

A scenic photograph of a rocky coastline. In the foreground, there are dark green evergreen trees and bushes. The middle ground shows a rugged, brownish rock formation that meets a blue body of water. White foam from waves is visible at the base of the rocks. In the background, a forested hillside is visible under a clear blue sky with a few wispy clouds.

Staging Nature: Integrating Place-based Environmental Education, Literacy, and the Performing Arts

by Regine Randall, Rebecca Edmondson, and MaryAnne Young

“Teacher, teacher, teacher, teacher, teacher!”

Such a cry is likely to get any educator’s attention—and quickly. Yet, this repetitive call is not coming from a child but, rather, an ovenbird whose common breeding territory includes Acadia National Park in Maine. In a unique collaboration supported by a regional instructional grant, teachers Rebecca Edmondson and MaryAnne Young at Conners Emerson School in Bar Harbor, Maine—the primary gateway for Acadia—developed a musical to integrate multiple elements of the state’s Kindergarten–Grade 5 curriculum while also helping children to take notice of the very special place where they live.

Creating the musical *Plant Kindness and Gather Love* gave the students at Conners Emerson, as well as the communities on Mount Desert Island, an opportunity to celebrate the 2016 centennial of Acadia National Park and the bicentennial of Maine in 2020. *Plant Kindness and Gather Love*, however, was much more than that: it served as a much-needed model for creative teaching where learning objectives incorporate important foundational skills with efforts going well beyond screens or a brick and mortar building to raise children’s awareness of the world around them.

The seed of an idea takes root

Acadia National Park draws several million visitors from across the world every year. Yet, Edmondson and Young wondered how well students at Conners Emerson really knew what was in their own backyard? Having collaborated frequently and over time to blend language arts with music, Edmondson and Young observed that this integrated approach had a consistently positive impact on student learning and engagement. Young had a regular practice of sharing books with children in which the lyrics of a song were, in fact, the entire narrative of the story. With books in hand, the students then sought out Edmondson’s help in learning the songs. Singing the text breathed new life into traditional read-alouds. With this in mind, Edmondson realized that she and Young could adapt the same approach beyond a single book or skill (e.g. alphabet learning) to create an original story about Acadia. As noted earlier, the project coincided with celebrations of the centennial of Acadia and the bicentennial of Maine but also tapped into traditional academic subjects and literacy standards. Raising awareness of the park’s natural diversity through the musical was simply one more opportunity for Edmondson and Young to amplify what could be discovered within Acadia but also a chance to join with park associates in highlighting stewardship through family-friendly conservation practices.

Centuries ago, philosophers Johann Heinrich Pestalozzi and Friedrich Froebel argued that the best education occurred when children learned with the head, heart, and hands through play (McKenna, 2010; Tracey & Morrow 2012). *Plant Kindness & Gather Love* became a manifestation, quite literally, of Unfoldment Theory where teachers provided the necessary support for the children’s play (Prochner, 2021). Moreover, Edmondson and Young believed that such a musical would help children as young as kindergarten

begin to see themselves as stewards of the earth because coming to love a place foments a desire to know and protect it (North American Association for Environmental Education [NAAEE], 2016). Despite the Herculean effort required to launch any school production, the excitement and pleasure embedded in this creative endeavor optimized learning for students and teachers alike while also forging a stronger and more memorable connection to the natural world. What makes the work unique is that their younger students did not need to wait until middle or high school to “envision knowledge” because this collaboration gave them the opportunity to be actors in sharing what they learned with a community that may or may not have known the same content (Langer, 2011).

From root to branch

Plant Kindness and Gather Love developed into a forty-minute musical with ten original songs written, arranged, and choreographed by Young and Edmondson with parts for fifteen characters. In the planning stage, Young and Edmondson brainstormed ideas for the musical with the Acadia National Park (ANP) Education Coordinator, Katie Petri, as well as other



ANP associates. The Park Service went on to provide material support for the production in the form of Junior Ranger hats. The goal of the musical was to expand the venues through which children learned environmental content specific to Acadia and Mt. Desert Island. Instructional activities that supported the production of the musical ranged from students sketching and labeling wildflowers (where they also learned about the Fibonacci sequence) to discussing and illustrating the dramatic seasonal changes in Acadia to determining the components of stewardship and encouraging that we all act upon them. Such endeavors help introduce children, especially those in kindergarten and the primary grades, to all the park has to offer since more formal outdoor education programs (e.g., Young Birder, Schoodic Adventure) often begin a bit later, typically around age ten or fourth grade.

Interest in the musical spread throughout the school and the larger community. Locally, the art teacher helped with scenery

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and displays, a local greenhouse donated flowering plants and foliage, and parents constructed costumes. To help other teachers throughout the state and New England consider similar projects, Petrie organized a teacher workshop at the Schoodic Institute at Acadia National Park based on *Plant Kindness and Gather Love* as a follow up to performances in Bar Harbor, Maine. Additional workshops on the musical were offered at the Maine Music Educators Association Conference and the Maine Environmental Education Association Conference. Most notably, a copy of *Plant Kindness and Gather Love* went to Washington DC to be placed on Senator Susan Collins' reception room table along with other children's books by Maine authors.



