A part of the brain called the amygdala scatters information when it is alert. Ask students to think of a time when they were stressed and could not focus or stay calm.
  - Then, set the bottle down and allow the particles to start to settle. Explain to students that this represents their minds calming down. When our brain starts to calm down, pieces of information begin to “flow in a clear direction” and we are able to make more thoughtful decisions. Again, ask students to reflect on a time when they felt anxious or worried. Ask, “What helped you calm down and think more clearly?”
- Teach point:
  - Display the anchor of the brain (Appendix 4).
  - Tell students, “In today’s lesson, we are going to be learning about ‘Team Brain.’ The parts of the brain operate like a team--each part has its own job.” Point to each part of the brain and say,
    - “The prefrontal cortex is ‘our leader’ right in the front of our brain and is responsible for thinking. The prefrontal cortex helps us to make decisions, focus attention, read, write, predict, analyze and imagine.
    - The hippocampus is our memory saver or our filing cabinet that stores all of our experiences and everything we learn. The hippocampus helps you remember things that are important.
    - And finally, the amygdala is our ‘security guard’ that warns our body of danger and stress to protect us. The amygdala is responsible for reacting to the threat of danger. It communicates or blocks communication from the prefrontal cortex.”
    - “When we are in a calm and safe state, our amygdala can communicate with the ‘leader’ part of our brain to make good decisions. When we are in a negative emotional state where we feel stressed, anxious, or fearful, the amygdala fires to warn us (our fight, flight, freeze response) and cannot communicate with our ‘leader’ part of our brain for clear decision making.”
  - Provide students with an example of how the three parts of the brain work together when under stress.
    - “For example, when the fire alarm goes off at school, your hippocampus recognizes the fire alarm as a sign of emergency and sends a message to alert the amygdala. Your amygdala is activated and makes you alert and tense. It signals possible danger to the prefrontal cortex. Your prefrontal cortex allows you to look at the situation, recognize that it is a drill, remain calm, and follow the proper procedure.”
    - “Sometimes the amygdala signals danger when there isn’t a real threat. For example, you are about to do a presentation in front of the class. Your

hippocampus remembers that this is a situation that makes you nervous and sends a message to alert the amygdala of possible danger. Your amygdala activates a reflexive response to a threat and shuts down communication with the prefrontal cortex. You become unable to think clearly and you panic. Your prefrontal cortex can't help you because your emotions have taken your brain hostage.”

- Active Engagement
  - In small groups, have students discuss this situation:
    - “Imagine you are walking to school and you see ahead of you, blocking the sidewalk, a large group of bigger kids you don’t know.
      - How does your body immediately react? (amygdala)
      - What memories/experience/knowledge can you draw on? (hippocampus)
      - What is your plan? (prefrontal cortex)”
- Reflection:
  - In their journals, students should reflect on what they have learned about how their brains think, learn, and respond to stress.
  - Possible journal prompt:
    - Draw a picture of yourself when your amygdala was activated. Below your picture, describe the situation in words. Explain whether your amygdala reacted to real danger or alerted you to a situation that was not an actual threat.
- Closure
  - Tell students, “We can train our brains to *respond reflectively rather than reactively*. By developing this awareness of what is going on in our brains, we can learn ways to calm our amygdalae so that we can reason and think clearly to make better decisions. Throughout this unit, we will learn strategies to:
    - Help calm your amygdala when there is no danger
    - Strengthen your ability to focus by getting information to your prefrontal cortex efficiently
    - Store important ideas in your hippocampus”

### *Mindful Awareness (One day)*

- Objective:
  - In today’s lesson, students will learn about the differences between mindfulness and unmindfulness. Students also will begin to explore focusing their attention to their present situation without judgement.
- Warm-up:
  - If possible, take students outside for today’s warm-up. If not possible, students can participate with the warm-up in a classroom or hallway. Whether inside or out, students should have their mindfulness journal and a pencil.
  - Encourage students to sit in a comfortable position with their eyes closed. Prompt students to listen carefully for all the sounds they hear around them. After one minute of listening, ask students to open their eyes and jot down everything they

