Climate Literacy in Education

Knowing Land through Love

Seven Steps for Contemplative Outdoor Engagement

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Abstract

This article describes a seven-step process for offering contemplative outdoor experiences for students. Contemplative outdoor engagements are those experiences and practices that ask humans to move slowly through nature to foster introspection, attention to details, and deep gratitude for our earth-kin. Contemplative outdoor engagements include practices like forest therapy, forest bathing, or mindful outdoor engagements, and they can be done individually or within group settings, guided or alone. We propose that these activities can support the development of climate literacy, which depends on providing students with opportunities to form meaningful connections with the more-than-human world.

Keywords

contemplative outdoor engagements, forest therapy, forest bathing, climate literacy

Introduction: Climate Tales in Translation

Climate literacy is more than just an understanding of science or data, but embracing responsibility to the Earth, developing aligned cultural values to cherish our earth-kin, and an ongoing relationship with our local land and place. We offer that climate literacy requires opportunities for students to build relationships with the natural world, recognizing environmental activist Wendell Berry's (2000) belief that "we love what we particularly know." In positing a knowledge built through love, we learn by 1) respecting the integrity of the other, 2) developing gentleness, 3) moving away from objective knowledge to intimate attention, 4) engaging vulnerable practices of unknowing, and 5) seeking co-transformative experiences (Zajonc, 2006). When we choose to know the natural world through love, we develop the values of climate literacy that center living in reciprocity with the more-than-human world (Kimmerer, 2013). While there are many ways educators might incorporate climate literacy into their curriculum, we look to contemplative outdoor engagements as one such pathway. We draw from literature and practices on forest therapy, forest bathing, and mindful outdoor engagements to propose contemplative outdoor engagements as experiences and practices asking humans to move slowly through nature to foster introspection, attention, and deep gratitude for our earth-kin (Bressane, et al., 2025; Gobster, et al., 2022; Kim & Shin, 2021). In our framework, contemplative outdoor engagements recognize the natural elements in any environment – a forest or a city – and invite humans to attend to nature slowly, in multi-sensory ways, and with deep attention. These activities can be done individually or within group settings, guided or alone. Research continues to show the importance of such interventions with children and adolescents to foster deeper connection with nature that cultivates eco-advocacy as well as the impacts for positive mental health outcomes (Madera, et al., 2025; McEwan, et al., 2022). Drawing from frameworks by the Association of Nature and Forest Therapy and the Kripalu School of Mindful Outdoor Leadership, we offer seven steps for educators to guide students in contemplative outdoor engagements.

Guiding Contemplative Outdoor Engagements

Contemplative outdoor engagements can be done across age groups, space, and time, with appropriate planning. While all age groups can participate, we encourage educators to consider adjusting the following seven steps in developmentally appropriate ways for their students. These engagements can also be done in a variety of places, including on school grounds, local, or on field trips outside. Similarly, these engagements can be embedded within daily classroom practices, during a particular

unit, or as an extracurricular activity. We have provided curricular connections for each step. For sitting exercises, educators can bring along seat pads, blankets, or cut up yoga mats that students can use individually. We encourage educators to use invitational language within each of the steps, supporting student autonomy to decide whether or how deeply they want to enter into the practices. Finally, before beginning the engagement, educators should stress the importance of silence throughout the engagement, which may involve silencing phones or leaving them altogether.

Step 1: The Story of Place

The goal of this step is to introduce students to the particularities of the place where they are doing contemplative outdoor engagements. This can include the geological history, the ancestral Indigenous caretakers, recent human history, the types of trees and birds students might see, and more. If our ultimate goal is to hold space for students to build a relationship to the earth, we can think about this step as the introduction that begins to ground students in attention to the details. For example, a middle school educator introducing a unit on statehood or a unit on ecosystems can use this practice to ground social studies and science as interdisciplinary. Students might journal across each subject about how the story of place connects to their current lessons.

Step 2: Movement Warm-Ups

The goal of this step is to help students warm up their body through gentle movement, and, further, to become comfortable with movement in nature. Movement warm-ups can include simple stretches or yoga poses. Movement can also incorporate or mirror what we see in our more-than-human world. For example, an early childhood educator might ask students what nature they see or feel: the wind, a tree, a flower. Teachers might then invite students to model what movement they see: spin around like the wind, sway your arms like the trees, bloom up like a flower. Or a physical education teacher might emphasize this step to teach the relationality of human bodies to the world around us.