Making music

The songs within the musical *Plant Kindness and Gather Love* moved from broad concepts to specific ideas. In "Nature Lover," the introduction began with a simple request: step outside. Jason Mraz had expressed this same sentiment years earlier in a clever rearrangement of his smash pop hit, "I'm Yours" where, during his performance of "Outdoors" on Sesame Street, he sings about the good feeling we get when we're no longer "trapped between the walls and underneath the ceiling" (Sesame Street, 2009). Edmondson and Young took a similar approach by using song to inspire students to explore, but Acadia was the place to where children were taking a "close look or commanding view." Only through experiencing the sights, feelings, sounds, and wanderings in a place like Acadia can they promote the desire, as Jason Mraz also reminded us, that "all of nature deserves to be loved, loved, loved, loved, loved" In the musical, a "nature lover" may be one who goes on to identify birds in Acadia by their unique calls or one who takes the initiative necessary to lead for an environmentally literate citizenry as made manifest by Maine's motto of "Dirigo" ("I lead" or "I direct").

Thinking, seeing, listening, learning, dancing, singing

Plant Kindness and Gather Love integrated content to develop higher-order thinking skills in identification, comparison/contrast, mapping, synthesis, and representation. Typically, the focus on higher-order thinking characterizes learning objectives in grades six to twelve when basic academic skills are assumed to be more fully developed (Zwiers, 2004). Yet, as Johns and Lenski (2014) note, learning anything requires that we can recognize something for what it is and also know what it is not. Edmondson and Young capitalized on this principle in their musical. For instance, the tempo of the song "Beacon Bills" is allegro (brisk) and includes the calls of no less than ten birds found in the park. Children become acclimated to a "prima donna" cardinal calling "purty, purty, purty" whereas a chestnut-sided warbler is "pleased, pleased, pleased to meet cha." What is significant here is that students come to know things not through sight or seatwork alone. They can also learn by seeing what gets left behind: tracks, nests, scents, even scat! Not actually seeing but still knowing is the essence of inferential reasoning.

Another song in *Plant Kindness and Gather Love* has children singing of the wildflowers in Acadia. This scene incorporates movement because the children who play daisies, violets, bachelor buttons, British soldiers, foxgloves, and Johnny jump-ups are "dancing in the breeze" along the sea. Movement can solidify content in long-term memory, and we see this technique in teaching letters through air writing as well as during exercised where children tap out sounds or clap to count syllables (Madan & Singhal, 2012). That said, imagining that the wind off the Gulf of Maine made you sway in the same way as Queen Anne's lace can fuse children's personal expression with their connection to nature.

Children performing as flowers may be charming as well as kinesthetic, but it did not veil the very pointed message contained in the refrain. As the "flowers" came together in a true "kindergarten," they sang out "Don't pick me" over and over. Children's growing sense of the natural world develops alongside their growing sense of themselves, as well as others, in the world. By leaving flowers to bloom and go to seed, we are making a promise to those who will come upon them in the next season that they play a vital role in the park ecosystem in addition to being a pleasure we share (Harlan & Rivkin, 2008). Of course, not all plants are equal, and such a song helps elementary science teachers also discuss the concepts of invasive species such as purple loosestrife in the park.

More on reading and writing Acadia

Too often and in many schools, reading and writing activities in the primary grades are taught as discrete skills that divorce them from other content (Gabriel, 2013). With science of reading initiatives, this practice may become even more entrenched with the focus on content area reading and writing not gaining momentum until upper elementary or middle school when curriculum more often reflects scheduling constraints, staffing, or building organization rather than a pedagogical decision

(Fullan et al., 2018). Yet, the musical and what children learned about Acadia easily lead to a variety of literacy activities that keep nature and content learning at the fore. For example, children who are developing phonological awareness, an important precursor to skilled reading, can participate in activities where they see pictures of different birds (such as owl, seagull, chickadee), name the bird, and then stomp out the number of syllables they hear in the name. In a word identification lesson focusing on the onset (letter or letters making the initial consonant sound, blend, or digraph) and rime (the vowel that follows and remaining letters) of one syllable words, choosing a word from one of the songs (e.g., “pick” from the refrain “Don’t Pick Me!” in “Wildflowers of Acadia”) so that children can change the first letter(s) to form other words strongly supports decoding and spelling development (tick, quick, stick, chick, etc.). Since students are likely to have been introduced to this vocabulary, the words are easier to decode for two reasons: 1) they are within the same phonetic word family, and 2) they have become part of students’ receptive and expressive language used when learning about Acadia.