- heard in their mindfulness journal. In pairs or small groups, students should discuss their list. As a class, record the most common sounds heard.
- If time allows, perform the listening exercise again. Challenge the students to listen for any new sounds. Add these new sounds to the class list.
  - Teach point:
    - Reflect on the warm-up as well as make connections with previous learned information about parts of the brain.
      - “When we were really focused on listening, we were able to hear so many different sounds. We can use information learned from yesterday’s lesson to explain why--we were able to keep our amygdala’s calm and this allowed a lot of sound information to pass through our prefrontal cortex. Then, the sound information was stored in our hippocampus, or filing cabinet.”
    - Explain mindful awareness.
      - “When we focus our attention on the present moment, we are being mindful or having mindful awareness. Being mindful is also about paying attention to all the details and gathering facts before we form opinions. We do this so we don’t make unmindful judgements about situations or others. When we are tuned in to what is happening around us, we can be reflective in our thoughts and actions rather than letting our emotions rule our reactions.”
  - Active Engagement:
    - Give examples to help students differentiate between being mindful and unmindful.
      - “Let’s think about sometimes when we have been mindful and unmindful. I can be mindful by listening attentively when someone is speaking and not reacting until the person has finished. I can be unmindful by intentionally ignoring someone who seems eager to join in a conversation.”
    - Independently or in pairs, students should work on the “Mindfulness is, feels like, and looks like” graphic organizer. (Appendix 5) Students can write or draw in each section to demonstrate their understanding of mindfulness. After they have been given time to complete their graphic organizers, students can share their thoughts and graphic organizers with the class.
  - Reflection:
    - In their journals, students should reflect on what they have learned about mindfulness, attention, focus, and reactions.
    - Possible journal prompt:
      - Think of a time when you were mindful and a time when your mind was full. On a piece of paper, draw a box and divide it in half. On one side, draw or write about the time when you were mindful. On the other side, draw or write about the time when your mind was full.
  - Closure:
    - “Mindful awareness is the ability to attend to, or focus on, the here and now, whether it be other people, the environment, a concern or challenge. We can practice being mindful by paying close attention to our present situation and our



role in it. This will prepare us to make better decisions rather than be ruled by our emotions.”

### *Mindful Breathing (One Day)*

- Objective:
  - In today’s lesson, students will continue to learn about mindful awareness. Students will learn breathing exercises that they can use to calm and focus their minds. In addition, they will learn the importance of practicing mindfulness on a daily basis.
- Warm-Up:
  - Tell students, “Today we are going to be focusing on our breathing to help us be mindfully aware as well as calm our bodies. When we focus on our breathing, our heart rate slows down, our blood pressure lowers, and our focus increases. This will help us become less reactive when we feel anxious or stressed. We need to practice controlling our breathing so that it becomes a habit.”
  - Prompt students to share things that have become habits in their own lives.
    - Ask questions such as, “When did you first start doing this thing?” “How did it become a habit?” and “Is it a healthy habit?”
- Teach Point
  - Tell students, “Today, we are going to be learning about four types of mindful breathing. You will have a chance to try each type of breathing in a few minutes.”
  - Discuss the four types of mindful breathing:
    - **Flower Breath:** Imagine smelling a beautiful flower, breathe in through the nose and out the mouth, releasing any tension. Stop and smell the roses, daffodils, daisies or any other flower they like.
    - **Hissing Breath:** Breathe in the nose, long deep inhale, and out the mouth on a hissing sound, slow and long. Make sure to extend the exhale to help you slow down mentally and physically.
    - **Bear Breath:** Imagine a bear hibernating. Inhale through the nose, pause; exhale out the nose, pause. Breathe in for a count of 3 or 4, pause for a count of 1 or 2; breath out for a count of 3 or 4, pause for a count of 1 or 2.
    - **Bunny Breath:** Pretend you are a bunny, sniffing the air for other bunnies, carrots to eat, or safety. Just 3 quick sniffs in the nose and one long exhale out the nose.
- Active Engagement:
  - After explaining the four types of mindful breathing, students are encouraged to try the exercises. Have students sit in a comfortable position and with their eyes closed. Using the prompts above, guide students through a few rounds of each of the mindful breathing exercises.
  - After trying all four, give students the choice and time to try an exercise on their own.
- Reflection
  - In their journals, students should reflect on what they have learned about mindful breathing.

