

2025



CLIMATE EMOTIONS IN K-12 EDUCATION

A guide for Canadian educators



Website
LSF-LST.ca

Email
info@LSF-LST.ca

Written by Jennifer Dobai in collaboration with the Viessmann Centre for Engagement and Research in Sustainability (VERiS) at Wilfred Laurier University and Learning for a Sustainable Future

Honouring Emotions in Climate Learning

As you explore this resource, please keep in mind that discussions about climate change and climate emotions may be difficult for some students. These topics can bring up feelings of fear, grief, or anxiety, especially for those with lived experiences of climate-related events such as wildfires, flooding, or extreme weather. We encourage you to navigate these conversations with empathy and care to foster a supportive environment where all students feel heard, respected, and safe enough to express their thoughts and emotions.

Climate Emotions in K-12 Education

Context / Background Information for Educators

Globally, young people are among the most vulnerable groups to climate change. Due to heightened present-day physiological vulnerability and psychosocial impacts, they face greater risks to their health and well-being.^{1,2} They also face disproportionate risks to their future living standards due to increased precarity and prolonged lifetime exposure to climate-driven ecological and socio-political instability over the decades to come.^{3,4}

As young people's awareness and recognition of these risks increases, so does the potential for psychological distress. As they become increasingly aware of climate risks, youth often experience heightened psychological distress, characterized by anxiety, fear, despair, and powerlessness, among other emotions.^{5,6} Learning for a Sustainable Future's (LSF) recent national climate change education survey, "From Awareness to Action: Canadians on Climate Change and Education" collected data from 4,228 respondents including the general public, students, parents and educators. Participants reported climate change impacting their mental health and wellbeing, with 41% of students feeling anxious and 27% feeling frightened about climate change. Additionally, a survey of 1,000 Canadian youth (16-25 years old) found that "8 in 10 reported that climate change impacts their overall mental health."⁷

In the educational context, schools play a critical role in shaping young people's attitudes, beliefs, and behaviours toward climate change and sustainability.⁸ However, the emotional dimensions of climate change are often overlooked in traditional educational frameworks, with limited attention given to addressing eco-anxiety and related emotions.⁹ Galaway et al. (2023) found that 6 in 10 young people in Canada believe that the education system should focus more, or a lot more, on climate change's social and emotional dimensions.¹⁰

The Challenge

Despite the need to integrate emotional aspects of climate change, in the LSF climate change education survey¹¹, 47% of educators feel they have the knowledge and skills needed to teach climate change effectively. They also report looking for support, including professional development (60%), climate change teaching resources (51%), and a school-wide culture that promotes climate change education (39%).

Similarly, the literature shows that overcrowded curricula, political beliefs, a lack of resources, climate misinformation, and educator confidence can make it difficult for educators to integrate climate education meaningfully and impactfully into their classrooms.^{12 13 14}

These challenges highlight the need for comprehensive strategies to support students' mental health and emotional resilience within educational settings while also fostering a deeper understanding of the complex interplay between climate change, mental health, and education.¹⁵ Resources to address climate emotions in educational settings are rapidly emerging (see resources throughout). However, there has been limited evaluation or assessment of their effectiveness. This guide and accompanying resource list are intended to support exploration in the classroom. At the time of publication, all listed resources have been reviewed and are recommended as a starting point.

Table of Contents

Climate Emotions in K-12 Education.....	1
Context / Background Information for Educators.....	1
Table of Contents.....	3
What are Climate Emotions?.....	4
Why is it important to address climate emotions in education?.....	6
Addressing Climate Emotions by Grade Level.....	7
Holistic Strategies for Mitigating Negative Climate Emotions and Promoting Positive Climate Emotions in Education.....	8
Fostering Collective Action, Empowerment, and Hope.....	8
Mindfulness and Self-care.....	10
<i>Featured Activity: A Love Letter to Earth.....</i>	<i>12</i>
Nature-based activities.....	13
Art and Creativity.....	14
Storytelling.....	14
Example – Digital Storytelling.....	15
Building Emotional Literacy.....	16
<i>The Climate Emotions Wheel.....</i>	<i>16</i>
Recommendations for Educators.....	17

What are Climate Emotions?

Climate emotions refer to the wide range of feelings and emotional responses people experience to the climate crisis and its impacts. They encompass emotions such as anxiety, grief, anger, frustration, sadness, fear, guilt, and feelings of hope, empowerment, and resilience, reflecting the complex interplay of challenges and possibilities associated with environmental change.^{16 17 18}

Climate emotions can arise from both direct and indirect effects of climate change and climate action.^{19 20 21 22}

Some examples of situations that may trigger negative climate emotions:

- Experiencing extreme weather events like hurricanes, wildfires, or floods.
- Witnessing local environmental degradation, such as pollution in a nearby river or trees being cut down in a beloved forest or park.
- Reading news about animals going extinct due to habitat loss or climate changes.
- Noticing litter in public spaces or seeing single-use plastics being used excessively.
- Witnessing the impact of climate disasters on vulnerable communities, such as people losing their homes or livelihoods.
- Realizing how slowly governments and corporations are acting to address the crisis.
- Feeling excluded or unsupported when trying to discuss or take action on climate issues.
- Learning about how much needs to be done to stop climate change and feeling like it's too big to handle.



Some examples of situations that may promote positive climate emotions:

- Participating in climate action such as a school cleanup, planting trees, or organizing a recycling drive.
- Hearing about new policies or initiatives to reduce carbon emissions, like renewable energy projects.
- Seeing neighbours come together to create a community garden or share resources during difficult times.
- Spotting birds, bees, or other wildlife returning to areas after restoration efforts.
- Hearing about young activists like Autumn Peltier or other Indigenous leaders fighting for environmental justice.
- Making like-minded friends through environmental clubs, workshops, or community projects.
- Noticing more people using reusable bags, cycling, or buying locally sourced products.

- Feeling hopeful after learning about the small steps everyone can take to reduce their carbon footprint.
- Sharing knowledge about sustainable practices with friends or family and inspiring them to take action.
- Connecting with others who feel similarly and finding your climate community.
- Participating in virtual climate spaces, such as [Our Climate Café](#).
- Being inspired by sustainable actions or initiatives of friends or family.



