Toolbox for Tranquility: Using Meditation and Mindfulness to Ease Anxiety in the Classroom

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Abstract: After looking briefly at the current state of the Philadelphia School District in terms of mental health for students and reviewing the literature on current practices in mindfulness for students, we work to build a toolbox of mindfulness techniques and practices for students to control their own test anxiety in the classroom.

Keywords: anxiety, test anxiety, high school, mental health, mindfulness, coloring, walking meditation, meditation, breathing, guided imagery, relaxation

Unit Content

High school is stressful, and anyone who says otherwise is telling tall tales. I teach at one of the top 3 schools in the Philadelphia school district, which means my students are expected to take AP courses, excel in rigorous coursework, and participate in extracurricular activities. Doesn't sound too bad for students who want to go to a top university, does it? Now throw in some learning disabilities and other neuro-atypical

diagnoses, and suddenly it's not so easy anymore. That's where I come in. I teach special education in a school of 1200 students that in years past haven't had more than 6-8 students with IEPs every year. Our incoming 9th grade class this year had 24, and our new 9th grade in the fall will have 18 students with exceptional needs.

My students have autism, ADHD, and often a combination of the two. They also have learning disabilities and exceptional needs in math, literacy, or both. I teach two sections of math intervention, where the students are struggling so much that they're being pulled from another class to strengthen their math skills. These students are under an enormous amount of pressure to succeed in an environment that is more academically challenging than they've ever experienced before and even with help they feel like they're drowning in stress and anxiety.

The School District of Philadelphia is in the midst of a mental health crisis. Our students are struggling with their mental health, and their physical health and academic success is struggling as a result. High school academics have become more serious, rigorous, and stressful than ever before and there are no signs that this will change anytime soon. Students are taking multiple classes, each with homework and exams, plus whatever standardized state exams they're required to take at the end of the year. Exam stress in students, especially at a college-prep magnet school like mine, is at an all time high.

Enter my search for a way to keep student anxiety, and thereby my own as a teacher, in check. Teacher Institute of Philadelphia comes in strong with a class on Asian meditation traditions with a field expert who is also a UPenn professor. In Dr. Deven Patel's class on Asian meditation, we've done a great deal of research and discussion on the effects meditation can have on anxiety. Not only do we get to learn from an expert, but we get to be in class with other teachers and curriculum writers who have shared classroom experiences to talk through the finer points of bringing the academic research back to the classroom in meaningful ways.

Meditation can be traced back as far as the ancient Vedic times and texts of India; namely the Upanishads. Many current-day religions and communities use meditation practices as part of their devotion and/or worship. Meditation is also used in a non-religious, or minimally so, context in many yoga studios around the world.

Kabat-Zinn (2003) defined mindfulness as the act of consciously and non-judgmentally focusing on the present moment's unfolding experiences. Similarly, Bishop et al. (2004) recognized two key components of mindfulness: (a) the ability to regulate oneself by maintaining focus on the immediate present, and (b) maintaining an attitude of curiosity, openness, and acceptance. Bishop et al. (2004) also highlighted potential outcomes of mindfulness relevant to high school students, such as developing qualities like patience, trust, wisdom, and compassion, as well as the ability to resist immediate reactions to thoughts and feelings. Mindfulness can also help individuals become more

tolerant of challenging physical and emotional states (Shapiro, Carlson, Astin, & Freedman, 2006).

The benefits of mindfulness practices and the mechanisms of change in mindfulness meditation are well-suited for use in schools, especially with alternative school populations. Mindfulness-Based Stress Reduction (MBSR), an 8-week program developed by Kabat-Zinn (2003), combines mindfulness meditation, body scans, and yoga exercises, often adapted for adolescents. Studies as recent as the past several decades have shown that meditation and mindfulness can reduce depression, anxiety and pain, and can increase feelings of peace and self-awareness. More recently, studies have begun exploring the world of the American teenager (and other nationalities as well) and how their brains respond to anxiety, depression, and the attempts to mediate those feelings. Teenagers, as most of us remember, whether or not we want to, are full of big feelings and don't always have the appropriate outlet for all those feelings. People of all ages can get stuck in their own heads, in vicious cycles of anxiety or depression (or both.) As educators we often encounter students with bigger emotions than they know how to handle and contain. We're very good at helping in moments of crisis, but because we're always putting out fires (hopefully only metaphorical ones) we don't always have the time to learn about how to teach students to regulate their own emotions and recognize things they can control, let alone teach all those things to students.

