

Pathway to Stewardship: A Framework for Children and Youth

Jacob Rodenburg and Nicole Bell

As an environmental educator, it is difficult not to get discouraged. The news about the state of the environment is ever more sobering. Climate change, habitat destruction, species depletion, rising sea levels, pollution, and the list goes on. Teaching about these formidable challenges can seem daunting, overwhelming, and, at times, simply hopeless. And despite our best efforts, things just seem to be getting worse.¹

Perhaps like a reversed telescope, environmental education is being looked at in the wrong way. Instead of dealing with reactions to problems and trying to solve environmental issues as they arise, it may be worthwhile to consider what sort of citizens we believe should populate the Earth. Or, as Simeon Ogonda, a youth development leader from Kenya, asks, “Many of us often wonder what kind of planet we’re leaving behind for our children. But few ask the opposite: what kind of children are we leaving behind for our planet?” Raising environmentally engaged citizens requires more than just a few educators participating in this work. Rather, it is a collective responsibility: each of us has a stake in fostering the stewards of tomorrow.²

Increasingly, there are alarm signals that something is wrong with our children’s mental and physical health. There are rising levels of anxiety, attention-deficit/hyperactivity disorder (ADHD), and antisocial behavior in children. A sedentary, indoor lifestyle—where the average child spends more than seven hours a day in front of a glowing screen and less than twenty minutes a day in active outdoor play—is leading to unprecedented rates of childhood obesity.

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Today's children may be the first in generations not to live as long as their parents.³

At the same time, there is mounting evidence that exposure to nature while growing up reduces stress, improves physical and mental health, stimulates creativity, builds self-esteem, and encourages cooperation, collaboration, and self-regulation. In his book *Last Child in the Woods*, Richard Louv posits that children need contact with nature (or, as he calls it, “vitamin N”) as an essential part of a healthy childhood. The work of Joy Palmer, an environmental education researcher, found that regular exposure to nature is the single most important factor in fostering care and concern for the environment. But if direct contact with natural environments is critical in fostering stewardship, and children are spending more and more time indoors, then where will tomorrow's stewards come from?⁴

Charting the Path

Our children may well benefit from an environmental framework for education—centered on stewardship and anchored in Indigenous ways of knowing—that involves the entire community: parents, grandparents, educators, schools, organizations, community leaders, health professionals, municipal officials, and businesses. Such a framework is being developed based on a model from Ontario, Canada, called “The Pathway to Stewardship.”⁵

Stewardship can be defined as a sense of connection to, caring about, and responsibility for each other and the natural world around us. It involves personal action to protect and enhance the health and well-being of both natural and human communities by providing children with the right tools and experiences at every age to know, love, respect, and protect the very life systems that sustain and nurture us all. Being a steward should not imply entitlement or power or dominion over the Earth. Rather, fostering stewardship means teaching children how to become engaged citizens of and for the Earth.

The Pathway to Stewardship model emerged out of a conversation between a group of community stakeholders in Ontario, including educators, professors, Indigenous leaders, public health officials, and conservationists. They wanted to find ways in which multiple sectors could coordinate their efforts in order to promote stewardship throughout all ages and stages of a child's development. The group began by conducting broad-based research into environmental education, Indigenous teachings, child development, and the

factors promoting mental and physical health in children. They also interviewed more than seventy-five community leaders who expressed an interest in environmental issues, with the aim of exploring the formative experiences that these leaders had while growing up that helped shape their interest in the environment. The group felt that the findings emerging from both these interviews and the meta-research could provide a solid foundation for a workable stewardship framework for their community.⁶

From the research and interviews, various themes began to emerge that stem from the impacts of modern technology and culture on our relationship with the natural world. They suggest that repeated, rich experiences in the natural environment, developing a sense of place, and engaging in meaningful, age-appropriate action are all important aspects in creating an ethic of stewardship. These themes are consistent with the teachings of many of Canada's First Nations, including the Anishinaabe* (Ojibway) people who, for thousands of years, have lived in a region stretching from the Great Lakes westward to present-day Alberta and northward to Hudson's Bay. (See Box 5-1.) First Nations teachings are circular, holistic, and relevant to any grade and stage of a child's development. Stewardship has been deeply rooted in the traditional cultures of First Nations for millennia and offers insights into how to effectively raise caretakers/stewards of the environment.⁷

The Elements of Stewardship

Schools, organizations, and communities in Ontario, Canada, are working to foster future stewards by incorporating several key elements. These include: tending and caring, awe and wonder, a sense of place, interconnectedness, mentoring at all ages, time to explore and discover, and engaged action.