In addition to the term 'climate emotions,' various other terms describe specific emotions related to climate change. Some climate-specific emotions are:

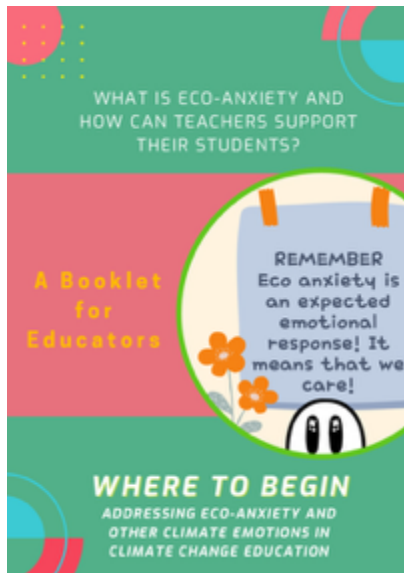
- **Climate anxiety/eco-anxiety:** “a chronic fear of environmental doom”²³
- **Eco-rage/ eco-anger:** describes the intense anger that can be felt in response to environmental degradation and climate change. It can also be directed towards the people and systems responsible for the Earth's destruction.^{24 25}
- **Solastalgia:** “describes the anguish or despair we feel when we realize that the place we live in and love is chronically deteriorating, and the comfort—or solace—we derive from the current state of our home environment is gradually disappearing”²⁶
- **Soliphilia:** “the love of and responsibility for a place, bioregion, planet and the unity of interrelated interests within it”²⁷
- **Eco-paralysis:** “the inability to meaningfully respond to the climatic and ecological challenges”^{28 29}
- **Eco-grief/Climate Grief:** “the grief felt in relation to experienced or anticipated ecological losses, including the loss of species, ecosystems, and meaningful landscapes due to acute or chronic environmental change”³⁰

It is important to note that negative climate emotions are valid, given the magnitude of the climate crisis.

Understanding the different emotions people feel about climate change is important because it helps us see how everyone experiences and reacts to the crisis in their own way. While many studies focus on negative feelings like fear or anxiety, it's also important to pay attention to positive emotions like hope and empowerment.³¹ These positive feelings can help people stay motivated, take action, and imagine a better future, even in the face of big challenges. Focusing on positive emotions can give us the strength to keep working toward solutions and support one another.^{32 33 34 35 36}

Why is it important to address climate emotions in education?

Addressing climate emotions in education is important because it can help students develop emotional intelligence, build resilience, foster a sense of agency and empowerment, and build empathy and understanding for those affected by climate change.



By equipping students with the socio-emotional skills and knowledge necessary to navigate the complexities associated with climate change, we can help to create a generation of climate leaders who are prepared to take meaningful action to address this critical issue.

Students who understand the emotional impacts of climate change and develop coping skills to manage these emotions, are more likely to feel a sense of agency and empowerment in their ability to take action to address climate change, which in turn improves their mental health and well-being.

Furthermore, addressing climate emotions in education can help to build empathy and understanding for those who are most affected by climate change. This is important because it fosters a sense of global citizenship and motivates students

to think about climate change through a community lens and to take action to address climate change both locally and globally.

Source: [What is eco-anxiety and how can teachers support their students? A Booklet for Educators](#)



Addressing Climate Emotions by Grade Level

Grade Levels	Key Focus	Climate Emotions	Strategies	Example Activities
K-2	Building empathy and connection to nature.	Introduction to basic feelings (sadness, worry) related to climate change.	• Storybooks and simple lessons that address climate change in a positive way. • Activities that focus on environmental stewardship (e.g., planting trees, recycling). • Simple mindfulness exercises to help children manage stress and worry. • Regular times spent outside and in the community to promote awareness and caring	• Art and Emotion Unit Plan • Climate Fiction (Cli-fi) Picture Books ◦ Additional recommendations: ◦ Coco's Fire: Changing Climate Anxiety into Climate Action ◦ All the Feelings Under the Sun: How to Deal With Climate Change • Nature Appreciation
3-6	Encouraging understanding and agency.	Eco-anxiety and basic eco-guilt, with an emphasis on solutions.	• Classroom discussions to normalize climate concerns. • Journaling and reflection activities to help students articulate their emotions. • Problem-solving activities that focus on local environmental challenges.	• Song Analysis Lesson: Xiuhtezcatl's "Broken" • Art and Animations Unit Plan • Climate Emotions Wheel
7-12	Deepening understanding of climate change and emotional resilience. Empowering students through leadership and action.	More complex emotions, including eco-rage and eco-grief, mixed with eco-hope.	• Group discussions on current climate events and how they affect students. • Social-emotional learning (SEL) strategies to manage eco-anxiety and frustration. • Opportunities to identify and articulate community attributes that contribute to their quality of life • Encouraging students to take action through school-based projects or local advocacy.	• Math Lesson: Mean, Median, Mode • Action Projects • Eco-Emotions Lending Library Game (North Bay Parry Sound District Health Unit) • Our Well-Being in a Changing Climate: A Wellness Tool • The Climate Change Conundrum

Please note this is a recommended starting point. Teachers know their students best, and this is intended for exploration rather than as a comprehensive list.

Holistic Strategies for Mitigating Negative Climate Emotions and Promoting Positive Climate Emotions in Education

Addressing climate emotions in education requires a holistic approach that recognizes students as complex individuals shaped by their personal experiences, emotions, and environments. This includes considering both their positive and negative emotions, as well as the broader social, cultural, and ecological contexts that influence their well-being and learning. Negative emotions such as eco-anxiety, grief, and anger, though challenging, can serve as powerful motivators for action when processed in supportive environments. Positive emotions, including hope and empowerment, play an equally critical role in sustaining engagement and preventing burnout.

This section explores strategies to help students navigate these emotions in a way that supports their well-being and inspires meaningful action. It begins with understanding the dual role of climate action and emotions, emphasizing the balance between acknowledging distress and fostering active hope. Subsequent sections delve into building emotional literacy, using tools like the [Climate Emotions Wheel](#) to distinguish and process climate emotions, and harnessing creativity, arts, and storytelling to enhance emotional resilience. Together, these strategies provide educators with the tools to create emotionally supportive learning environments that inspire students to envision and contribute to a sustainable, just future.

Fostering Collective Action, Empowerment, and Hope

Negative climate emotions, such as eco-anxiety, grief, guilt, and anger, play a complex role in responses to the climate crisis. These emotions often stem from a profound sense of care and responsibility for the environment, as well as recognition of the urgency for change. When processed and validated within supportive environments, they can act as powerful motivators, driving individuals toward meaningful climate action. However, excessive or unprocessed distress can lead to eco-paralysis; a state of emotional overwhelm where fear, despair, or hopelessness inhibit action. This paralysis often manifests as disengagement or apathy, posing a barrier to addressing climate challenges effectively.