A meta-analytic study by Zoogman et al. (2014) concluded that mindfulness meditation shows promise as an effective intervention for youth, with minimal risk of

harm. Research in school settings supports this view. For example, mindfulness activities have been linked to increased optimism and socially competent behaviors in pre- and early adolescents (Schonert-Reichl & Stewart Lawlor, 2010). Additionally, mindfulness practices have been associated with improved well-being in adolescents (Ngar-sze & Ming-tak, 2011) and enhanced academic performance in adolescents with learning disabilities (Beauchemin, Hutchins, & Patterson, 2008). An adapted MBSR program for adolescent boys was found to be particularly beneficial for those with higher anxiety and lower emotional stability (Huppert & Johnson, 2010). These studies provide strong support for integrating mindfulness practices into school settings, as they help students manage emotional symptoms, cope with stress, enhance well-being and optimism, improve relationships, and boost academic performance. Collectively, these benefits offer students a chance to enhance their quality of life and develop a greater sense of self-efficacy.

Research studies often need to have a relatively small focus in order to show any meaningful data and results. Meaning that most of the major research addresses a single strategy or a single type of strategy to manage anxiety of all sorts in the classroom.

Because the studies I looked at showed high levels of success in reducing anxiety in high school students, I thought it seemed worthwhile to give students multiple strategies, so that depending on their preferences, mood, and access level they can choose what tool or technique they want to use for themselves.

Matko and Sedlmeier, in their 2023 study, did actually look into multiple strategies of meditation and looked at different techniques for different individuals. They looked at concentrative meditation, humming, observing thoughts meditation, and walking meditation. For me, this study helped solidify my reason for wanting to have a toolbox to choose from. The four different techniques all had different effects on the 12 variables that the study measured, such as agreeableness, coping with stress, openness, and relaxation.

The four strategies that I will be teaching students to have in their Anxiety

Management Toolbox are: breath meditation, body scan mindfulness, walking/moving

meditation, and mindful coloring. These strategies are different enough that they will

likely appeal to a wide variety of students and be accessible to all students most of the

time. The entire purpose of the toolbox is that students have multiple things they can use,

and they can choose every time what technique feels best. I decided to stop at 4 because

any more than 4 choices feels too overwhelming and that's the opposite of the goal of this

unit.

Mindful breathing meditation is a practice that involves focusing your attention on your breath and observing it without judgment. It is a core element of mindfulness practice and is often used as a way to anchor your awareness to the present moment. To practice mindful breathing meditation, you typically find a quiet and comfortable place to sit or lie down. You can have students close their eyes if they want to, or keep them open and focus on a spot on a nearby object. Begin by taking a few deep breaths to center

yourself. Breathe in slowly, focusing only on the breath, and breathe out feeling the breath leave your body. The goal of mindful breathing meditation is not to stop your thoughts but to cultivate a sense of awareness and presence. Over time, this practice can help you develop greater focus, calmness, and emotional resilience. I intend to teach this technique to my students first, as I see it as an introduction or even a foundation to all the other forms of meditation.

Body scanning is a relaxation and meditation technique I learned in my own high school physical education class that I still use 20-some odd years later. This practice concentrates the mind on one part of the body at a time, contracting and relaxing those muscles before moving on to the next part. Some meditations start from the toes and go up to the head, and others start at the head and go down to the toes. Like focusing on breath, this technique allows one to release their mind of anything other than the particular part of their body they are contracting and relaxing at that moment. This is one of my favorite meditations to use for relaxing into sleep and less for mindfulness, but it can be used for either. I'm not sure how my teenage students will respond to this technique, but I'm certainly going to try it and see where it goes.

Walking meditation is practice, like the first two, that requires no supplies or materials. Also known as mindful walking, walking meditation is the practice of being fully aware of your body and how it's interacting with the ground and environment around the body while walking. This practice originated in China, with Buddhist monks who used walking meditation between periods of sitting meditation. Walking meditations

focus on how your feet feel on the ground, the rhythm of your legs and arms moving, how your breathing changes, and any other physical feelings that occur in the moment of walking. This too is a practice centered on being in the here and now, and sending all other thoughts away for another time. There is less research on this strategy for adolescents than some others, but I believe this will work for city high school students.

