

A Case for Environmental Health in the Health Classroom

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Abstract

The real-world impact of the climate crisis on our students' physical and mental health makes climate health a critical topic for health programs to address. However, due to the amount of content already mandated in Minnesota's health curriculum, teachers should look to interweave climate health topics into established lessons instead of incorporating them as a new, standalone unit. This article provides ideas on how to incorporate climate literacy into the health classroom.

Keywords

Climate crisis, climate literacy, environmental health, wellness, mental health, nutrition

There's a heatwave and wildfire smoke has engulfed our area. It burns my throat to be outside and it hurts my eyes. Everything is hazy. I think of my friend and her two little kids with no air conditioning. My house is messy, which stresses me out, but I invite them over for the day anyway. Children are especially vulnerable to the respiratory effects of increasing temperatures (Bignier, et al. 2024) adults face an increased heart attack risk in high temperatures (LeWine, 2026). This is a true scenario and also one I'll use in my classroom as we discuss the many levels of "environment" impacting our health. In this paper I explain how I incorporate climate literacy into my health classroom. In the scenario I just described, students can discuss impacts on physical health, mental health, social health, and environmental health. They can use the scenario to think through their own experience of the heat wave and reflect on the decisions they made or use it as a jumping off point for an advocacy project.

The climate crisis has an impact on student health, but do we have time to give it a place in a health classroom? The amount of content health teachers are required to cover in class makes incorporating new material, such as climate health, challenging. In Minnesota, health is legislated more than any other subject area. Not only do we have state standards to implement (MN Statute 120B.021), but state legislation requires health teachers to teach the following:

- Cardiopulmonary Resuscitation and how to use Automated External Defibrillators (MN Statute 120B.236)
- Sexually transmitted infections (MN Statute 121A.23) and sexual abuse prevention (MN Statute 120B.021 Subd. 1(c))
- Mental health and suicide prevention (MN Statute 120B.21)
- Vaping prevention (MN Statute 120B.21)
- Cannabis and fentanyl awareness (MN Statute 120B.215)

All of this and more (as indicated by the state standards) needs to be taught in just two semesters of health—one in middle school and one in high school (MN Statute 120B.024). Every lost class period due to field trips, snow days, etc., is one less day teachers have to teach crucial content, such as learning about birth control or how to recognize the signs of opioid overdose. Due to these schedule constraints and the established curriculum requirements, it would be hard for teachers to add climate literacy as a new unit. In light of these challenges, a more effective approach to climate literacy instruction is to weave it into already existing curricula.

There are several opportunities for teachers to incorporate climate literacy into their curricula. The easiest way is to include it through the Wellness Wheel. The Wellness Wheel is a content unit many health teachers teach at the beginning of their classes, which sets up a framework for holistic health. The goal of the Wellness Wheel unit is to encourage students to think beyond physical health and more about integrating the areas of their lives that contribute to their health. As a part of this framework—whether a teacher teaches six, eight, ten, or more dimensions of health—environmental health is usually one of those dimensions. Environmental health is summed up simply by Project School Wellness (n.d.) as “My Surroundings.”

In my class, we dedicate an entire class period to thinking through environmental health, which helps us also think through the skill of practicing healthy behaviors because we think in terms of what we can and cannot control. We talk about it in terms of students’ immediate surroundings, like their bedroom, and scale it up to their city, their state, their country, and the world. When we talk about environmental health, we ask ourselves: what is within our control? We read a story about Mae, who cannot control the fact that she has moved away from her gardens to the city, but eventually finds a way to exert some control over her environment by using pots to create an urban community garden (Florette, 2018). We look at artwork by Joan de Art and take time to imagine and illustrate our own idealistic future spaces.