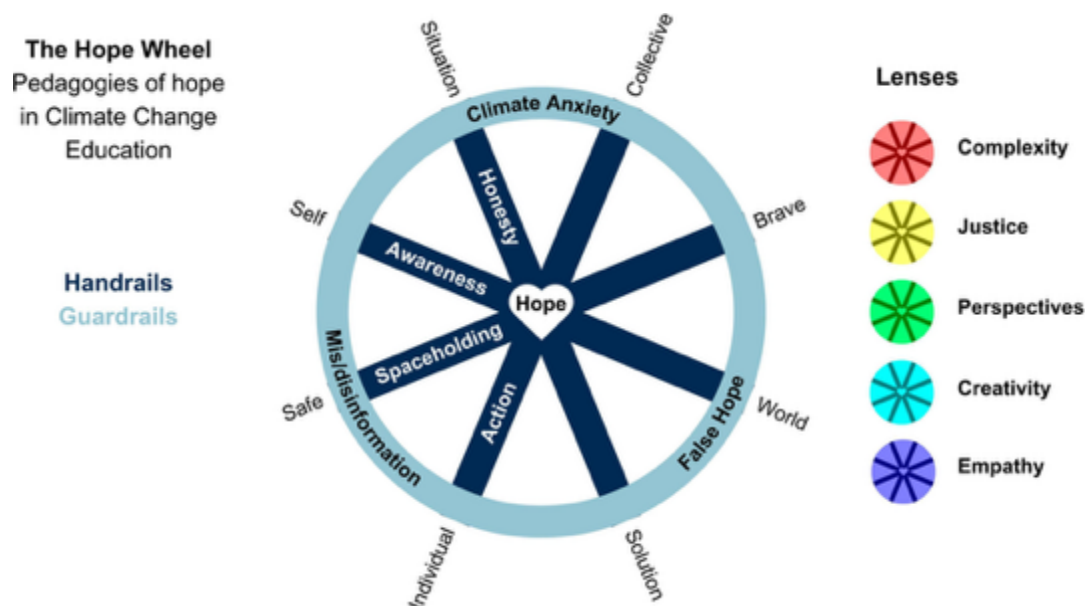
Climate action holds a dual function in this dynamic. Taking action can alleviate feelings of powerlessness by providing a sense of agency and purpose. Participation in community initiatives, advocacy for policy changes, or adopting sustainable practices reinforces the belief that individuals and groups can effect change, creating a positive feedback loop of empowerment and optimism. However, engaging deeply in climate action can also heighten awareness of the scale of the crisis, risking burnout or emotional exhaustion without sufficient coping mechanisms or emotional balance.

A crucial concept for navigating this emotional complexity is Active Hope, as described by Joanna Macy and Chris Johnstone in their work on resilience and empowerment. Unlike optimism, which assumes that everything will naturally turn out well, active hope involves taking intentional steps toward desired outcomes, even in the face of uncertainty or adversity.

It is grounded in recognizing the realities of the climate crisis while fostering a commitment to action and change. Active hope transforms despair into energy for constructive engagement, making it a vital tool in both personal and collective responses to the climate emergency.³⁷

Building on these ideas, [Finnegan and d'Abreu \(2024\)](#) propose *The Hope Wheel*, a theoretical model designed to help educators implement hope-based pedagogies in Climate Change Education (CCE). The Hope Wheel emphasizes three foundational elements:

- **Handrails:** honesty, awareness, spaceholding, and action to guide learners through challenging emotional landscapes.
- **Guardrails:** acknowledgment of climate anxiety, mis-/disinformation, and false hope to avoid emotional overwhelm or misplaced optimism.
- **Lenses:** focusing on complexity, justice, perspectives, creativity, and empathy to ensure that climate education remains inclusive, empowering, and solution-oriented.



Fostering empowerment and hope requires intentional strategies in educational settings. Hope, including active hope, sustains engagement by helping individuals envision a positive future and stay motivated despite challenges. Solution-focused educational strategies, such as group projects, youth-led movements, or participatory design for local climate initiatives, help build social connectedness and reinforce the idea that collective action is impactful and shared.

Holistic approaches to managing climate emotions are essential for sustaining engagement. Validating negative emotions while introducing coping strategies—such as mindfulness, emotional literacy, and creative expression—lays the foundation for resilience. Tools like the [Climate Emotions Wheel](#) can help students distinguish between emotions like eco-anxiety, eco-guilt, or eco-rage, promoting emotional clarity and balance. Arts-based methods and

storytelling are especially valuable in this process, engaging creativity and imagination to help individuals process their emotions and envision sustainable, just futures.

Ultimately, fostering a culture of active hope, solution-focused thinking, and collective action transforms distress into a driver of constructive change. Educators play a critical role in recognizing the risk of eco-paralysis and providing pathways for students to move from emotional overwhelm to meaningful participation in climate solutions. By encouraging active hope and using models like The Hope Wheel, educators equip students with the resilience and purpose needed to address the climate crisis effectively.

Check out LSF'S Action Project Resources [here](#).

Sources: ^{38 39 40 41 42 43 44 45 46 47 48 49 50 51}

Mindfulness and Self-care

Mindfulness and self-care practices have emerged as tools for managing eco-anxiety and other climate-related emotions. Mindfulness, defined as the intentional focus on the present moment with acceptance, has been shown to reduce stress, enhance emotional regulation, and promote resilience in the face of environmental challenges.^{52 53 54} Self-care, encompassing activities that nurture physical, mental, and emotional well-being, complements mindfulness by fostering a sense of agency and stability in uncertain times.^{55 56 57} Potential practices could include:

- **Mindful Breathing Exercises:** Starting or ending a class with a few minutes of guided breathing to help students manage stress and stay present.
- **Reflective Journaling:** Encouraging students to write about their climate emotions, fears, and hopes as a way to process their feelings and develop emotional awareness.
- **Movement-Based Self-Care:** Incorporating yoga, stretching, or mindful movement activities to help students release stress and cultivate bodily awareness.
- **Gratitude and Hope Practices:** Encouraging students to reflect on what they are grateful for and identify sources of hope, helping to balance eco-anxiety with a sense of possibility.
- **Nature-Based Activities:** Organizing outdoor walks or gardening projects to help students connect with nature.
- **Community Care or Safe Circles:** Creating spaces where students can openly discuss their emotions, share experiences, and support one another in a non-judgmental setting.