Lastly, I want to bring coloring meditation, of mindful coloring, to my students. This is a relatively new area of study for researchers, and has been shown to be effective in all age groups. This had been tested with a number of different conditions including varied coloring books, mandala designs, plaid designs, free drawing, and with different numbers of colors available. For my own classroom, I want to bring in mandala designs, maybe also some inspirational phrases, with no more than 12 colors available, and have students work in natural light with soft instrumental music playing. Coloring on a phone or tablet app has also shown positive results in reducing anxiety, and I do not plan to bring this into my classroom just yet. Perhaps as a next step in a future implementation, but not during the first time teaching this unit.

Teaching Strategies

Teaching strategies included in this unit are: guided practice, think-pair-share, journaling, muddiest point exit tickets, technology use, conferencing, and choice boards.

These strategies allow for the teacher to provide whole-group instruction, for the students to choose their own independent learning and practice paths, have meaningful

conversations with their peers and teachers about what they're learning, give feedback on where they were confused, and then spend some time writing about their experience.

These strategies do not need to happen in this order.

Guided practice is the standard "I do, we do, you do" that is very popular among teachers. Teachers demonstrate, work through an example with students, and then allow students to try on their own with scaffolded support as needed. This is a solid strategy for teaching a new skill or technique that students may be unfamiliar with.

Think-pair-share is exactly what it sounds like; students think on their own, talk with a partner, and then share out with the class. This is a useful strategy when students are sharing opinions and ideas, so every student gets a chance for thought time, a chance to share with someone else, and an opportunity to volunteer to share with the class.

Journaling is a practice I use a lot in my classes. Students can either be responding to prompts given by the teacher, or freely write about what's on their minds. With a unit like this on stress relief and relaxation techniques, with the students discovering what works best for them, keeping a journal throughout the unit makes a lot of sense and will help students to remember and track their experiences through different meditation methods.

Muddiest point exit tickets are a new favorite of mine. Students use these to write down the most confusing or unclear thing they experienced in class, and the teacher then uses them as feedback for clearing up those ideas in the next class. These allow students to pinpoint what was tricky for them at the time so they don't have to hold on to that confusion, and lets them know that they're being heard when the teacher responds to those exit tickets during the next lesson to clear up any confusion.

Using technology is not something new for my classroom, and I still prefer to limit time spent staring at screens. However, using music or guided meditation tracks online are going to be instrumental to this unit as a whole. Giving the students a variety of options within those ideas to explore and find what works for them is crucial to the process of them building their toolboxes. Students not only have their school-provided devices, but they have their own phones with internet access as well.

Conferencing with students is always an important part of the units I design for my classes; it gives me a chance to build rapport with the students and allows me to assess them in ways that a quiz or test never could. Sometimes I conference with students individually, sometimes in pairs, and sometimes in small groups. I feel it out depending on the day, how the students are, and what I need to discuss with the students. Getting that chance to talk to students out of the teaching mode is a great way to work through individual issues they may be having with content or anything else in the classroom.

Lastly, choice boards have become a staple in my classroom in the past 5 years.

After beginning to incorporate choice into my lessons, I very quickly saw engagement levels double or more. I bring choice to every lesson I can, and the more choice I use the more student engagement and retention goes up.

Classroom Activities

Lesson 1: 1 Class period - 45 minutes

Introduction to mindfulness and stress reduction

Guiding questions:

- What is stress? Why do our bodies experience stress? How do our bodies experience stress?
- How can we lessen the physical and psychological burden of stress on our bodies?

<u>Classroom strategies</u>: technology, journalling, guided practice, muddiest point exit ticket

Class Structure:

- -Review the basics of stress, can be a slide deck or a gamified review via Kahoot!, blooket, or similar
- -Introduce the idea of meditation and mindfulness, can be through videos or other online media
- -Have students create and design their own journals to record their thoughts and ideas over the course of the unit. Keep the inside of the journal empty for this class session. As they work, explain the process of journaling before and after meditation practices, and that journaling can be narrative words, abstract poems, drawing, or anything else that comes into their heads. An extension lesson after this unit could focus on collage-style

journaling where students choose a few pictures from print media that represent what's

happening in their brains and bodies on any given day.

-I recommend sending a letter home, either hard copy or virtual, to the parents/guardians

of the students who will be participating in this unit. Talking about stress and meditation

can bring up big feelings, and that doesn't always happen right after the practice is done

and can take place hours later. Keep transparent communication with all guardians who

express any concerns about the unit. Invite them to learn more about stress and

meditation along with their student, and keep channels of communication open.