- Possible journal prompt:
  - When might be the most helpful time for you to practice mindful breathing in school? Why?
- Closure
  - Say, “Remember, we can use conscious, mindful breathing to help us manage our feelings, the same way we manage other healthy habits such as tooth brushing, saying ‘please’ and ‘thank you,’ lining up for recess, and cleaning up after ourselves. When we are able to manage our emotions, we can focus our attention more easily. We will continue to practice these breathing exercises in class and you are encouraged to practice them at home as well!”

### *Mindful Seeing (One Day)*

- Objective:
  - In today’s lesson, students will participate in a mindful seeing activity that will require them to focus their attention on an object. Continual practice of mindful seeing exercises will help students strengthen their memory.
- Warm-Up:
  - To start the lesson, students play the game “21 questions” with a partner or in small groups.
  - To play the game,
    - One person is designated as the person to choose an object from around the room. Next, the other student(s) is allowed to ask up to 21 “yes or no” questions to help them determine the selected object. Encourage students to ask questions that include descriptive language.
      - Example questions include, “Is the object round?” “Is the object opaque?” “Is the object heavy?”
    - After each student has been given the chance to answer questions, bring the group back together for a discussion. Ask students about their questions; specially, which questions were most beneficial to determining the given object.
- Teach-Point:
  - Tell students, “Yesterday, we practiced four types of breathing to help us regulate our emotions as well as focus our attention. Today, we are going to participate in a mindful seeing exercise. Similarly to mindful breathing, mindful seeing helps us to sharpen our focus by using one of our senses (sight) to purposefully look at an object.”
  - “Today, you are going to act as a ‘mindful detective.’ You are going to look closely at an object and notice all of the details of that object. You also are going to use descriptive words to tell your partner about your object.”
- Active Engagement:
  - Before class, gather a collection of leaves. Distribute one leaf and a magnifying glass (if possible) to each student.
  - Participate in a guided mindful seeing exercise.
    - Encourage students to look mindfully at their leaves. Prompt students to turn their leaves so that they can observe the leaf from every direction.

- Tell students to draw the leaf, including as many details as they can.
  - After students have drawn their leaves, have students take turns describing their leaf clearly from memory to a partner or small group.
  - Then students should show their leaf to their partner or whole group. Students should find the details each partner mentioned as well as add any new details to their drawings. Students can add any new details to their drawings that they had not observed the first time.
- Reflection:
  - In their journals, students should reflect on what they have learned about mindful seeing.
  - Possible journal prompt:
    - How can mindful seeing help us at school? At home? In a stressful situation?
- Closure:
  - “Mindful seeing helps us better observe our ourselves (i.e. our emotions), other people, and our surroundings. As we continue to practice mindful seeing, we will become better able to observe details by slowing down and focusing our attention. In fact, we can use these observational skills to help us focus on our academic work.”

### *Mindful Listening (One Day)*

- Objective:
  - In today’s lesson, students will participate in a mindful listening exercise that will have them train their attention to focus on specific sounds.
- Warm-Up:
  - To begin today’s lesson, students will play “Telephone,” a whispering game. Students will be divided into small groups and then sit in circles with their groups. A short phrase will be passed from one student to the next. The phrase is to be whispered only once to each student. The last person must say aloud the phrase she or he hears. Students will compare the original version of the phrase to the final version.
  - Bring students back together and hold a short class discussion. Possible discussion questions include:
    - Did the final version of the phrase match the original version?
    - If not, why do you think that happened?
  - Tell students, “Every brain hears things differently. In order for us to effectively communicate with one another, we sometimes have to repeat ourselves or find other ways of expressing the same idea. We must be patient with one another as well as focus our attention on their words.”
- Teach-Point:
  - Tell students, “Sounds are all around us--the hum of the air conditioner, the clicking of a peer’s pencil against the desk, a bird chirping outside. Mindful listening helps us choose which sounds to focus our attention. In addition, mindful listening helps us be thoughtful in the way we hear and respond to others.”