- **Positive Storytelling and Media Breaks:** Helping students quiet their minds by taking intentional breaks from distressing climate stories or by actively seeking out and highlighting positive climate news or climate action success stories.

Check out individual or group mindfulness and mental health exercises and lessons you can implement in the classroom [here](#).

Other Activities

The [Emotional Resilience Toolkit for Climate Work](#) is a handbook designed to provide emotional support, resources, and tools for eco-anxiety, grief, and the range of feelings that accompany climate work. There are a range of activities that can be adapted to students of various grades. Specific mindfulness and resilience practices for youth include:

- The Tree is Me (pg. 18): a guided imagery meditation to connect with nature.
- Coming Home to Yourself, A Centering Practice (pg. 19): a self-care guided practice.

[“Breathing & Moving with Our Climate Emotions”](#) offers breathing exercises and writing prompts to work through climate emotions.

These practices also create space for self-compassion and gratitude, which is particularly important for mitigating feelings of guilt and powerlessness associated with environmental crises.^{58 59} Incorporating mindfulness and self-care into educational or community settings provides students sustainable coping mechanisms while cultivating a supportive environment for collective resilience.

Featured Activity: A Love Letter to Earth



By focusing on gratitude and fostering a sense of connection to the Earth, this short activity helps shift attention away from feelings of anxiety and despair toward hope and empowerment.

In order to bring hope and positivity into your climate discussions, we encourage you to use the following prompt and template:

Write a heartfelt love letter to Earth, expressing your gratitude for its beauty, resilience, and the life it sustains. Reflect on the steps we can take and the actions you feel inspired to commit to in cherishing and protecting our planet.

You can encourage younger students to draw what they love about the earth.

An example of using this activity in the classroom could include reading a chapter from [Braiding Sweetgrass for Young Adults](#)⁶⁰ (e.g., The Gift of Strawberries) and then having students reflect on the chapter, how they connect with the land, and write their love letters. Braiding Sweetgrass for Young Adults also provides a teaching guide with reflection and discussion questions for students. You can find this resource [here](#).

Nature-based activities

Nature-based activities play a crucial role in helping individuals process climate emotions by fostering a deeper connection to the natural world. Activities such as guided nature walks, outdoor mindfulness exercises, gardening, and ecological restoration projects provide opportunities for reflection, stress relief, and emotional regulation.

Engaging with nature can help alleviate eco-anxiety by shifting the focus from despair to active care and stewardship. These experiences cultivate a sense of belonging, resilience, and hope, reinforcing the idea that individuals are part of a larger ecological system capable of regeneration and renewal. By integrating nature-based activities into educational and community settings, we can create supportive spaces where climate emotions are acknowledged, processed, and transformed into meaningful action.^{61 62 63}



[Nature Appreciation Activity \(p. 13\)](#): In this lesson, students will play, explore, appreciate, and practice perspective-taking in nature. All of these actions help positively connect youth to nature and instill an ethic of care for the environment. Suitable for K-12.

Check out LSF's resources for nature-based and outdoor activities [here](#).

Art and Creativity

Art and creativity play a vital role in understanding, expressing, and transforming climate emotions. Artistic expression provides a powerful medium for students to process complex feelings such as eco-anxiety, grief, and hope. Through visual arts, music, storytelling, poetry, or performance, students can communicate emotions that may be difficult to articulate verbally, fostering emotional release and resilience.^{64 65} Additionally, by integrating art and creativity into climate education, educators can empower students to channel their emotions constructively while fostering a sense of connection and possibility.^{66 67}



Find creative projects focused on processing climate emotions [here](#). Use these to inspire creativity and hope in students or to process climate emotions as a classroom.

See [Climate Doom to Messy Hope: Climate Healing & Resilience A Practical Handbook for Climate Educators and Community](#), pages 26-27, for guided arts-based activity to promote connection to place, climate, and community. This activity seeks to weave a personalized storyline that highlights sense of place, understanding of climate impacts and solution-based thinking at community levels.

Storytelling

Storytelling is a particularly powerful tool in addressing climate emotions because it bridges emotional understanding and cognitive engagement, helping students make sense of complex and often overwhelming issues. Gearty (2015) highlights that “narrative and storytelling can play an important role in both action research and action learning by helping individuals not only learn through the telling of their own stories but also through their engagement in the stories of others.”⁶⁸ Finnegan (2022) suggests that creatively engaging with the future through storytelling can provide “opportunities for facing climate anxiety, positive reappraisal, and constructively engaging with the climate crisis.”⁶⁹



One emerging form of storytelling that plays a vital role in this process is climate fiction (cli-fi). Cli-fi explores the impacts of climate change through speculative and science-based narratives, immersing readers in possible futures shaped by environmental crises. By emotionally engaging with these stories, individuals can process eco-anxiety,

reflect on humanity's role in the climate crisis, and imagine alternative, more sustainable futures. Like other forms of storytelling, cli-fi serves as both a coping mechanism and a catalyst for action, fostering resilience while inspiring creative problem-solving in the face of climate challenges.^{70 71}

Resources for Cli-fi: [Cli-fi Picture Books](#), [Cli-fi books for grades 3-6 and 7-12](#), [Writing Cli-fi Activity](#).



[The Lonely Polar Bear by Khoa Le](#)



[Haven Jacobs Saves the Planet by Barbara Dee](#)



[Stormteller by David Thorpe](#)

Example – Digital Storytelling



Finnegan (2022) uses digital storytelling to explore how young people (15 -18 years old) imagine futures shaped by climate change and our collective response to the climate crisis.

The process included in-person and online workshops where students wrote letters from their future selves to their current selves, which were then turned into multimedia narratives.

The storytelling process helped shift participants' emotions from predominantly negative to a more

balanced spectrum, including acceptance, curiosity, and hope. This shift was facilitated by creative and collective engagement with the future.

The study highlights the potential of speculative digital storytelling as a participatory research method and educational practice. It can help young people develop resilience, agency, and futures literacies, while also addressing climate anxiety and fostering empathy and solidarity.⁷²

View the digital stories from this study [here](#). Check out [LSF's Write a Postcard from the Future Activity](#).