Tending and caring. A fundamental value in building a foundation for stewardship is the understanding that all living things—human and nonhuman—deserve to be treated with respect. In Indigenous worldviews, highly espoused values are love and humility, which create capacity and desire for harmony and well-being and the recognition that humans are a sacred part of creation. Cultivating love and humility inspires sensitivity toward others and a desire for good relations and balance with all of life.

At Edmison Heights Public School in Peterborough, Ontario, teacher Drew Monkman—with the help of the school council and student

* Anishinaabe is the word used by many Algonquin nations to name themselves in their language.

Box 5–1. Anishinaabe Teachings

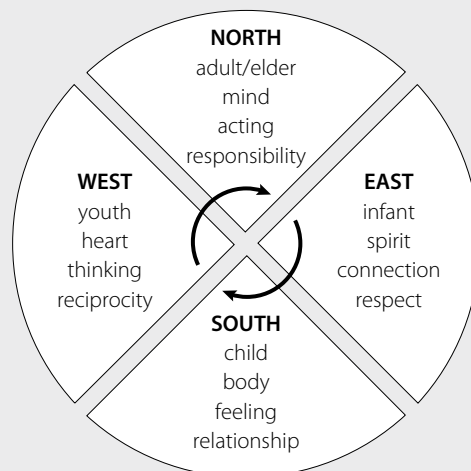
For thousands of years, the Anishinaabe First Nations have respected, learned from, cared for, and made use of their natural environment. They teach us that the connection between ourselves and the land on which we live is not a conquest but a relationship—and, like cultivating any relationship, it requires our love, time, effort, and commitment.

Anishinaabe traditional teachings share that life should be lived according to the seven original or ancestral teachings embedded within an Anishinaabe philosophy of life. These original teachings are the guiding principles for how individuals are to treat each other and can be articulated in relation to how individuals are to treat the natural environment; they include love, honesty, respect, truth, bravery wisdom, and humility.

The Anishinaabe worldview includes the concept of the individual, growing through the stages of life (infant, child, youth, adult), who has a spirit, heart, mind, and body and who therefore connects, feels, thinks, and acts—which leads to respect, relationship, reciprocity, and responsibility (4 Rs) as the individual lives on the planet with all other living things. These foundational understandings are captured in the so-called medicine wheel framework. (See Figure 5–1.)

The traditional teachings of Indigenous people, writes Native author and activist Melissa K. Nelson, “are the literal and metaphorical instructions, passed on orally from generation to generation, for how to be a good human being living in reciprocal relation

Figure 5–1. Medicine Wheel Framework of the Anishinaabe First Nations



Box 5–1. continued

with all of our seen and unseen relatives. They are natural laws, that, when ignored, have natural consequences.”

The traditional teachings “contain wisdom and imply practices that may be essential if the ecosphere is to survive human practices of consumption and exploitation,” observes political scientist Joyce Green. Attaining this place of wisdom begins with respect, or re-spect (meaning literally to “look back” or to “re-see”) to recognize the interconnections among all living things. Relationship is practiced through a conception of personal and collective responsibility to each other, to the biosphere, and to a future in which one will not be present. Reciprocity is maintained in Anishinaabe tradition by the act of giving thanks and giving back. Anishinaabe teachings articulate the need to always give thanks for anything that one is given, thus recognizing that as humans we are dependent on the natural world for our survival.

Environmental education that espouses such values ensures responsible action to those who will be living seven generations forward. As Peter Kulchyski, a Native studies professor at the University of Manitoba, explains, “[i]f there is an Aboriginal environmentalism, . . . it stems from this kind of social structural fact: in these communities there is a knowledge that great-grandchildren will see the impact on the land of decisions made today.” To live life in a sustainable way is to live respectfully in reciprocal relationships and to take responsibility, because what we do to the Earth, we do to ourselves.