- “When we practice mindful listening, we are able to become more focused and responsive to the present moment. In addition, mindful listening helps us better manage our emotions and communicate with others. Finally, mindful listening can help us in school by preparing us to follow directions, build friendships, and listen critically to lessons.”
- Active Engagement:
  - For the mindful listening exercise, you can use a traditional mindfulness bell (a singing bowl), a chime, or an electronic application that has bell sounds.
  - Say “In just a moment, we are going to close our eyes and listen to the sound of the bell. So let’s sit comfortably and let our bodies be really still. When you hear the bell, try to focus on the sound, and see if you can listen to it until the sound fades away completely. When you can’t hear it any more (and we’ll have to be really quiet and still to hear it that long!), open your eyes.”
  - Ring the bell.
  - After a few times of listening to the bell, you can have a short discussion about mindful listening:
    - Was it easy or hard to be quiet and listen to one sound?
    - Did you find that you got distracted while listening to the bell?
    - What other sounds could you hear besides the bell?
    - How did it feel for your body to be still and listen to sounds?
- Reflection:
  - In their journals, students should reflect on what they have learned about mindful listening.
  - Possible journal prompt:
    - Make a list of times that it is important for you to mindfully listen. Draw an illustration comparing what would happen if you did mindfully listen versus if you did not mindfully listen.
- Closure:
  - “Mindful listening strengthens our ability to pay attention, and it brings us completely into the present moment, for we can only listen NOW.”

## Assessment

### *Presentation Creation and Delivery (4 days)*

- Presentation Creation (3 days)
  - Remind students of the overarching problem of the unit.
    - There is a class at our school full of students who are very bright, kind, and hard-working. However, their teacher, (fill in the name of the teacher whose class will be listening to the final presentations), is having a difficult time keeping students engaged and attentive to their lessons and work. Because of this, students are beginning to struggle to complete their work, their grades are decreasing rapidly, and they are becoming

increasingly more stressed. Both this teacher and (his/her) class need your help!

- We have now participated in five lessons that have helped us develop solutions to this problem. We have learned about how our brain works, mindfulness and strategies to improve mindful awareness. Now is your chance to use what you have learned to help Mr./Ms. \_\_\_\_\_ class! You will collaborate in groups to create presentations of possible solutions to help the “troubled” class. Possible solutions should include aspects of either mindful breathing, mindful seeing, or mindful hearing.
- Review the rubric (Appendix 2) that will be used to evaluate their presentations to ensure student understanding of expectations.
- Students will have three days to brainstorm, organize, create, and practice their presentations in small groups. Students are encouraged to use a variety of presentation methods (i.e. PowerPoint, poster, acting out a play, video, etc.).
- Presentation Delivery (1 day)
  - Students will present their presentations to the “troubled” class.
  - The rubric (Appendix 2) will be used to evaluate the presentations based on how well the groups collaborated and communicated as well as the quality of the content.
  - After they present, students should be given the mindfulness self-assessment again to gauge their current understanding and current application levels of mindful awareness (Appendix 3). This data should be compared to data collected at the beginning of the unit.

## Appendix 1: Implementing Teaching Standards

### North Carolina Health Education Essential Standards

- 3.MEH.1: Understand positive stress management strategies.
  - 3.MEH.1.1 Explain how self-control is a valuable tool in avoiding health risks.
  - 3.MEH.1.2 Classify stress as preventable or manageable.
- 3.MEH.2: Understand the relationship between healthy expression of emotions, mental health, and healthy behavior.
- 4.MEH.1: Apply positive stress management strategies
  - 4.MEH.1.1 Summarize effective coping strategies to manage stress.
  - 4.MEH.1.2 Implement healthy strategies for handling stress, including asking for assistance.
- 4.MEH.2: Understand the relationship between healthy expression of emotions, mental health, and healthy behavior.
  - 4.MEH.2.1 Identify unique personal characteristics that contribute to positive mental health.
  - 4.MEH.2.2 Explain how effective problem-solving aids in making healthy choices.
- 5.MEH.1: Apply positive stress management strategies
  - 5.MEH.1.1 Implement positive stress management strategies.
  - 5.MEH.1.2 Evaluate the effectiveness of stress management strategies.

### Application of Standards in Curriculum Unit

During this curriculum unit, students learned about the field of neuroscience to better understand the function of the brain and nervous system; specially, in moments of stress. In addition, they learned about the concept of neuroplasticity, and how their brain regulates emotions. Students also learned positive stress management strategies during the lessons on mindful awareness. They learned and practiced mindful awareness through mindful breathing, mindful seeing, and mindful listening exercises. These exercises helped students develop focused attention, emotional balance, and well-being.