Building Emotional Literacy

Emotional literacy, defined as the ability to recognize, understand, and manage one's emotions, is a foundational skill for navigating complex and challenging issues such as climate change.^{73 74 75} Research highlights its critical role in fostering resilience, improving interpersonal communication, and promoting emotional well-being, particularly among children and adolescents.⁷⁶ Emotional literacy enables individuals to articulate and process eco-emotions like anxiety, grief, and anger, which are common in the context of climate crises.⁷⁷



Tools like the [Climate Emotions Wheel](#) (Climate Mental Health Network, 2024, see below) are particularly effective in this regard, as they help students identify and name their emotions in relation to climate change, fostering a deeper understanding of the emotional landscape.

Programs integrating emotional literacy into education, such as the [RULER approach](#) or [SEL \(Social and Emotional Learning\)](#) frameworks, have shown significant benefits in enhancing emotional regulation and empathy. These skills not only help students cope with negative emotions but also build a foundation for hope, empowerment, and constructive action. Cultivating emotional literacy through classroom discussions, arts-based activities, mindfulness practices, and tools like the Climate Emotions Wheel equips students with the tools to navigate the emotional complexity of environmental challenges while fostering a sense of agency and connection.

The Climate Emotions Wheel



The Climate Mental Health Network (2024) developed the Climate Emotions Wheel based on the work of Panu Pihkala (2022) *Toward a Taxonomy of Climate Emotions*. The wheel visually displays the various climate emotions with four major categories: anger, sadness, fear, and positivity. It is a useful tool for identifying and understanding a range of emotions and is the most widely used tool for identifying and starting discussions on climate emotions.

For more on the Climate Emotions Wheel and related activities:

- [Climate Emotions Wheel Downloadable](#) (Climate Mental Health Network, 2024)
 - Available in over 25+ languages.
- [A Guide to Climate Emotions](#) (Climate Mental Health Network, 2024)
 - Comprehensive resource explaining the various climate emotions, along with guiding questions to consider in discussions around climate emotions.
- [The Emotions Wheel – Teacher Guide](#) (CIRES & Climate Mental Health Network)
 - An activity with the Climate Emotions Wheel suitable for all ages.
- [Eco-Emotions Lending Library Game \(North Bay Parry Sound District Health Unit\)](#)
 - An activity designed for grades 9-12 that uses the Climate Emotions Wheel to create space to express eco-emotions and create community among students.
 - Suitable for Health, Science, or Language classes.
- [Lesson Plan: Writing About Eco/Climate Emotions and Concerns \(Ford, 2023; Climate Mental Health Network\)](#)
 - A lesson plan for grades 9-12 that uses creative writing and discussion to explore eco/climate emotions and environmental issues.
 - Suitable for English, Social Sciences, and Science classes.

Recommendations for Educators

- Educators should examine their climate emotions and biases to understand how they might influence their teaching. Engage in professional development or peer discussions about eco-anxiety to build personal resilience and confidence.
 - **K-2:** Reflect on how your tone and language convey emotions to young children. Simplify complex topics to maintain a sense of wonder about nature.
 - **3-6:** Acknowledge your emotions when discussing environmental changes, modeling openness and vulnerability.
 - **7-12:** Share personal reflections on climate emotions to inspire critical discussions and build trust with older students.
- Validate, affirm, and recognize the emotions students experience, whether anxiety, sadness, hope, or anger. Acknowledge these feelings as normal and meaningful.
 - **K-2:** Use simple language like, "It's okay to feel worried about the Earth; it shows you care."
 - **3-6:** Introduce basic emotional literacy tools, such as an "emotion check-in" chart, to help students articulate feelings. (Sample: [Feeling Garden chart](#)).

- **7-12:** Foster deeper discussions about the spectrum of climate emotions and their significance using frameworks like the [Climate Emotions Wheel](#).
- **Create safe and supportive spaces for students to share and process their emotions.**
 - **K-2:** Encourage sharing through storytelling or drawing about how students feel when they think about nature or the environment.
 - **3-6:** Use structured group discussions or journaling prompts to help students explore their eco-emotions.
 - **7-12:** Facilitate open forums or peer support circles where students can express their emotions and connect with others.
- **Be honest about your own feelings regarding climate issues, modeling vulnerability and authenticity to help normalize complex emotions.**
 - **K-2:** Share age-appropriate personal anecdotes, like feeling sad about a polluted park but excited to clean it up.
 - **3-6:** Talk about times when you felt uncertain about the environment but found ways to take action.
 - **7-12:** Engage in candid discussions about balancing concern and hope in your own life.
- **Develop and share resources, such as booklets, videos, or websites, offering strategies to manage negative climate emotions, such as using [Climate Change Distress practical strategies](#) as a bookmark.**
 - **K-2:** Introduce simple breathing exercises or calming nature walks.
 - **3-6:** Share kid-friendly resources on how to feel empowered in small, everyday actions for the environment.
 - **7-12:** Provide access to articles, apps, and helplines tailored to youth experiencing eco-anxiety.
- **Incorporate activities that engage students physically, emotionally, and creatively.**
 - **K-3:** Use arts and crafts to depict favorite animals or plants and their habitats.
 - **4-6:** Plan outdoor nature walks, journaling exercises, or group art projects to foster a sense of connection with the environment.
 - **7-12:** Introduce methods like participatory theater, videography, or environmental poetry to explore complex emotions and solutions.
- **Help students focus on actions they can take individually and as a group to address climate challenges.**

- **K-2:** Encourage simple actions like recycling or planting a garden.
- **3-6:** Organize group projects, such as creating posters about sustainability or writing letters to local leaders.
- **7-12:** Guide students in designing and implementing larger-scale projects, like community cleanups or advocacy campaigns such as [eCards](#).
- **Balance discussions about climate issues with activities that highlight joy, hope, and the meaningfulness of collective efforts.**
 - **K-3:** Celebrate small environmental victories with storytelling or songs.
 - **4-6:** Highlight inspiring stories of youth activism and environmental restoration.
 - **7-12:** Discuss global success stories and invite local environmental leaders to share their work.
- **Emphasize art and storytelling throughout all grades as powerful tools for processing emotions and envisioning positive change. These approaches foster creativity, hope, and connection while empowering students to express their unique perspectives.**