So much of our class is discussion-based. One way I facilitate the discussion is through hexagonal dialogues, a strategy I found from the blog Slow Chat Health by Andrew Milne (2020) and Edutopia (2020). I have eight basic hexagons printed and laminated with each dimension of wellness (Figure 1). For the environmental health lesson, I also have 16 hexagons printed with images and text from the book *Florette*. Students discuss the book and its connections with the Wellness Wheel by puzzling together the hexagonal pieces. Each touching piece must have a reason for touching and each piece must be used. There is no right final configuration and students can then learn from other groups as to why they made the connections they made. The easiest way to incorporate Climate Literacy into the rest of the semester is to add a hexagonal discussion, including an environmental health hexagon, to every unit. First aid? Come up with a list of 20 first aid-related terms and throw in the Wellness Wheel hexagons. Mental health? Same. Nutrition? Same. That one simple hexagon and a routine of practicing hexagonal discussions is a way to pull climate through the rest of the course.

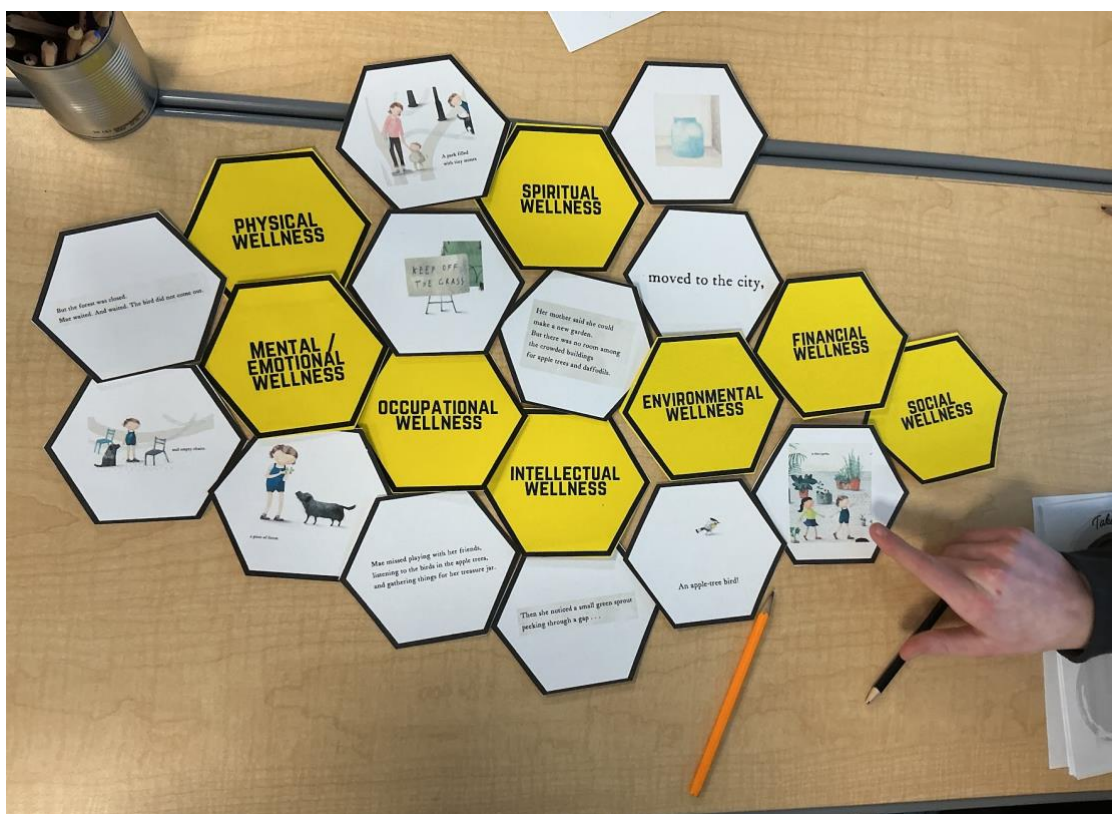


Figure 1: Example of hexagonal discussion

Mental health is an easy, content-based unit to infuse with climate literacy. Students today are anxious about the climate crisis; this climate anxiety is felt by many students throughout the world, as noted in *The Lancet* (Hickman et al., 2021). In a survey of 10,000 adolescents across ten countries, including the United States, the majority of respondents said they were either worried about the climate crisis (84%) or very or extremely worried (59%) and that it affected their daily functioning (45%) (Hickman et. al 2021). Therefore, it makes sense that we would address the climate within a mental health unit. In our classroom, we address climate anxiety during our lesson on identifying emotions. We learn about the importance of labeling feelings—the "name it to tame it" principle (Siegel & Bryson, 2011)—and discuss how we can feel many different emotions about a single topic. This serves as our entrance into discussing climate emotions. We watch the video "Gen Z Climate Stories" (Climate Mental Health Network, n.d.-a), in which young adults talk about their climate anxiety as well as the actions they take to feel hopeful. In the video, we see a range of feelings, including positive emotions like hope. We then use the framework from the Climate Emotions Wheel (Climate Mental Health Network, n.d.-b) to illustrate how we are feeling multiple, simultaneous emotions surrounding the climate crisis.