## Additional Appendices

### Appendix 2: Curriculum Unit Rubric

	<b>1. Standard Not Met</b>	<b>2. Approaching Standard</b>	<b>3. Standard Met</b>	<b>4. Exceeding Standard</b>
<b>Collaboration</b>	Only worked well with certain teams. Sometimes didn't support others or make compromises. Team didn't share responsibility.	Worked effectively and respectfully with most others. Listened individual contributions and sometimes made compromises. Shared some responsibility.	Worked effectively, flexibly, and respectfully with others. Valued individual contributions and made compromises. Shared responsibility.	Helped the whole team to work effectively, flexibly, and respectfully with each other. Valued and encouraged individual contributions. Made compromises. Shared and helped monitor responsibility.
<b>Communication</b>	Struggled to communicate effectively. Struggled to listen to presenters and understand key points of presentations.	Communicated effectively in most situations, including using technology, for various purposes, and in diverse environments. Mostly listened effectively, understanding key points of presentations.	Communicated effectively, including using technology, for various purposes, and in diverse environments. Listened intently to speakers.	Communicated very effectively in all settings, including using technology, for various purposes, and in diverse environments. Listened intently to speakers and asked relevant and meaningful questions or provided helpful feedback
<b>Content/ Organization</b>	Did not have grasp of information and could not answer questions about subject	Was uncomfortable with information and is able to answer only	Was at ease with expected answers to all questions, without elaboration	Demonstrated full knowledge by answering all class questions with explanations and elaboration

	Did not clearly define subject and purpose; provided weak or no support of subject; gave insufficient support for ideas or conclusions	rudimentary questions Attempted to define purpose and subject; provides weak examples, facts, and/ or statistics, which do not adequately support the subject; included very thin data or evidence	Had somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; included some data or evidence that supports conclusions	Provided clear purpose and subject; pertinent examples, facts, and/or statistics; supported conclusions/ideas with evidence
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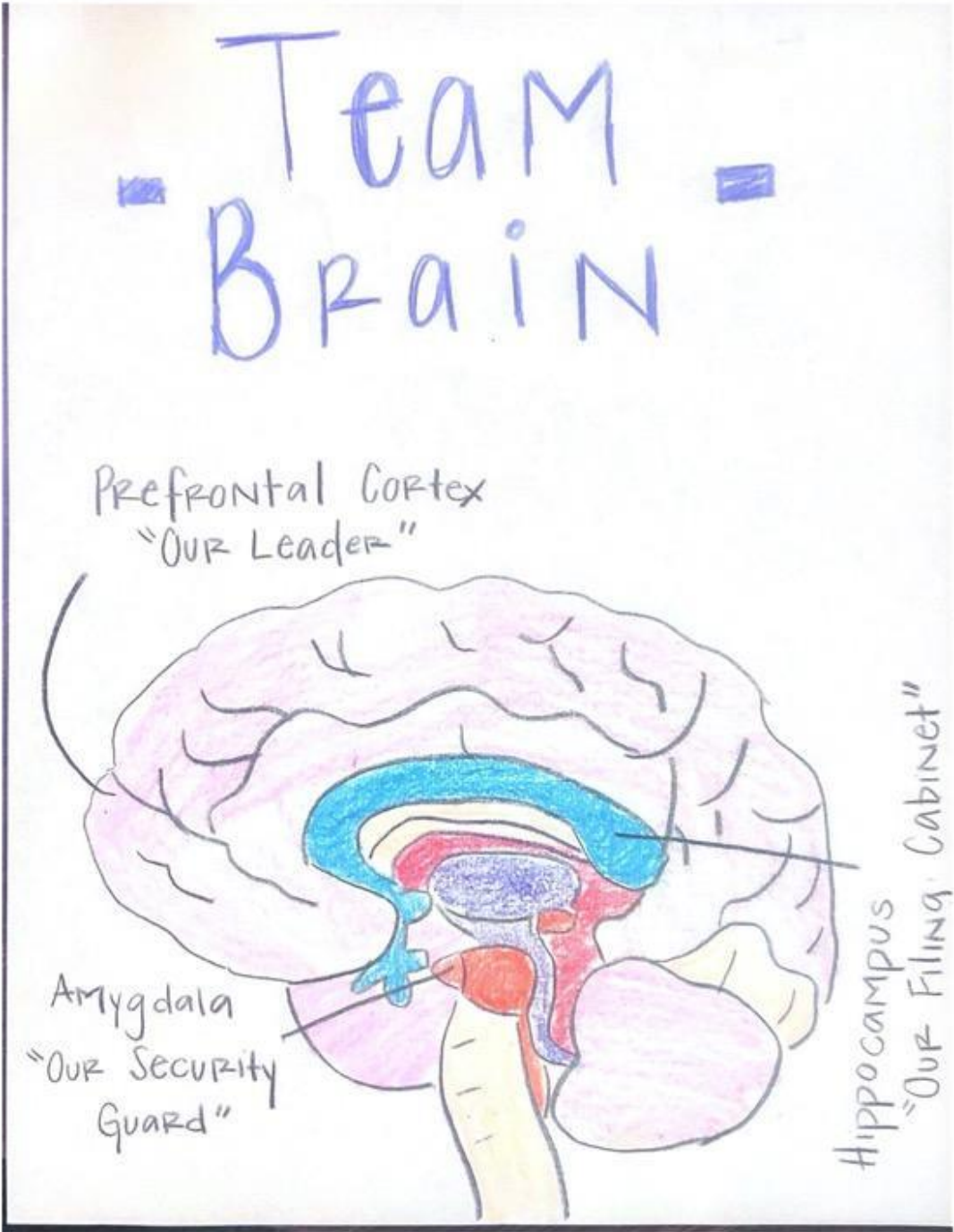
## Appendix 3: Self-Assessment