References

- ¹ Ann Sanson and Marco Bellemo, "Children and Youth in the Climate Crisis," *BJPsych Bulletin* 45, no. 4 (2021): 205–9, <https://doi.org/10.1192/bjb.2021.16>.
- ² APHA, "Climate Changes Health: Vulnerable Populations," 2023, <https://www.apha.org/topics-and-issues/climate-change/vulnerable-populations>.
- ³ Lori Peek, "Children and Disasters: Understanding Vulnerability, Developing Capacities, and Promoting Resilience — An Introduction," *Children, Youth and Environments* 18, no. 1 (2008): 1–29, JSTOR.
- ⁴ Sanson and Bellemo, "Children and Youth in the Climate Crisis."
- ⁵ Lindsay Galway and Ellen Field, "Climate Emotions and Anxiety among Young People in Canada: A National Survey and Call to Action," *The Journal of Climate Change and Health* 9 (2023): 100204, <https://doi.org/10.1016/j.joclim.2023.100204>.
- ⁶ C. Hickman, "We Need to (Find a Way to) Talk about ... Eco-Anxiety," *Journal of Social Work Practice* 34 (2020): 411–24, <https://doi.org/10.1080/02650533.2020.1844166>.
- ⁷ Galway and Field, "Climate Emotions and Anxiety among Young People in Canada: A National Survey and Call to Action."
- ⁸ Laura B. Cole and Elke Altenburger, "Framing the Teaching Green Building: Environmental Education through Multiple Channels in the School Environment," *Environmental Education Research* 25, no. 11 (2019): 1654–73, <https://doi.org/10.1080/13504622.2017.1398817>.
- ⁹ Charlotte A. Jones and Aidan Davison, "Disempowering Emotions: The Role of Educational Experiences in Social Responses to Climate Change," *Geoforum* 118 (2021): 190–200, <https://doi.org/10.1016/j.geoforum.2020.11.006>.
- ¹⁰ Galway and Field, "Climate Emotions and Anxiety among Young People in Canada: A National Survey and Call to Action."
- ¹¹ Jenn Stevens, Pamela Schwartzberg, and Karen Acton, *From Awareness to Action: Canadians on Climate Change and Education (Learning for a Sustainable Future, 2025)*, https://lsf-ist.ca/wp-content/uploads/2025-National-Report_c.pdf.
- ¹² William Finnegan and Cathy d'Abreu, "The Hope Wheel: A Model to Enable Hope-Based Pedagogy in Climate Change Education," *Frontiers in Psychology* 15 (March 2024), <https://doi.org/10.3389/fpsyg.2024.1347392>.
- ¹³ Paul Howard-Jones, David Sands, Justin Dillon, and Finnian Fenton-Jones, "The Views of Teachers in England on an Action-Oriented Climate Change Curriculum," *Environmental Education Research* 27, no. 11 (2021): 1660–80, <https://doi.org/10.1080/13504622.2021.1937576>.
- ¹⁴ David Rousell and Amy Cutter-Mackenzie-Knowles, "A Systematic Review of Climate Change Education: Giving Children and Young People a 'Voice' and a 'Hand' in Redressing Climate Change," *Children's Geographies* 18, no. 2 (2020): 191–208, <https://doi.org/10.1080/14733285.2019.1614532>.
- ¹⁵ Jones and Davison, "Disempowering Emotions: The Role of Educational Experiences in Social Responses to Climate Change."
- ¹⁶ Galway and Field, "Climate Emotions and Anxiety among Young People in Canada: A National Survey and Call to Action."
- ¹⁷ Michalina Marczak, Małgorzata Winkowska, Katia Chaton-Østlie, Roxanna Morote Rios, and Christian A. Klöckner, "'When I Say I'm Depressed, It's like Anger.' An Exploration of the Emotional Landscape of Climate Change Concern in Norway and Its Psychological, Social and

Political Implications,” *Emotion, Space and Society* 46 (2023): 100939, <https://doi.org/10.1016/j.emospa.2023.100939>.

¹⁸ Panu Pihkala, “Toward a Taxonomy of Climate Emotions,” *Frontiers in Climate*, ahead of print, January 14, 2022, <https://doi.org/10.3389/FCLIM.2021.738154>.

¹⁹ Caroline Hickman, Elizabeth Marks, Panu Pihkala, et al., *Climate Anxiety in Children and Young People and Their Beliefs about Government Responses to Climate Change: A Global Survey*, 2021, [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3).

²⁰ Emma L. Lawrance, Rhiannon Thompson, Jessica Newberry Le Vay, Lisa Page, and Neil Jennings, “The Impact of Climate Change on Mental Health and Emotional Wellbeing: A Narrative Review of Current Evidence, and Its Implications,” *International Review of Psychiatry* 34, no. 5 (2022): 443–98, <https://doi.org/10.1080/09540261.2022.2128725>.

²¹ S. Clayton, “Climate Anxiety: Psychological Responses to Climate Change,” *Journal of Anxiety Disorders* 74 (2020): 102263, <https://doi.org/10.1016/j.janxdis.2020.102263>.

²² C. Ogunbode, Rouven Doran, D. Hanss, et al., “Climate Anxiety, Wellbeing and pro-Environmental Action: Correlates of Negative Emotional Responses to Climate Change in 32 Countries,” *Journal of Environmental Psychology* null (2022): null, <https://doi.org/10.1016/j.jenvp.2022.101887>.

²³ Susan Clayton, Christie Manning, Kirra Krygsman, and Meighen Speiser, *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance* (American Psychological Association, and ecoAmerica, 2017), <https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf>.

²⁴ Isaias Hernandez, “What Is the Climate Scale?,” Isaias Hernandez | Environmentalist & Storyteller, September 17, 2020, <https://queerbrownvegan.com/what-is-the-climate-scale/>.

²⁵ Samantha K. Stanley, Teaghan L. Hogg, Zoe Leviston, and Iain Walker, “From Anger to Action: Differential Impacts of Eco-Anxiety, Eco-Depression, and Eco-Anger on Climate Action and Wellbeing,” *The Journal of Climate Change and Health* 1 (March 2021): 100003, <https://doi.org/10.1016/j.joclim.2021.100003>.

²⁶ Ágoston Csilla, Urbán Róbert, Nagy Bence, et al., “The Psychological Consequences of the Ecological Crisis: Three New Questionnaires to Assess Eco-Anxiety, Eco-Guilt, and Ecological Grief,” *Climate Risk Management* 37, no. 100441 (2022), <https://doi.org/10.1016/j.crm.2022.100441>.