-Ask students to write down one thing that confused them or that they didn't understand

in class (without their name) on a post-it and hand it in before leaving.

Lesson 2 - 3 Class periods - 45 minutes each

Counting of Breath Meditation

Guiding Questions:

- How are we connected to our own breath?

- How can we use our minds to start to tune out the outside world for a few

moments?

- What connections can we draw between stress and breath?

Classroom Strategies: Journaling, guided practice, conferencing

Class Structure:

- -Have students begin by writing in their journals what they're feeling at the moment.

 Remind students that their journals are just for them and nobody else will ever read them without express permission.
- -Instruct students to find a comfortable seat, either on their chair or on the floor. Bonus points if seats other than traditional chairs are available.
- -Have students either close their eyes, or focus lightly on a spot in front of them.

 Encourage students to close their eyes if they are comfortable but don't push it. Not everyone feels safe this way, and all students should feel absolutely safe and comfortable during this exercise. Ask the students to focus on your voice and follow your instructions. If this is not something you are comfortable leading, there are many online guided tracks that you can use. If you're using an online track, skip down to post-meditation journaling.
- -Ask students to focus on their breath, how it feels going into their bodies and how it feels going out. Remind them just to notice and not make judgements about those feelings. This is HARD, and it's okay to let students know that it's not easy.
- -For the first class, limit this practice to no more than 5 minutes, and focus just on the breathing and how it feels. Tell students that if they notice other thoughts in their heads to recognize them, and put them aside for later. Also, not an easy task but with practice it becomes easier.

-For the second and third classes, begin having the students count as they breathe in and out. Anywhere from a count of 5 to a count of 9 will work, and at the beginning it helps to facilitate that counting for the students for the first few breaths. Then they can continue on their own with the same practice of noticing and pushing aside outside thoughts.

Second and third classes can go as long as 10 minutes, longer is not advisable for students who are just beginning.

-As you end the practice with the students, have them go back to their journals and write down their thoughts and reflections each time.

-Conference with small groups of students as they reflect on their experience. You know your class best, so you'll know who you can pull in groups and who needs to be pulled in pairs or individually in order to get honest answers.

-Engage the whole class in discussion, have them share their experiences with what just happened and how they are feeling. Encourage students to be honest about how they feel, reminding them that they are not being graded on how they feel and if the technique did not make them feel any less stressed that's an absolutely valid feeling.

-Want to continue beyond 3 sessions? Add this practice into additional sessions as an opener. As students get comfortable, allow them to lead short sessions. Keep checking in to make sure students are comfortable and accommodate as needed.

Lesson 3 - 3 Class periods - 45 minutes each

Body Scans for Relaxation

Guiding Questions:

- How are our bodies affected by stress? Where do our bodies feel stress?
- What connections can we draw between anxiety and our bodies?

<u>Classroom Strategies:</u> Journaling, guided practice, choice board, conferencing, muddiest point exit ticket

Class Structure:

- -Have students begin by writing in their journals what they're feeling at the moment.

 Remind students that their journals are just for them and nobody else will ever read them without express permission. This will be a staple and the start of every class that works with meditation techniques at the beginning.
- -Provide students with the digital choice board, and explain the options to them. Make sure they each have earbuds or headphones to listen. Run through the choices that students have on body scans, including scans that focus on one or two parts and one choice for any students who may be uncomfortable focusing and mentally scanning any part of their body.
- -Remain present and aware while students are trying this for the first few times. Scan the room as needed to check for discomfort and check in with students as needed.

-As students wrap up their meditation, guide them back to their journals to write about

the experience. They can write about how they felt during the scan, or just how they feel

after. Once all students are done, remind them that their journals are totally private and

that all feelings are valid.

-After the second session, have the students write down their muddiest point from the day

(or anywhere in the unit) and hand it in anonymously. Students are encouraged to ask

questions, but can also simply state a point of confusion or an "I don't understand..."

-After the third session, ask students to reflect in their journals about how the experience

changed or didn't change for them over 3 practices. Did they choose the same video over

and over, or switch it up? Did it get more or less comfortable over time? Allow students

to share with the class if they want to.

Lesson 4 - 3 Class periods - 45 minutes each

Walking Meditations/Mindful Walking

Guiding Questions:

- Until now we've been mindful while staying in one place physically. How might

moving make the feeling of meditation different? What might be the same?

- How might where we walk affect how we walk?

