

# Wonder

NEWSLETTER OF THE NATURE ACTION COLLABORATIVE FOR CHILDREN

Coordinated by Kirsten Haugen on behalf of NACC

## From STEM to STEAM to STREAM

by Kirsten Haugen

By now, most of us hear the word STEM and can shout, “Science! Technology! Engineering! Math!” Not long after STEM was popularized, we realized we’d left out the arts, so we added an A to give our rallying cry more STEAM. Now, more than ever, I’d like to propose turning that STEAM into a bubbling, flowing, living STREAM by adding perhaps the most important letter of all: R for relationships.

As with streams in nature, much of the action in our educational settings takes place below the surface. Each stream is an ever-changing journey that we can connect with at any point from the bank, from within its rocky bed or even as a droplet of water or wayward leaf joining the flow. What we introduce into a stream will alter its course, minutely or dramatically, for better

or worse, often far downstream. Equally so, our relationships with the children we educate and care for are formed one interaction at a time. In a cumulative way, these interactions will impact children one way or another, altering the course of their own journeys. When we prioritize relationships in education, it’s easier for our pedagogies, curricula, materials and assessments to become what they were meant to be—tools rather than priorities.

Understanding this, let’s bring relationships clearly into the flow and see what a profound impact it makes to ground our teaching and support for children in the context of really seeing children, getting curious with them and valuing their ideas. The two stories we’re sharing are, on the surface, quite different. Octavia Butler, from Nebraska, United States, explores how sharing love for and curiosity about the natural world over time allows that love and curiosity to weave itself into the very fiber of a child’s being, demonstrating that holistic, grounded learning goes beyond knowledge or skills, to impact one’s overall orientation to life. Claire Warden, from Scotland, helps us see that it is indeed possible to take a tree for a walk! More importantly, we learn that when we take children’s wildly creative ideas and queries seriously, amazing things can happen and we can form relationships, not just among children and adults, but even with inanimate objects such as trees.

With gratitude,



Kirsten Haugen



The mission of the Nature Action Collaborative for Children (NACC) is to re-connect children with the natural world by making developmentally appropriate nature education a sustaining and enriching part of the daily lives of the world’s children.

[worldforumfoundation.org/nature](http://worldforumfoundation.org/nature)

## Patterns in Nature

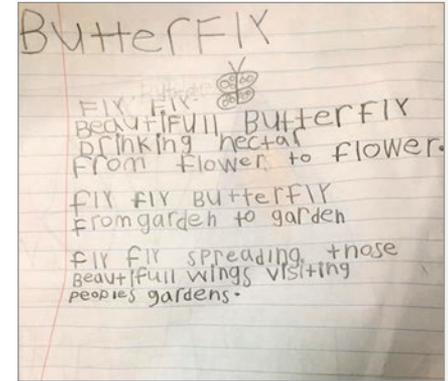
by Octavia Butler, elementary teacher  
Nebraska, United States

Children have brought me to nature, and I am beyond grateful for the impact on my life. And so, it is in that gratitude that I bring nature to children; to connect them to the natural world all around us. Exploring patterns and cycles is one of the ways my students learn about the world around them, and see their human experience reflected in nature. At the start of each season, we go out together to search for signs of the change. Many times, the first day of a season feels no different than the day before it. However, because we have intentionally become attuned to look for these small shifts, my students are noticing and naming them throughout the length of the season. Leaves change, then fall, and everything is brown. Frost comes, then snow, and slowly we grow into spring. Along with spring comes the chance to grow and care for our garden – another cycle!

Thanks to our partnership with a local organization, The Big Garden, we receive eight weeks of hour-long gardening classes. The students learn how plants grow, which ones to plant at each stage of each season, and how to build a healthy ecosystem: we learn that our garden needs friends – pollinators – to help our plants grow into delicious things to eat, and that we must respect all life that calls our garden home. In our kindergarten class last spring, we learned about pollinators through a game of pollinator tag! The “pollen” ran from flower to flower, changing them into fruit. We learned that bees, ants, and other insects are very important and that our garden can be a safe place for them to live. My students’ love for pollinators grew so large that one student was concerned that we not squish any bugs or disrupt their home by sitting on the grass at our end of year picnic.

This year, I was lucky enough to continue working with some of these same students for first grade, giving me a deeper understanding of the impact of nature experiences in children’s lives. What the students learned in kindergarten through hands-on, authentic experiences had stuck. They were now the experts, teaching their younger classmates about life cycles, the water cycle and seasons. Their understanding of nature also often showed up in the classroom, particularly in their writing. In honor of poetry month this past April, my students wrote a poem about a garden bug. The results were not

what I expected in the most pleasant of ways. One particular student blew me away with her poem. To see a simple game of pollinator tag turn into her butterfly poem a year later is a memory that will stick with me as an educator for a very long time.



## A Movable Forest

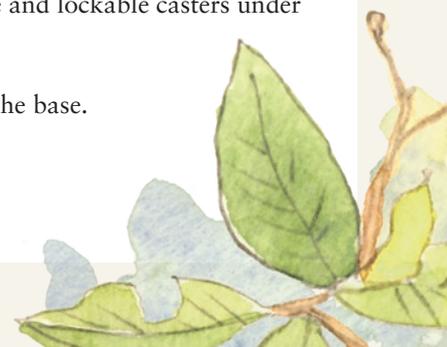
By Claire Warden, founder of the International Association of Nature Pedagogy  
Scotland, United Kingdom

Incorporating trees into urban educational settings can be challenging. The desire to include trees in our landscape led us to consult our children and gather their ideas and solutions to the challenge. As adults, we wanted to support children to engage with the stewardship and care of the trees as an integral part of their daily routine, but potential vandalism to our newly introduced trees was an issue that sadly could not be ignored.