²⁷ TEDxSydney - Glenn Albrecht - Environment Change, Distress & Human Emotion Solastalgia, directed by TEDx Talks, 2010, <https://www.youtube.com/watch?v=-GUGW8rOpLY>.

²⁸ Csilla Ágoston, Benedek Csaba, Bence Nagy, et al., “Identifying Types of Eco-Anxiety, Eco-Guilt, Eco-Grief, and Eco-Coping in a Climate-Sensitive Population: A Qualitative Study,” *International Journal of Environmental Research and Public Health* 19, no. 4 (2022): 4, <https://doi.org/10.3390/ijerph19042461>.

²⁹ Glenn Albrecht, “Chronic Environmental Change: Emerging ‘Psychoterratic’ Syndromes,” in *Climate Change and Human Well-Being: Global Challenges and Opportunities*, ed. Inka Weissbecker, *International and Cultural Psychology* (Springer, 2011), https://doi.org/10.1007/978-1-4419-9742-5_3.

³⁰ Judy Wu, *Programs and Interventions to Address Climate Grief: A Case Studies Report* (Fraser Basin Council, 2021), https://sustain.ubc.ca/sites/default/files/2020-077a_Programs%20to%20Address%20Climate%20Grief_Wu.pdf.

³¹ Finnegan and d’Abreu, “The Hope Wheel.”

- ³² Barbara L. Fredrickson, "The Role of Positive Emotions in Positive Psychology: The Broaden-and-Build Theory of Positive Emotions," *American Psychologist* 56, no. 3 (2001): 218–26, <https://doi.org/10.1037/0003-066X.56.3.218>.
- ³³ Maria Ojala, "Hope and Climate Change: The Importance of Hope for Environmental Engagement among Young People," *Environmental Education Research* 18, no. 5 (2012): 625–42, <https://doi.org/10.1080/13504622.2011.637157>.
- ³⁴ Pihkala, "Toward a Taxonomy of Climate Emotions."
- ³⁵ Claudia R Schneider, Lisa Zaval, and Ezra M Markowitz, "Positive Emotions and Climate Change," *Current Opinion in Behavioral Sciences, Human Response to Climate Change: From Neurons to Collective Action*, vol. 42 (December 2021): 114–20, <https://doi.org/10.1016/j.cobeha.2021.04.009>.
- ³⁶ Stanley et al., "From Anger to Action."
- ³⁷ Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We're in without Going Crazy* (New World Library, 2012).
- ³⁸ Matthew T. Ballew, Sri Saahitya Uppalapati, Teresa Myers, et al., "Climate Change Psychological Distress Is Associated with Increased Collective Climate Action in the U.S.," *Npj Climate Action* 3, no. 1 (2024): 1–10, <https://doi.org/10.1038/s44168-024-00172-8>.
- ³⁹ Hickman et al., *Climate Anxiety in Children and Young People and Their Beliefs about Government Responses to Climate Change: A Global Survey*.
- ⁴⁰ Finnegan and d'Abreu, "The Hope Wheel."
- ⁴¹ W. Finnegan, "Educating for Hope and Action Competence: A Study of Secondary School Students and Teachers in England," *Environmental Education Research*, ahead of print, September 11, 2022, <https://doi.org/10.1080/13504622.2022.2120963>.
- ⁴² Jessica G. Fritze, Grant A. Blashki, Susie Burke, and John Wiseman, "Hope, Despair and Transformation: Climate Change and the Promotion of Mental Health and Wellbeing," *International Journal of Mental Health Systems* 2, no. 1 (2008): 13, <https://doi.org/10.1186/1752-4458-2-13>.
- ⁴³ H. Frumkin, Sophie Cook, J. Dobson, and K. Abbasi, "Mobilising Hope to Overcome Climate Despair," *British Medical Journal*, ahead of print, October 12, 2022, <https://doi.org/10.1136/BMJ.O2411>.
- ⁴⁴ Nathaniel Geiger, Janet K. Swim, Karen Gasper, John Fraser, and Kate Flinner, "How Do I Feel When I Think about Taking Action? Hope and Boredom, Not Anxiety and Helplessness, Predict Intentions to Take Climate Action," *Journal of Environmental Psychology* 76 (August 2021): 101649, <https://doi.org/10.1016/j.jenvp.2021.101649>.
- ⁴⁵ Hickman, "We Need to (Find a Way to) Talk about ... Eco-Anxiety."
- ⁴⁶ Catherine Malboeuf-Hurtubise, Terra Léger-Goodes, Catherine M. Herba, Nadia Bélanger, Jonathan Smith, and Elizabeth Marks, "Meaning Making and Fostering Radical Hope: Applying Positive Psychology to Eco-Anxiety Research in Youth," *Frontiers in Child and Adolescent Psychiatry* 3 (February 2024): 1296446, <https://doi.org/10.3389/frcha.2024.1296446>.
- ⁴⁷ K. Nairn, "Learning from Young People Engaged in Climate Activism: The Potential of Collectivizing Despair and Hope," *YOUNG*, ahead of print, September 12, 2019, <https://doi.org/10.1177/1103308818817603>.
- ⁴⁸ M. Ojala, "How Do Children, Adolescents, and Young Adults Relate to Climate Change? Implications for Developmental Psychology," *European Journal of Developmental Psychology*, ahead of print, August 3, 2022, <https://doi.org/10.1080/17405629.2022.2108396>.