<u>Classroom Strategies:</u> Journaling, think-pair-share, guided practice, choice board

Class Structure:

- -Have students begin the class by journaling, as usual, how they feel and what's on their minds the most that day.
- -Have students think about where they might like to walk for 5-15 minutes and how that location might affect them. Ask students to pinpoint at least 2 locations and some overarching words about each location. Give students 1 minute to think and write on a post-it, 1 minute to share with a partner (30 seconds timed for each partner to share,) and then allow several minutes for students to share their own or their partner's ideas with the class, not revealing whose idea it was. Make a list on the board or chart paper to keep a visual log of what's being suggested.
- -Using a list of viable options (don't list the beach if it's not possible, etc), anonymously poll students on what locations they would like to use. These can be in the classroom, the school, or safety permitting outside the school building. A location other than where students have been practicing meditation can be helpful for a clean start, but some students may be more comfortable in the classroom. My students chose the school gym, the fenced-in roof, and the park across the street.
- -For the first practice, ask students to simply walk around the perimeter of the gymnasium (or whatever your location) while trying to keep their mind on the physical action of walking. Give as few directions as possible; allow students to walk in any direction and at any speed. Allow students to change direction and speed as they like, as

long as they are aware of their surroundings. Actively monitor for discomfort or confusion as students begin to walk. Ask the students to remain silent and mindful of their movements as you return to the classroom.

-For the second practice, ask students to take a moment to remember what worked for them in the first walking meditation and bring that with them in their minds. This time, ask students to pick one speed and stick with it for the 10 minutes of walking. They can change direction and how the rest of their body is moving, but they should stay at approximately the same speed for the duration of the practice. This time, allow students to listen to instrumental music using earbuds or headphones if they wish. Actively monitor for discomfort or confusion as students begin to walk. Ask the students to remain silent and mindful of their movements as you return to the classroom.

-For the third practice, give the students a specific path to walk and a designated speed at which to walk. Position students, or have them position themselves, on different points on the path so they don't run into one another. If you're in a public space, remind students to be aware of their surroundings. Use your discretion as to how long to walk this time.

Allow students to listen to instrumental music or pre-selected guided walking meditation tracks. Actively monitor for discomfort or confusion as students begin to walk. Ask the students to remain silent and mindful of their movements as you return to the classroom.

-Have students record their thoughts and feelings in their journals when they return. Ask

them to reflect on what felt good and what didn't feel good. What felt relaxing and what

didn't. What changed with the different conditions and what was the same.

-After the third practice of walking meditation, ask the students to cobble together their

ideal meditation practice. Have them list the location, time, and technique of a meditation

practice they most want to try, and turn it in on an anonymous post-it. Bonus points for

you if you make this happen!

Lesson 5 - 3 Class periods - 45 minutes each

Mindful Coloring/Repetitive expression meditation

Guiding Questions:

- What about coloring do you think might be relaxing for you? Is there anything

that might be stressful?

- Which senses might coloring wake up for us? Which senses might get a rest?

- How can repetitive motion calm the body?

<u>Classroom Strategies:</u> Journaling, guided practice, choice, conferencing, technology use

Class Structure:

- -Have students begin the class by journaling, as usual, how they feel and what's on their minds the most that day. Encourage students to reflect on how meditation has had an effect on them so far (or not) and if/when they're practicing outside the classroom.
- -Provide students with a variety of designs and blank paper to choose from. Allow minimal choice of materials (such as just crayons or just colored pencils,) for the first session, and then allow more choice over material as the sessions continue. Play one instrumental background track for the entire class while students work for the first session, and give them more choice over their own music as sessions progress.
- -Conference with students individually as they work, ask how they feel in the moment, if they are more or less stressed than they were before they started, and how they think this compares to the other mindfulness methods they've built into their toolboxes so far.

 Encourage the students to name a stressful time in which this might be a good mindful tool to use.
- -Gradually lengthen the time that students have to color mindfully over the three (or more!) sessions, and have students include how they felt about the length of time in their journal reflections; was it too much, too little, etc. Ask students to consider the other mindfulness tools learned so far to reduce stress, and how they felt about each. Encourage them to think of stressful situations they have encountered recently and to choose a method that would work for reducing stress in that situation.

-Consider asking students to share any of their journal reflections at the end of the third

session. Let them know that these are all the tools that will be explicitly covered in class,

but they are free to ask about other tools and explore other mindfulness techniques that

may interest them.