Step 3: Deep Breaths

The goal of this step is to help students regulate and become more attentive to their breaths and become more settled in the present moment. Deep breaths also facilitate

the body moving into a parasympathetic – or rest and relaxation – state. Use the following steps to help guide students' breathing:

- Encourage students to find a position in which they are firmly grounded; if standing, their feet should be hip width apart.
- Invite students to either lower their gaze or close their eyes, and place one hand on their belly and the other on their heart.
- Guide students to take a long, gentle inhale through the nose, and then have them slowly exhale through pursed lips.
- Allow students to repeat this process at their own pace. Students should aim for 4-6 breaths over the course of one minute.

Step 4: Grounding the Senses

This step invites students to engage with all five of their senses and helps them to experience the world in more attentive, mindful ways. It also prepares students for later invitations. After Step 3, students are invited to remain with their eyes closed, or continue with a soft, downward gaze. Move through the following prompts slowly; pause to allow students to contemplate each question:

- Hearing: What is the closest sound you hear? What sound is furthest away?
- Taste: Imagine you are sucking in air through your mouth like a straw. What do you taste? How does the air taste on your tongue?
- Touch: Notice the way the air touches your cheeks or exposed hands. If you feel comfortable, touch the ground or a tree near you - what textures do you feel?
- Smell: Turn your head to the left. What do you smell? Turn your head gently to the right. Notice if you smell anything else.
- Sight: When you open your eyes, imagine you are seeing the world for the first time, and the world is seeing you. What do you notice? What are your eyes drawn to?

After the contemplative outdoor engagement, students can refer back to this exercise within their curriculum engagement. For example, a high school classroom working in literary devices might draw from sensory engagements to create multi-sensory metaphors, similes, or analogies in their work.

Step 5: Encounter Invitations

The goal of invitations is to offer students opportunities to engage in slow, attentive, and multi-sensory ways with the more-than-human world. The key is giving enough time for students to settle into the invitation. We recommend spending 8-10 minutes at

the minimum for each invitation, recognizing that it's better to go deeply into one invitation than multiple shorter ones. Below, we offer examples of invitations that we have found most enjoyable.

- Making Friends with a Tree: Invite students to use their internal senses, or intuition, to find a tree they feel drawn to, or one their body gravitates toward and feels comfortable nearby. Once they've chosen their tree, encourage them to introduce themselves. Students can sit near, lean against, walk around, or lie near the tree. Encourage students to share their thoughts with the tree – who are often considered non-judgmental, and patient listeners. Encourage them to listen for any sense of response. Set a clear area boundary where students can find their tree.
- Slow Walking with Magnifying Glass: Pass out small magnifying glasses to students. Invite them to walk slowly and silently to examine whatever piques their interest with the magnifying glass. You can encourage students to simply notice what they are noticing. You can model a slow exploration pace as the instructor or ask a student to do this. Ensure students stay within a bounded space and share where you will meet them at the end of the invitation.
- Hiking with Hands: If you don't have magnifying glasses available, hiking with hands also allows students to walk slowly and more deeply engage their senses. Utilizing a path that is safe for touch (address any poison ivy, poison oak, etc. elements), invite students to move slowly and quietly while gently touching leaves, trees, moss, dirt, etc. You might ask them to find something: hard, soft, thick, thin, moist, dry, papery, rubbery, etc. You can set the slow pace as the instructor or ask a student to do this - ask students to not move ahead and set a clear boundary on where you will meet at the end of the invitation.

While these are some of our favorites, there are hundreds of invitations you can try - you can do an internet search for forest bathing exercises or you can look to Clifford's (2018) Your Guide to Forest Bathing for additional invitations. These invitations can also support classwork: creating poems with descriptive language in a literature or language arts class, reflecting on observations for science, creating real-world math problems, or gathering inspiration for an art class.

Step 6: Sharing Circles

The purpose of sharing circles is to offer time for absolute listening and reflection. Using a simple prompt, students can share their reflections on the previous invitations

in any way that feels comfortable for them. This practice of listening encourages us to consider how we can extend the more-than-human world into our circle of listening.

- Students also have the autonomy to not share, as sharing silence can be a good practice, too.
- After any invitation, form a small circle with the students.
- Designate a sharing piece for the sharing circle – this could be a stick, a crystal, a rock – which will be passed around the circle.
- Present the guiding principles of the sharing circles: only the person with the sharing piece can speak; speak from the heart and in a way that is most comfortable (i.e., through silence, through a language other than English); listen from the heart and without judgement or any reactions to the speaker.
- Invite students to share an answer to the question "What are you noticing?" passing the sharing piece to the next person in the circle once finished.