- ⁴⁹ Emily K. Olsen, Danielle F. Lawson, Lucy R. McClain, and Julia D. Plummer, "Heads, Hearts, and Hands: A Systematic Review of Empirical Studies about Eco/Climate Anxiety and Environmental Education," *Environmental Education Research* 0, no. 0 (n.d.): 1–28, <https://doi.org/10.1080/13504622.2024.2315572>.
- ⁵⁰ Blanche Verlie, this link will open in a new tab Link to external site, Emily Clark, Tamara Jarrett, and Emma Supriyono, "Educators' Experiences and Strategies for Responding to Ecological Distress," Article, *Australian Journal of Environmental Education* (East Lismore, United Kingdom) 37, no. 2 (2021): 132–46, <https://doi.org/10.1017/ae.2020.34>.
- ⁵¹ Christine Wamsler, Johannes Brossmann, Heidi Hendersson, Rakel Kristjansdottir, Colin McDonald, and Phil Scarampi, "Mindfulness in Sustainability Science, Practice, and Teaching," *Sustainability Science* 13, no. 1 (2018): 143–62, <https://doi.org/10.1007/s11625-017-0428-2>.
- ⁵² Joanna Ying Na Guan, Ethan Dutcher, Philippe Goldin, et al., "The Role of Mindfulness in Moderating Climate Distress During Wildfire Season," SSRN Scholarly Paper 4589850 (Social Science Research Network, October 4, 2023), <https://doi.org/10.2139/ssrn.4589850>.
- ⁵³ Vincent Kim Seng Oh, Abdullah Sarwar, and Niaz Pervez, "The Study of Mindfulness as an Intervening Factor for Enhanced Psychological Well-Being in Building the Level of Resilience," *Frontiers in Psychology* 13 (December 2022): 1056834, <https://doi.org/10.3389/fpsyg.2022.1056834>.
- ⁵⁴ Christine Wamsler, "Mind the Gap: The Role of Mindfulness in Adapting to Increasing Risk and Climate Change," *Sustainability Science* 13, no. 4 (2018): 1121–35, <https://doi.org/10.1007/s11625-017-0524-3>.
- ⁵⁵ Anna Dysart and Samantha M. Harden, "Mindfulness and Understanding of Self-Care for Leaders of Extension: Promoting Well-Being for Health Educators and Their Clients," *Frontiers in Public Health* 10 (May 2022): 862366, <https://doi.org/10.3389/fpubh.2022.862366>.
- ⁵⁶ Ojala, "Hope and Climate Change."
- ⁵⁷ Wamsler, "Mind the Gap."
- ⁵⁸ Olsen et al., "Heads, Hearts, and Hands."
- ⁵⁹ Anne Raine, "Literary Reading, Mindfulness, and Climate Justice: An Experiment in Contemplative Ecocritical Pedagogy," in *Contemplative Practices and Anti-Oppressive Pedagogies for Higher Education* (Routledge, 2022).
- ⁶⁰ Robin Wall Kimmerer, Monique Gray Smith, and Nicole Neidhardt, *Braiding Sweetgrass for Young Adults: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* (Zest Books, 2022).
- ⁶¹ Alexandros Argyriadis, Emmanuel Kopanakis, Panagiotis Koutras, et al., "The Impact of Outdoor in Nature Mindfulness on the Mental Well-Being of Children and Adolescents. A Mental Health and Cross-Cultural Approach," *Materia Socio-Medica* 36, no. 1 (2024): 73–76, <https://doi.org/10.5455/msm.2024.36.73-76>.
- ⁶² Terhi Arola, Marianne Aulake, Anna Ott, et al., "The Impacts of Nature Connectedness on Children's Well-Being: Systematic Literature Review," *Journal of Environmental Psychology* 85 (2023): 101913, <https://doi.org/10.1016/j.jenvp.2022.101913>.
- ⁶³ Louise Chawla, "Childhood Nature Connection and Constructive Hope: A Review of Research on Connecting with Nature and Coping with Environmental Loss," *People and Nature* 2, no. 3 (2020): 619–42, <https://doi.org/10.1002/pan3.10128>.
- ⁶⁴ Duce Jean-Berluce, "Creative Expression and Mental Health," *Journal of Creativity* 34, no. 2 (2024): 100083, <https://doi.org/10.1016/j.joc.2024.100083>.

- ⁶⁵ Malboeuf-Hurtubise et al., “Meaning Making and Fostering Radical Hope.”
- ⁶⁶ Benjamin Bolden, “Arts Activities Can Provoke Empathy and Inspire Youth Action on Urgent UN Global Goals,” *The Conversation*, May 15, 2023, <http://theconversation.com/arts-activities-can-provoke-empathy-and-inspire-youth-action-on-urgent-un-global-goals-202297>.
- ⁶⁷ Asvina Sunassee, Chandradeo Bokhoree, and Andrew Patrizio, “Students’ Empathy for the Environment through Eco-Art Place-Based Education: A Review,” *Ecologies* 2, no. 2 (2021): 214–47, <https://doi.org/10.3390/ecologies2020013>.
- ⁶⁸ Margaret Gearty, “Beyond You and Me: Stories for Collective Action and Learning? Perspectives from an Action Research Project,” *Action Learning: Research and Practice* 12, no. 2 (2015): 146–65, <https://doi.org/10.1080/14767333.2015.1005572>.
- ⁶⁹ Finnegan, “Educating for Hope and Action Competence: A Study of Secondary School Students and Teachers in England.”
- ⁷⁰ Andrea Whiteley, Angie Chiang, and Edna Einsiedel, “Climate Change Imaginaries? Examining Expectation Narratives in Cli-Fi Novels,” *Bulletin of Science, Technology & Society* 36, no. 1 (2016): 28–37, <https://doi.org/10.1177/0270467615622845>.
- ⁷¹ Matthew Tegelberg, “Finding Hope, Resilience and Imagining Ways Forward through Climate Fiction,” *Journal of Environmental Media* 4, no. 1 (2023): 95–99, https://doi.org/10.1386/jem_00099_1.
- ⁷² William Finnegan, ‘It’s Beautiful, Living without Fear That the World Will End Soon’ – Digital Storytelling, Climate Futures, and Young People in the UK and Ireland, 2022, <https://doi.org/10.1080/14733285.2022.2153329>.
- ⁷³ Jacqueline Francis, Tan-Chyuan Chin, and Dianne Vella-Brodrick, “Examining Emotional Literacy Development Using a Brief On-Line Positive Psychology Intervention with Primary School Children,” *International Journal of Environmental Research and Public Health* 17, no. 20 (2020): 7612, <https://doi.org/10.3390/ijerph17207612>.
- ⁷⁴ Jones and Davison, “Disempowering Emotions: The Role of Educational Experiences in Social Responses to Climate Change.”
- ⁷⁵ Alison Waterhouse, *Emotional Literacy: Supporting Emotional Health and Wellbeing in School* (Routledge, 2019), <https://doi.org/10.4324/9780429428098>.
- ⁷⁶ Esther Mesman, Annabel Vreeker, and Manon Hillegers, “Resilience and Mental Health in Children and Adolescents: An Update of the Recent Literature and Future Directions,” *Current Opinion in Psychiatry* 34, no. 6 (2021): 586–92, <https://doi.org/10.1097/YCO.0000000000000741>.
- ⁷⁷ Panu Pihkala, “Eco-Anxiety and Environmental Education,” *Sustainability* 12, no. 23 (2020): 23, <https://doi.org/10.3390/su122310149>.