### “Pay Attention” Pre and Post Self-Assessment

Name \_\_\_\_\_

1. I know what mindfulness is:
  - a. Yes
  - b. Unsure
2. I make thoughtful decisions
  - a. Never
  - b. Infrequently
  - c. Sometimes
  - d. Most of the time
  - e. All of the time
3. I think before I speak.
  - a. Never
  - b. Infrequently
  - c. Sometimes
  - d. Most of the time
  - e. All of the time
4. I feel in control of my thoughts.
  - a. Never
  - b. Infrequently
  - c. Sometimes
  - d. Most of the time
  - e. All of the time
5. I feel in control of my body.
  - a. Never
  - b. Infrequently
  - c. Sometimes
  - d. Most of the time
  - e. All of the time
6. I feel in control of my attention.
  - a. Never
  - b. Infrequently
  - c. Sometimes
  - d. Most of the time
  - e. All of the time
7. At school, I mostly feel
  - a. angry
  - b. frustrated
  - c. excited
  - d. calm
  - e. sick
8. At home, I mostly feel
  - a. angry
  - b. frustrated
  - c. excited
  - d. calm
  - e. sick
9. When I am upset, I usually (circle all that apply)
  - a. Deep breathing
  - b. Yell and scream
  - c. Fight and be aggressive
  - d. Run away or hide
  - e. Get quiet or don't talk
  - f. Ask an adult for help
  - g. Take a break
  - h. Use positive self-talk
  - i. Problem solve
  - j. Other: \_\_\_\_\_



Appendix 4: Anchor Chart of the Brain



Appendix 5: "Mindfulness is, feels like, looks like" graphic organizer

# Mindfulness...

Is:	Looks Like:	Feels Like:



## Materials List

### Mindfulness Journals (one for each student)

- Students will use a mindfulness journal to reflect on their learning and respond to prompts at the end of each lesson.

### Anchor Chart Paper

- An anchor chart should be created to show students the three parts of the brain discussed during the second lesson—Brain Power: Parts and Functions of our Brain. An example anchor chart can be found in Appendix 4.

### Plastic bottle and small particles

- Before the second lesson (Brain Power: Parts and Functions of our Brain), a plastic bottle, water, sand, glitter, and pieces of confetti should be obtained. Fill the clear plastic bottle with water as well as the particles. This will be used to model how the brain processes information under stress.

### Copies of graphic organizers

- During the lesson on mindful Awareness, students will complete the “Mindfulness is, feels like, and looks like” graphic organizer to demonstrate their understanding of mindfulness. The graphic organizer can be found in Appendix 5.

### Copies of rubric

- Students will be given a copy of the project’s rubric at the beginning and end of the unit. The rubric will provide students with clear expectations for their final presentations as well as given students the opportunity to self-assess throughout the unit. The rubric can be found in Appendix 2.