Such an activity moves from word and spelling patterns to an opportunity to record salient observations based on what happens in the park. For instance, “Tuck your pants into your socks to avoid tick bites.” Another might be “With a quick dive, a loon snatches a fish.” Or, “Adding a branch here and a little stick there, beavers keep their dam in good shape.” Finally, “Trails to Jordan, Valley Cove, and Precipice cliffs often close in the spring because peregrine falcons nest there and raise their chicks.” In another spin on word learning, the use of rhyming words such as tea, ski, and tree all contain different graphemes (ea, i, and ee) that are among the letter combinations that “spell” the long /e/ sound. Not only do such activities help children learn phonics concepts and other basic skills, but they are also introducing content specific vocabulary (loon, dam), homonyms (their, there), and usage based on context (nest as a verb). Bridging the observation skills that help children notice the macro and micro details within the natural world strengthens their ability to notice patterns and differences across multiple areas.

Speaking from my own perspective as a teacher educator, I welcome instruction that moves away from over-dependence on workbooks and commercial programs. Teachers who understand the scope and sequence of language development are poised to use any text any day to capitalize on how words work (sounds, spelling, syllables) and the ways we use words to create meaning and show what we know. Writing prompts that simply ask children to record what they see (the waves rolling in at Sand Beach), feel (wind at the top of Cadillac Mountain), or hear (the collision of water and air at Thunder Hole) are always authentic in the sense that responses can change day by day, hour by hour, or minute by minute. In terms of checking understanding of key facts or concepts, students can also complete sentence stems such as:

- Hiking in the woods means....(e.g. you might get bug bites).*
- Being a park ranger means....(e.g. you have to be good with the public).*
- Loving nature means....(e.g. you are happiest outside).*

Going to Acadia means...(e.g. you are on an island, or you could be on the Schoodic peninsula, or you are in a National Park).

Open-ended sentence stems allow children to generate many different responses with varying level of detail. Such responses can also suggest what we need to study further or better understand. It is a low-risk activity that introduces children to multiple perspectives while also enabling the teacher to identify misconceptions or misinformation (Randall & Marangell, 2018). Further, the sentence stems serve as a launch for extended writing on a self-selected topic of interest to the student. Ultimately, though, *Plant Kindness and Gather Love* went beyond interdisciplinary cross-pollination: it helped teachers understand how nature and place can re-energize lessons to improve targeted skills, expand our ideas of text to include multimodal materials beyond print (artifacts, audio, digital collections, etc.), and facilitate content learning. Historically, we know what engages learners and creates success; the joy and pleasure that went into imagining, producing, and performing *Plant Kindness and Gather Love* are the same emotions that motivate any learner to gain important skills, understand content more deeply, achieve more, and seek out new experiences wherever they are (Dewey, 1938; Duke et al., 2021; Gardner, 1999; Rosenblatt, 1938).

Show and share how to care

The musical concluded with an ode to the beauty of the park, which is undeniable and fine as far that goes, but also, more pointedly, with a call to be active in its preservation. The different songs, choreography, and even the costuming in the musical all contributed to creating the sense of wonder that comes from living in proximity to the natural world (Wilson, 1994). The score and lyrics for “Nature Lover” in *Plant Kindness and Gather Love* sets the stage by encouraging discovery, and the North American Association for Environmental Education (2016) described children as naturally inquisitive because “everything” is worth exploring

“with all of the senses” (p. 2). So, exploring is for everyone but, perhaps, it is children’s particular ability to notice “a fish, a beaver, or an otter...a little bird...a white-tailed deer” that can reignite our own interest in using natural places as tableaux for learning.



You, too, may live in an area that has of extraordinary natural beauty and diversity, is near a wonderful park, or, equally

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important, want to make wherever it is you do live more special in the eyes of children. For instance, *Last Stop Market Street* by Matt de la Pena and Christian Robinson is a children's picture book of city life where Nana helps her grandson smell the rain, watch it pool on flower petals, and be a better witness to what's beautiful in people, places, and things. With this in mind, the success of *Plant Kindness and Gather Love* may be just the right incentive for you and your colleagues to tell the "lively stories" – in any form, not just musicals – of the places and the inhabitants in your community (van Dooren, 2014).



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Rebecca Edmondson is a composer, conductor, clinician who has taught in both public and private schools in Maine and Pennsylvania for the past forty years. Her school music program was one of 12 in the country designated as a Model Music Education Program, and her writing has appeared in the American String Teacher. In addition to winning composition competitions, Rebecca was named the 2022 Maine's Hancock County Teacher of the Year. She continues to nurture the love of learning through music and developing children's books. All this has prepared her to become Liam and Finn's Grammy.



MaryAnne Young is a lifetime resident of coastal Maine. She comes from a large family tree of educators and authors. After more than 38 years as an educator MaryAnne retired from Connors Emerson School. She engages with young learners as a substitute teacher and continues to write poetry and story songs. MaryAnne is inspired by the woods, waters and wildlife that surround the place she calls home. Her most joyful lifetime achievement is being a proud Mimi to Cameron and Maya...the new generation of Nature Lovers!

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