As an educator, hold space for each student, being careful not to respond, affirm or offer reactions to student responses. At the end of the entire contemplative outdoor engagement session, you might consider changing the question and inviting students to share "What would you like to say to feel complete today?"

Step 7: Final Gratitudes

After the last invitation, invite students to do one final share circle. Instead of sharing what they are noticing, this time, students can share what they are thankful for. Like we do with share circles, we have each students share one at a time, without interruption and without conversation so each person can share without judgment and interruption. Utilize the talking stick (or rock or pinecone) here!

If you'd like, you can include sharing a small snack such as tea or lemonade, granola bars or fruit. Even water and some crackers can make for a nice, shared wrap-up! If you choose to include a snack for the gratitude circle, we recommend offering a sip or a cup to the earth first in gratitude for all our kin share with us.

Conclusion

Contemplative outdoor engagements can be a great way to help students find connection with the more-than-human world through slow attention, engaging the senses, and sharing with others about their experiences. These practices can also enrich curricular engagements, grounding students' academic work in real-world implications. In this grounding, students not only build connections with the more-than-human world, but they understand the connections their education has to the more-than-human-world, too (Madera, et al., 2025; McEwan, et al., 2022). By offering

opportunities for relational connections, students gain a literacy of care for our more-than-human kin, spurring additional literacies such as climate literacy to develop with deep roots. These literacies offer students a chance to practice reciprocity (Kimmerer, 2013): the earth cares for us, and we care for her, too.

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Ecological Empathy through Anthropomorphism

The anthropomorphism of Papa, Mama, and Baby Bear strengthens readers' emotional connection to Arctic wildlife. The bears walk upright, express human-like emotions, and live in a furnished igloo decorated with natural elements. Rather than diminishing their wildness, this blend of human and animal traits highlights their vulnerability. They simultaneously function as a family unit and as symbolic representatives of an endangered species. Scholars such as Kerslake (2016) and Burke & Copenhaver (2004) note that anthropomorphized animals help children grasp complex moral and ecological ideas. In Brett's retelling, the bears' emotional expressions and domestic spaces foster empathy, encouraging young readers to consider how climate change affects real polar bears who rely on melting and shifting ice.

Importantly, this anthropomorphic framing is reinforced visually rather than solely through the written narrative. Brett's illustrations invite readers to interpret facial expressions, body language, and domestic spaces as emotional and ecological cues. Through these visual strategies, anthropomorphism becomes a gateway to visual literacy, encouraging readers to read images as meaningful texts that communicate vulnerability, interdependence, and environmental risk.

Visual Literacy and Cultural Context: Illustrations as Ecological Narrative

The book's illustrations not only enrich the narrative but also model visual literacy. Children must interpret images to follow parallel storylines, understand character relationships, and recognize environmental cues. Through this multimodal structure, readers learn that images can function as ecological texts, conveying information about habitat, climate, and cultural practices. These visual details build an ecological narrative that complements—and sometimes exceeds—the written text.

Pedagogical Possibilities

The pedagogical value of *The Three Snow Bears* lies in its ability to bridge affective engagement with environmental understanding. Teachers can use the book across disciplines to introduce concepts of climate change, interdependence, and cultural respect. The igloo, Aloo-ki's clothing, and her sled dogs can introduce conversations about Inuit culture and Arctic lifeways. Pairing Brett's book with stories by Indigenous authors ensures cultural respect and accuracy. Students also develop empathy for species impacted by climate change when they connect emotionally with Aloo-ki and the bear family.

Using maps and photographs of the Arctic, educators can help students connect the illustrated setting to real habitats, leading to age-appropriate discussions of melting sea ice and endangered species. Art activities inspired by Brett's detailed borders—such as creating one's own ecological side panels featuring local wildlife support visual literacy and reinforce the idea of ecosystem interdependence.

By combining affective engagement, cultural respect, and ecological awareness, *The Three Snow Bears* becomes a multifaceted climate literacy resource. Furthermore, when using such texts in classrooms, teachers should incorporate authentic Indigenous voices so that students learn how traditional ecological knowledge contributes to climate resilience.

Conclusion: Storytelling as Climate Pedagogy

Jan Brett's *The Three Snow Bears* exemplifies how children's literature can integrate ecological education, cultural awareness, and visual storytelling. The book's illustrations and motifs immerse readers in a delicate Arctic ecosystem, cultivating empathy and responsibility. As climate change accelerates, retellings like Brett's remind us that stories can both reflect and reshape cultural values. Through interdisciplinary teaching and visual literacy, *The Three Snow Bears* becomes a powerful tool for nurturing early climate consciousness and encouraging children to imagine more sustainable futures.

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