Source: See endnote 7.

volunteers—established a schoolyard naturalized area, converting a former lawn into a wildflower meadow, a forest with wood-chipped trails, and a pollinator garden. To cultivate caring for the natural world, older grades teach younger grades by being “habitat helpers.” Students have created field guides and nature scavenger hunts for the area. Older grades “adopt a tree” and keep a journal of each tree’s progress throughout the school year.⁸

Awe and wonder. The engine of learning is curiosity. Curiosity, in turn, is fueled by a healthy sense of awe and wonder. As adults, we need to model a positive and healthy connection to our environment. We forget as adults how powerful language can be. If we want to cultivate a sense of wonder, we need to use the language of wonder. Words can inspire or discourage. Saying “put that down, don’t touch that, it’s dirty” sends a coded message to children that the outdoors is hazardous. From an Indigenous perspective, calling the Earth “dirty” is akin to calling one’s mother dirty, since the Earth is considered to be Mother Earth. Allowing children the opportunity to respond creatively to the environment

fosters love and respect. Using words like “wow, amazing” and “wonderful” encourage connection. For example, children at the Camp Kawartha Environment Centre, an outdoor education center in eastern Ontario, lie under the canopy of large oaks and create “poetree,” sharing inspiring words about the gifts of a forest.⁹

Sense of place. An important part of developing a sense of comfort and belonging is spending enough time outdoors in the same place to become deeply familiar and connected with it. For those who have developed a particular attachment to a place while growing up, that sense of place becomes part of their identity. For Indigenous people, this strong feeling of rootedness drives their identity as caretakers of the Earth. It is important to give children plenty of time to develop those deep attachments to place, whether that is a favorite park or a nearby green space. Overwhelmingly, the community leaders interviewed for the Pathway to Stewardship initiative cited special natural places that they grew to know and love as a very important part of their childhood.¹⁰

Interconnectedness. Children benefit from many opportunities to learn how their lives are connected to the lives of other people and other living things. We breathe the same air, drink the same water, and the food we eat contains nutrients that have been shared by many others for many years. This understanding reinforces the innate need to belong. Stewardship involves understanding that we belong to a community that extends far beyond our close friends and relatives. (See Box 5–2.) Our actions do not end in the present, and the consequences of what we do echo far into the future. The Indigenous worldview considers how the results of our actions will impact seven generations forward. At Camp Kawartha, children learn about sustainable living in action, how the materials used in building can be recycled, how energy consumption can be drastically reduced, and how we can include natural landscapes and corridors in our own backyards.¹¹

Mentoring at all ages. Both research and discussions with community leaders revealed that having access to a caring mentor is critical in developing stewardship. In the early years, this is usually a close relative—a parent or grandparent who spends time with the child, exploring together and sharing the delights of discovery. As a child grows older, the mentor is often a teacher or a youth leader who becomes a trusted and admired role model. In Indigenous communities, the role of the Elder as teacher of the children ensured the passing on of traditional knowledge to the next generation. In a unique Eco-Mentorship Certificate Program offered by Trent University and

Box 5–2. Ubuntu and Ecological Citizenship

If education in the twenty-first century is to be relevant, then it has to respond to our two interconnected planetary crises: the ecological crisis and the rapid growth of technologies that potentially threaten life on a global scale. As technologies become increasingly intertwined with humans, it is difficult to determine what “being human” now is. Education can help affirm the human not as an isolated individual but as someone embedded in the processes of life. It is here that the concept of “Ubuntu” holds particular promise.

Ubuntu means humanness. In South Africa’s Xhosa language, Ubuntu is derived from the aphorism, “Umntu ngumntu ngabanye Bantu,” which suggests that a person’s humanity is ideally expressed in relationship with others, and, in turn, individuality is truly expressed: “We are, therefore I am.” Ubuntu suggests that our moral obligation is to care for others, because when they are harmed, we are harmed. This obligation extends to all of life, since everything in the cosmos is related: when I harm nature, then I am harmed.

An education informed by Ubuntu focuses on developing a subject that is ecological rather than atomized. The philosophy of Ubuntu has been integrated in various forms in thousands of South African eco-schools, where children come to experience the oneness of self, school, community, the global community, and the environment. The eco-schools program, coordinated by the Wildlife and Environment Society of South Africa, aims to create environmental awareness and action in schools and the local community.

Vuzamanzi Primary School, in Cape Town’s informal settlement of Khayelitsha, works with community members to develop projects such as community gardens, which provide food for the undernourished and a habitat for pollinators. The school’s garden project, Ekasi Project Green, aims to move learning beyond the classroom by broadening the way that learners and community members think about food security. The classroom is not a confined space, isolated from the environment; rather, children learn in local environments so as to learn to care for them. In eco-schools, children spend time close to the land so that they learn that nature is not something that we possess, control, or inhabit, but, rather, it inhabits us.

Where Ubuntu is lived, every child belongs to the whole community and is cared for by the community. Perhaps, over time, this philosophy can help create a more sustainable relationship between people, other species, and the Earth.

—Lesley Le Grange, *Distinguished Professor of Curriculum Studies at Stellenbosch University, South Africa*

Source: See endnote 11.