Lesson 6 - 1 Class period - 45 minutes

Putting the Toolbox Together

Guiding Questions:

Which method of mindfulness did you find most effective for handling your

stress? Which did you find least effective?

- How might different techniques fit better in different scenarios?

What is a good way to remember that we have these tools available in times of

high stress?

Classroom Strategies: Journaling, choice, technology use

Class Structure:

-Have students complete one final journal entry, summing up how they feel and

addressing the guided questions for the day.

-Ask students to review their journals, considering if they want the teacher to read any or

all of it. Either have students highlight parts they want the teacher to see, or block

out/fold over parts they don't want the teacher to read. Remind students that they are not being graded on anything in their journals, and saying they don't want the teacher to read any of it will not affect their grade.

-Work with students to build their own visual toolbox of techniques. This can be a youtube playlist of guided practices, a grid like a choice-board with different ideas written in, or even a simple list written on paper or typed in a word processor. Encourage creativity with any ideas students have.

-Have students work in groups to create a poster representing each technique, to be displayed in the classroom as a visual reminder of the tools they've added to their stress management toolboxes. Students can create this design digitally, or on an actual poster board. Encourage students to include at least one image, the name of the technique, and modifications that can/should be made under different situations. More than one group can create a poster for each technique, and they can be given to other classrooms or put up in hallways.

Resources

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Appendix A - Common Core Standards

Stress management isn't anywhere in the Common Core, or PA State Standards!

We can look at this unit as Social Emotional Learning, or SEL, which can be built into the construct of Common Core or PA Standards and woven into lessons that loosely apply.

This unit does, however, almost sort of, fits with national guidelines put in place by SHAPE America, which Pennsylvania uses for its Physical Education and Health Standards. The only times stress is mentioned in the PA health standards is in how it applies to knowing about drug and alcohol abuse, and using physical activity to manage stress. There is nothing about mindfulness or social emotional learning.

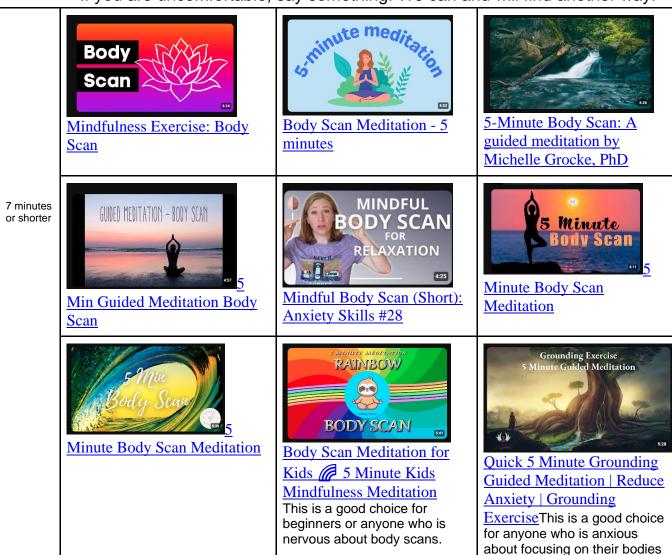
On the city level we come to the CASEL 5, which are a set of 5 broad categories of student competencies in social emotional learning most recently published in 2020. The Collaborative for Academic, Social, and Emotional Learning (CASEL, for short) is an organization making social emotional learning a crucial part of education from preschool up through high schools. The 5 major competencies are: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. This curriculum unit fits solidly into the Self Management competence, in addition to touching on self-awareness and responsible decision-making. Competencies and frameworks are not standards, but right now that's as close as we get with social emotional learning in Philadelphia.

Appendix B - Body Scan Choice Board

Body Scan Meditation Choice Board

Click on a link to explore that guided meditation.

<u>Remember:</u> You can switch videos if the one you choose isn't working for you. You never need to close your eyes or change position if you don't want to. If you are uncomfortable, say something. We can and will find another way.



the whole meditation.

Between 10 and 20 minutes



collective being | Trauma
Informed Grounding
Meditation with jo buick
This is an ideal practice for anyone who is sensitive to bodycentered ideas.



Body Scan Meditation |
Complete RELAXATION
for healing trauma and
releasing tension in the
body This is a good practice for
anyone who wants to explore
body scans and is anxious
about connecting with their
bodies.



BODY SCAN
MEDITATION 15
MINUTES /
MINDFULNESS / MBSR /
SHORT GUIDED
MEDITATION