Nutrition is another opportunity to weave climate literacy into the health classroom. Our food systems are being impacted by the climate crisis (Mirzabaev et al, 2023). In my nutrition unit, we learn about the nutrients and the importance of eating nutrient-dense foods, and then we work through the SHAPE America health skills. When practicing decision-making, we look into how people choose their diets; this is a great opportunity to discuss food accessibility, food transportation, seasonal eating, and eating for planetary health. These themes also come into play when analyzing influences on what we eat. When practicing advocacy skills, many of these themes come up again as I provide students with a range of articles and videos to choose from as a base for their advocacy. Recently, my most popular topic in the work advocacy work collected by students is the idea that we should be eating more insects. According to the TED ed video they've chosen, insects can be farmed on a much smaller scale than cattle, so even though you'd need to eat a lot of them, their carbon footprint per pound is very small (Bryce, 2015). Students are able to complete this advocacy work in a single class period. If there is time or a substitute teacher, students watch the documentary, "The Optimist's Guide to the Planet: Nourish" (Bloomberg & Coster-Waldau, 2024).

Using climate literacy as a lens through which we study Health or treating it as a layer of an everyday lesson, has been an effective way to incorporate climate literacy into my Health classroom without losing time for other important topics. To support other Health educators in doing so, I share three curricular supplements (with links to relevant resources) in the appendices to this article.

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Appendix I: Mental Health Identifying Emotions Supplement: Climate Emotions

Overview

This is a chunk of a lesson on identifying emotions. The work prior to this activity drew on resources like *Heads Up: Changing Minds on Mental Health* by Melanie Siebert (2020) and the [How Would You Feel? scenarios](#) from Be Good People to establish the why and how of identifying emotions. This supplement supports students in understanding that they can feel many emotions at the same time and answers questions as to what to do with the emotions they are feeling. The supplement is based on resources from the Climate Mental Health Network.

Students watch the movie “Gen Z Mental Health: Climate Stories.” As they watch the short film, they track the emotions they see on a Mood Meter; my students continue their work with the Mood Meter from Be Good People, but you could also use the Climate Emotions Wheel from the Climate Mental Health Network. The movie is followed by group discussion and personal reflection on climate emotions.

At a Glance

Unit Time	20 minutes
Grade Level(s)	6-8
Core Text	<i>Gen Z Mental Health: Climate Stories</i> (Link)
Supporting Texts	<i>Climate Emotions Wheel</i>
Objectives	Students will: • Identify emotions and how they can change throughout the day and over time • How being aware of your feelings influences behavior and vice versa • How expression of your feelings helps/hurts oneself/others • Healthy/unhealthy ways to manage unwanted emotions like: anger, stress, anxiety, frustration, disappointment, sadness