Camp Kawartha, student teachers acquire the skills, strategies, and knowledge to help them deliver environmental programming in their future classrooms.¹²

Time to explore and discover. Another recurring recommendation, both in research and in feedback from community leaders, points to the benefits of

limiting screen time: television, computers, and cell phones. Too much screen time limits physical activity, impairs social and creative development, and serves to disconnect children from their natural surroundings. Community leaders recalled the “free-range” time to explore nearby nature that they were provided as children by their caregivers. Time to play, romp, and discover fosters initiative and independence, stimulates creativity, and promotes resiliency. Medicine wheel teachings of the Anishinaabe/Ojibway people share that time to explore nature with all the senses is essential to building respect and a positive relationship with the natural world. In a Forest Friday program for homeschoolers in Peterborough, Ontario, children spend the entire day—no matter what the weather—following tracks, exploring wetlands, and making forts.¹³

Engaged action. Well-meaning educators often believe that caring arises out of knowledge. The formula goes something like this: if children know more, then they will care more. There is no question that fostering knowledge about environmental issues is important. However, it turns out that teaching about environmental issues is more effective if the issue is of personal relevance and if children are provided with meaningful, age-appropriate action to improve the issue at a local level.

Everyone, no matter their age or ability, can do something positive for the environment. Tending a garden, raising butterflies, caring for a natural area, and reducing our energy consumption are just some of the simple ways that we empower our youth to make a positive impact. From an Indigenous perspective, acting with responsibility means responding with our abilities (response-ability). The idea of “agency” is key: kids can solve a problem provided they are given the right tools and strategies for their age. Every positive action leads to a sense of hope, and every bit of hope is empowering. As children grow older, they can begin to explore the idea of sustainable living: reducing their carbon footprint, investigating alternatives to fossil fuels, and learning about product lifecycles and social justice. In *Connecting the Dots: Key Strategies That Transform Learning for Environmental Education, Citizenship, and Sustainability*, authors Stan Kozak and Susan Elliott offer concrete steps that educators can implement to “prepare our young people to take their place as informed, engaged citizens.”¹⁴

How to Nurture Stewards

It is important to recognize that children of different ages respond to the environment in markedly different ways. Well-meaning educators may want to talk

to small children about the imminent dangers of climate change and the effects of global warming, but small children simply do not have the cognitive faculties to process such large and multidimensional issues. Instead, like ever-widening fields of self, children first discover their bodies, their senses, and the environment immediately around them. As they become older, they recognize cause and effect, action and reaction. They discover empathy and compassion. Older still, and they recognize that they are embedded in a community of people and other living things. As teenagers, they begin to be ready to understand larger, more complex issues facing their community and beyond. As mature teenagers, they can take on issues of social and environmental justice.

The Stewardship Framework articulates a variety of stewardship principles and suggests ways to implement these, derived from research and interviews aimed at children from early childhood to the teenage years. (See Table 5–1.) Nurturing stewards is a proactive undertaking. Building on a sense of wonder and awe, educators can start by modeling empathy and respect for all life. At each stage, children need opportunities to develop their spirit, heart, mind, and body. As children begin to learn about how the world functions, they understand the impacts that people can have and they explore solutions to challenges within their community. As youth develop leadership skills by participating in local action, they develop confidence, and a sense of agency and belonging. Engaged stewards arise when we teach our children to know, love, understand, and protect the very land they stand upon.

This is a call for educators, parents, community leaders, and youth groups to coordinate their efforts so that they may take collective responsibility for fostering stewardship. Every community has its own environmental challenges, as well as its own resources and opportunities for environmental education. Despite best intentions, environmental education is often delivered in an ad hoc and siloed manner by individual schools and/or organizations. At times, efforts are duplicated, and key stewardship developmental opportunities are



U.S. Army photo/Patrick Bloodgood

A fourth-grade class plants marsh grasses along the shoreline while studying the ecosystem of the Elizabeth River in Norfolk, Virginia.

Table 5–1. Fostering Stewardship

For Young Children (Ages 3 to 6)

Core Stewardship Principle	Stewardship Opportunity
A time for deepening relationships and understanding.	Choose an outdoor place to explore and play in. Visit regularly. Provide loose parts for kids to manipulate (sticks, stones, tree slices).
Reinforce and expand the developing sense of empathy.	Plant, tend, and harvest something that can be eaten. Raise butterflies, care for an animal.
Celebrate seasons.	Find simple ways to recognize and enjoy the change of each season.
Cultivate sensory awareness of nearby nature.	Identify natural sounds and smells. Explore micro-environments (peek under rocks/logs, create a mini trail).
Encourage the idea of “neighborhood”—that our community consists of other living things as well as humans and built structures.	Get to know plants, birds, and five insects living in your area. Create a mural that depicts the characters of your “neighborhood.”
Offer a creative response to time spent outside.	Develop art projects using natural materials. Create a story or a play about the characters in your “neighborhood.”