### Copies of Self-Assessment

- Students will complete a self-assessment before and after the unit. The self-assessment will assess students’ understanding and application of mindful awareness. The self-assessment can be found in Appendix 3.

### Leaves

- Students will use leaves to participate in a guided mindful seeing exercise during the lesson on mindful seeing.

### Bell

- The teacher will ring a bell during the guided practice, or active engagement, section of the lesson on mindful listening.



## Student Resources

### Literature Extensions

Simon, Seymour (2010). *The Brain*. New York: Scholastic

- Author Seymour Simon does a phenomenal job with giving children an excellent foundation with the inner workings of the body systems. This book does a magnificent job explaining the intricate functions of the brain and juxtaposing it with amazing visuals.

Muth, Jon (2020). *The Three Questions*. New York: Scholastic

- Young Nikolai is searching for the answers to his three questions: “When is the best time to do things?”, “Who is the most important one?”, and “What is the right thing to do?” He finds the answers to his questions when responding to a stranger’s cry for help. This profound and inspiring book is about compassion and being engaged in each moment.

Katz, Bobbi. (2001). *Rumpus of Rhymes: A Noisy Book of Poems*. New York: Dutton Children’s Books.

- This collection of poems provides students with a variety of read-aloud poetry that celebrates a diverse array of boisterous sounds, including ocean waves and honking horns. This book would be a great accompaniment to the mindful listening exercises used in this unit.

Weiss, Ellen (2009). *The Sense of Sight*. New York: Scholastic

- This nonfiction text introduces young investigative readers to the human body and what makes it work. Specifically, this book focuses on the sense of sight.

Hyde, Margaret (2008). *Mo Smells Red: A Scentsational Journey*. Winnetka, CA: Mo’s Nose LLC.

- Inspired by a real-life rescued dog, the Mo’s Nose picture book tells about the titular dog who interprets his monochromatic vision through his heightened sense of smell. Students discover their own senses through color-themed scents as Mo experiences a world of color through his own nose. This is a great book to incorporate when discussing mindful awareness and mindful breathing.

### Websites

“Cosmic Kids Yoga " Making Yoga and Mindfulness Fun for Kids.” Cosmic Kids. Accessed October 15, 2020. <https://www.cosmickids.com/>.

- Students participate in teacher led yoga sessions with online videos. These yoga sessions are fun, engaging, and educational as well as an easy way to incorporate daily mindfulness practices.

“GoNoodle: Mediation.” GoNoodle. Accessed October 15, 2020. <https://www.gonoodle.com/>.

- GoNoodle is a student friendly website that has a library of free educational videos. In addition, GoNoodle has several videos and activities that focus on mindfulness; specifically, mindful awareness, mindful breathing, and mindful movement.



## Teacher Resources

Nhat Hanh, T., & Weare, K. (2017). *Happy teachers change the world*. Parallax Press.

- *Happy Teachers Change the World* teaches teachers an approach to mindfulness in education created by Thich Nhat Hanh and the Plum Village. The book devotes much of its pages to helping educators establish their own mindfulness practice before introducing it to students. This book gives educators easy-to-follow strategies and techniques for educators to teach to themselves and later apply to their work with students.

Hawkins, K. (2017). *Mindful teacher, Mindful school: Improving wellbeing in teaching and learning*. Washington, D.C.: Sage.

- Former educator Kevin Hawkins combines theory with practice while illustrating with real life stories in his book *Mindful teacher, Mindful School*. Hawkins' guide to mindful practice enables teachers to learn about mindfulness in their own profession and personal lives as well as how to incorporate it in their teaching to support students. This book is filled with exercises, classroom activities, and links to resources for further reading.

Jennings, P. A. (Ed.). (2019). *The mindful school: Transforming school culture through mindfulness and compassion*. New York: Guilford Press.

- In this book, author Jennings provides readers with a plethora of research, strategies, case studies, and practical insights to help schools implement mindfulness-based programming.

Langer, E. J. (2016). *The power of mindful learning*. Philadelphia: Da Capo Lifelong Books.

- In her book *The Power of Mindful Learning*, Author Ellen Langer introduces her theory of mindfulness to enhance the way we learn. According to Langer, mindful learning can occur when awareness of context and of the ever-changing nature of information takes place.