	Standards: • 1.8.4 Analyze practices and behaviors that support health and well-being, including how to manage health conditions. • 7.8.2 Analyze practices and behaviors that support personal health and well-being.
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Lesson Sequence

- Before watching the video, ask students to reflect on topics that bring up a variety of emotions. Emphasize that some situations can elicit a variety of emotions.
- Before watching the video, assign each student a different person featured in the video to focus on. In each discussion group after the video, the students should have tracked different people. Let them know they will be responsible for being the expert on their person.
- As students watch the movie, ask them to mark the emotions they hear the person they are assigned to expressing on their mood meters using BINGO chips. If you would like to have students take notes, that is an additional option.
- After the movie, facilitate discussion about the emotions that were shared. The discussion may be supported by using RMC Health's [sentence frames](#).
 - How did climate change influence the emotions of the people in the video? Share the emotions your person expressed in the video.
 - Is climate change an internal or external influence on their emotions?
 - What did your person do because of their climate emotions? How did being aware of their emotions help themselves and others?
 - How did acting change the emotions for the person you tracked?
 - How do you think your person is affecting the future due to their actions?
 - Can adverse emotions affect positive change?
- After the movie discussion, give students time to think about their own climate emotions. Share the Climate Emotions Wheel and encourage students to [illustrate or journal](#) their emotions for each section of the wheel.

Go Further

This activity is simply a supplement to a broader lesson on identifying emotions for Health teachers who are strapped on time. If you have more time to dig into climate emotions, there are additional lesson plans from [Subject to Climate](#).

Appendix II: Wellness Wheel Environmental Health Supplement: Joan de Art

Overview

Students will take time to look through solarpunk art created by the artist Joan de Art. Students will then reimagine a space of their choice for a better future.

At a Glance

Unit Time	15-20 minutes
Grade Level(s)	6-8
Core Text	Solarpunk artwork from Joan de Art
Supporting Texts	Instagram Account: @joan_de_art
Objectives	SHAPE America Standards: 1.8.6 Analyze how individual, interpersonal, community, and environmental factors impact health and well-being.
Materials and Resources	Printed color solarpunk images from Joan de Art Paper Colored pencils

Lesson Sequence

- Provide each group with a different printed solarpunk art piece by Joan de Art
- Facilitate discussion:
 - What is your favorite part of the image?
 - How is this space similar or different from one you already have access to?
 - What would it be like to have access to this space?
 - How would this space affect your health?
 - How would this space affect community health?
 - What do you think is doable in this image?
- Every two minutes, have students pass their artwork to the next table so that they can discuss each piece of artwork.
- Provide students time and resources to imagine their own future spaces. Students will pick a space that is a part of their world and update it to make it ideal for individual and community health.

Appendix III: Wellness Wheel Environmental Health Supplement: *Florette*

Overview

Students will read the *Florette* by Anna Walker. Students will then engage in a hexagonal discussion connecting *Florette* to the dimensions of Wellness.

At a Glance

Unit Time	20 minutes
Grade Level(s)	6-8
Core Text	<i>Florette</i> By Anna Walker (YouTube)
Objectives	Students will know that they have some agency over their environments.
Materials and Resources	<i>Florette</i> Table Discussion guide (link) Hexagonal discussion tiles for <i>Florette</i> (link)

Lesson Sequence

- Read *Florette*, by Anna Walker
- In groups students discuss:
 - Retell the story as a group
 - What was out of Mae's control?
 - What was in Mae's control?
 - What barriers did Mae face?
 - How did Mae show resilience?
 - How did Mae's garden improve her own health?
 - How did Mae's garden improve her community?
 - What are some possible next steps for Mae? (Example: she could get permission to plant a garden in her community park.)
- Students will then work with hexagon tiles to connect *Florette* to the dimensions of health.
- Gallery walk: Students will choose one group member to stay behind to explain the hexagonal tiles. The rest of the group will complete a gallery walk to see how other groups connected their hexagons. Option to have students create a video submission explaining their hexagon maps.