The movable forest was born! Imagine taking a tree for a walk in the morning, giving it a drink at lunchtime and putting it to bed behind the security shutters in the evening. Adults and children alike became motivated to name them, moving beyond “silver birch tree” to Freddy and Zi. I was reminded of Rachel Carson when she spoke of children developing a love of the natural world; I doubt in the 1960s that she considered taking a tree for a walk.

Taking a tree for a walk is, of course, full of challenges. I am not someone easily deterred, and I proceeded to explore the possibilities as part of a larger inquiry with the children. The secret to our success was found in:

- Using large, strong, stable and lockable casters under a movable platform.
- Bolting the plant pots to the base.



- Ensuring the base was wide enough to make it stable.
- Choosing tree species that could survive being “containerised.”
- Building the care of the trees into the ritual and routines of the day, as they were dependent on us for water and food.

The species we worked with were native, some miniature fruit trees and blossom trees adapted for life in a pot rather than a forest setting. However, when 20 trees were placed together in the corner of the playground their impact was quite amazing. In one setting, the children gathered and grew native seeds into saplings to plant in their moveable pots. The space became a nursery for trees along with the children—an exciting and innovative version of a traditional tree nursery!

Why a movable forest and not just a plant pot with flowers?

Children often mention trees as something they really like to have in the places where they play (Jansson et al., 2016; Laaksoharju et al., 2017). Some children even say they love trees (Argent et al. 2017) as they blur the division of inanimate and animate. Trees are the architectural masters in a landscape, the more mature the better.

They provide so many things to a barren playground:

- A framework for building dens and forts
- A thing to sit beside and read a book
- Shade to play under
- Branches to climb in and lie upon (when they are mature)
- A structure to rest and settle against
- Loose parts for playing with
- Biodiversity
- Joy

When describing their movable forest, the children said they had a “thin body” (tree trunk) to hold to make it easier to move them. This desire to present trees as

objects or things actually challenges much First Nation thinking: “When we tell them [children] that a tree is not a who, but an it, we make that Maple an object; we put a barrier between us, absolving ourselves of moral responsibility and opening the door to exploitation” (Kimmerer, 2013: 57).

Trees are too often seen as something that are not connected to us, whereas in fact by having trees with us, we feel the benefit wherever we live in the world. Our experiences are affected by the climate, culture and the conditions we live in. Trees can carry a wide range of roles in our lives beyond their play affordance.

- Trees are places of refuge and solidarity; they are anchors to the past that give us a sense of the duration of time.
- Trees provide us with wood to light fires to provide warmth or cook with.
- Trees give us shelter and a space to rest under.
- Trees create meeting spaces in the community.
- Trees absorb carbon dioxide and release oxygen improving, air quality and therefore increasing carbon storage.
- Trees give us food.

The tree connects to children as something of value. Research by Laaksoharju and colleagues explored the place of trees in the identity of the space. Out of 952 photographs taken by the children, 258 depicted interactions with trees, and over 50 percent of the children’s drawings featured trees. When people were included in the drawings, they were depicted resting or playing beside a tree, sleeping in a hammock, or climbing the tree (Laaksoharju et al., 2017).

My wonderful friend Sue Houglum embraced the concept of static containerised trees, in order to transform a rooftop car park to a place for nature-based play (Warden, 2015). Trees in large containers gave children and all those looking down on the carpark a visual delight as they changed over the seasons.

We need trees for many reasons. They meet our intellectual, emotional and physical needs wherever we live on this wonderful planet. In return, ancient trees need us to offer protection and be advocates for reforestation.

Everyone can love and care for a tree whether it is in a pot or in a forest.

For a global perspective on ‘Children and Trees’ watch recordings of the International Association of Nature Pedagogy online conference (<https://mindstretchers.academy/collections/study-tours-and-events/products/ianp-online-conference-children-and-trees>).

## References

Argent, A., Vintimilla, C.D., Lee, C., & Wapenaar, K., (2017). A dialogue about place and living pedagogies: Trees, ferns, blood, children, educators, and wood cutters. *Journal of Childhoods and Pedagogies*, 1(2), 1-20.

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Warden, C. (2015) *Learning with Nature - Embedding Outdoor Practice*. London. Sage.



### Write for WONDER!

Send your “Wonder-filled” story about connecting children with the natural world to

[kirstenh@dimensionsfoundation.org](mailto:kirstenh@dimensionsfoundation.org)



**ONE WORLD**  
One Million Trees

“Together, with our children, we will plant 1,000,000 trees all around the world!”

[#onemilliontreesforchildren](https://worldforumfoundation.org/trees)  
[worldforumfoundation.org/trees](https://worldforumfoundation.org/trees)

### Would you like to join our steering committee?

Would you like to spread the word and help document planting one million trees with children around the world? Can you commit two hours per month to help? To join our steering committee, send Kirsten an email saying why and how you’ll help us make this a reality!

[kirstenh@dimensionsfoundation.org](mailto:kirstenh@dimensionsfoundation.org)

### Share Your Mud Day Stories and Photos!

Show us how you celebrated International Mud Day on June 29. Mud pies! Mud painting! Mud patting! Mud sliding! Mud squishing!

[worldforumfoundation.org/mud-day](https://worldforumfoundation.org/mud-day)

Tag your Mud Day photos and stories [#wfmudday](https://twitter.com/wfmudday) so we can all share in the fun!