For Middle Childhood (Ages 7 to 12)

Core Stewardship Principle	Stewardship Opportunity
Develop more-complex outdoor skills.	Try non-motorized outdoor activities, such as hiking, survival skills (shelter building, fire making, foraging wild edibles), orienteering, birding, and astronomy. Spend at least seven hours a week practicing these skills.
Explore human impacts on the environment. Develop leadership and decision-making skills by planning and implementing a simple community-based project.	Create a small naturalized area. Manage a school recycling or composting project. Plan a small stream/river cleanup project. Make a poster or video to educate your community about your project. Research and write about the history of the piece of land you occupy.
Expand understanding of the relationships between living things and their habitats.	Explore biodiversity in a nearby natural area. Conduct a small-scale bio-physical inventory, finding at least ten species each of plants, animals, and insects. Explain three ways that this ecosystem helps the environment. Get involved in citizen science projects: monitor bird, butterfly, and amphibian populations. Monitor ecosystem health by conducting basic water and soil tests.
Expand understanding of sustainable lifestyles.	Be an energy detective. Find out what kind of energy is used for heating, cooling, lights, and appliances at home or school. What renewable energy systems can you observe in your region? Design an energy-efficient home that is healthy for both people and the planet. Think about using natural materials, passive solar design, rainwater harvesting, renewable energy, and innovative ways to treat human waste.

Table 5–1. continued

For Older Children (Ages 13 and older)

Core Stewardship Principle	Stewardship Opportunity
Expand skill and confidence in outdoor awareness, responsibility, and survival.	Research the meaning of sustainable harvest. How can the environment provide our needs without being damaged by human impact? Learn how to find your way in a natural area using a map, compass, and/or GPS. Learn how to recognize at least two constellations in the night sky in each season. Learn how to tell the four directions using clues in the sky.
Deepen understanding of how modern lifestyles affect the environment. Expand leadership and problem-solving skills by seeking solutions to ecological imbalances.	Calculate your ecological footprint. Research how your country's lifestyle consumes global resources, and how this compares with other countries. What does sustainability mean? Set a goal to reduce your ecological footprint for a month and assess how successful you are. Get your family and school involved, too.
Expand abilities to understand and empathize with others while exploring and responding to local social and environmental issues.	Find an organization that is making a difference in your community. Volunteer. Teach someone younger than you an outdoor skill. Find someone to tell you how your area has changed over the years. Find a local hero who is working to protect the environment. Arrange for them to speak at your school. Volunteer in a natural area to help with trail maintenance, ecological restoration, or control of invasive species. Help with a community tree-planting project. Participate in planning, planting, maintenance, and monitoring. Do you think it was a successful project? Would you make any changes in future projects?
Learn about social and environmental justice.	Find an issue of local concern that you feel strongly about. What problem needs to be solved? How does this issue align with global issues? Get involved. Learn simple action skills: how to make a presentation, how to write a convincing letter, how to organize an event. Learn how to listen and try to understand multiple points of view. Find a mentor who can help you learn and do more to solve this problem.
Express your feelings about your local environment.	Create a story, poem, visual art piece, or play that captures your feelings about the land you occupy. Write a letter to your ancestors. What would you say is worth protecting for your children and for their children?

missed. One way to move forward is by forming a stakeholders group and developing a collaborative approach among community organizations—including schools, early childhood programs, youth leaders, parent councils, municipalities, and faith groups—to ensure that every child has access to key stewardship opportunities throughout their development. Then, encourage other communities to do the same. In the end, it takes the heart and conviction of a village to raise a steward.

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Chapter 5. Pathway to Stewardship: A Framework for Children and Youth

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STATE OF THE WORLD

EarthEd

Rethinking Education on a Changing Planet

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—**RICHARD LOUV**, author of *Last Child in the Woods*, *The Nature Principle*, and *Vitamin N*

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Cover design: Bruce Gore

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All Island Press books are printed on recycled, acid-free paper.

ISBN 13: 978-1-61091-842-8

ISBN 10: 1-61091-842-8