## Bibliography

- Carboni, Jessica A., Andrew T. Roach, and Laura D. Fredrick. "Impact of Mindfulness Training on the Behavior of Elementary Students with Attention-Deficit/Hyperactive Disorder." *Research in human development* 10, no. 3 (2013): 234-51. <https://doi.org/10.1080/15427609.2013.818487>.
- "Data and Statistics on Children's Mental Health." National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, 2020, <https://www.cdc.gov/childrensmentalhealth/data.html>.
- "Best Practices for Bringing Mindfulness into Schools." Mindful: Educator Community, accessed September 10, 2020, <https://www.mindful.org/mindfulness-in-education/>.
- Goleman, Daniel. "Focus : The Hidden Driver of Excellence." (2013).
- "Tackling the Challenges of Attention." Mindful: Educators Community, 2019, accessed September 10, 2020, <https://mindfuleducators.mindful.org/2019/08/21/tackling-the-challenges-of-attention/>.
- Hawkins, Kevin. *Mindful Teacher, Mindful School: Improving Wellbeing in Teaching and Learning*. SAGE Publications Ltd, 2017.
- Kabat-Zinn, J. "Mindfulness-Based Interventions in Context: Past, Present, and Future." *CLINICAL PSYCHOLOGY-SCIENCE AND PRACTICE* 10, no. 2 (2003): 144-56. <https://doi.org/10.1093/clipsy/bpg016>.
- Kress, Jeffrey S., and Maurice J. Elias. "Building Learning Communities through Social and Emotional Learning: Navigating the Rough Seas of Implementation." *Professional school counseling* 10, no. 1 (2006): 2156759. <https://doi.org/10.1177/2156759X0601000105>.
- Massetti, Greta M., Benjamin B. Lahey, William E. Pelham, Jan Loney, Ashley Ehrhardt, Steve S. Lee, and Heidi Kipp. "Academic Achievement over 8 years among Children Who Met Modified Criteria for Attention-Deficit/Hyperactivity Disorder at 4–6 years of Age." *Journal of Abnormal Child Psychology* 36, no. 3 (2008): 399-410. <https://doi.org/10.1007/s10802-007-9186-4>.
- Meiklejohn, John, Catherine Phillips, M. Lee Freedman, Mary Lee Griffin, Gina Biegel, Andy Roach, Jenny Frank, *et al.* "Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students." *Mindfulness* 3, no. 4 (2012): 291-307. <https://doi.org/10.1007/s12671-012-0094-5>.
- Merrell, C., and P. B. Tymms. "Inattention, Hyperactivity and Impulsiveness: Their Impact on Academic Achievement and Progress." *British journal of educational psychology* 71, no. 1 (2001): 43-56. <https://doi.org/10.1348/000709901158389>.
- National Research Council . Committee on Defining Deeper Learning and 21st Century, Skills. "Education for Life and Work : Developing Transferable Knowledge and Skills in the 21st Century." (2012).
- Rabiner, David L., and Patrick S. Malone. "The Impact of Tutoring on Early Reading Achievement for Children with and without Attention Problems." *Journal of Abnormal Child Psychology* 32, no. 3 (2004): 273-84. <https://doi.org/10.1023/B:JACP.0000026141.20174.17>.
- Semple, Randye J. "Does Mindfulness Meditation Enhance Attention? A Randomized Controlled Trial." *Mindfulness* 1, no. 2 (2010): 121-30. <https://doi.org/10.1007/s12671-010-0017-2>.

Shonkoff, Jack, and Andrew Garner. *The Lifelong Effects of Early Childhood Adversity and Toxic Stress*. American Academy of Pediatrics (2012).

Weare, Katherine. "Developing Mindfulness with Children and Young People: A Review of the Evidence and Policy Context." *Journal of children's services* 8, no. 2 (2013): 141-53. <https://doi.org/10.1108/jcs-12-2012-0014>.

Zenner, Charlotte, Solveig Herrnleben-Kurz, and Harald Walach. "Mindfulness-Based Interventions in Schools-a Systematic Review and Meta-Analysis." *Frontiers in psychology* 5 (2014): 603. <https://doi.org/10.3389/fpsyg.2014.00603>.