

FOREST AND NATURE SCHOOL IN CANADA:

A Head, Heart, Hands Approach to Outdoor Learning





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PREFACE BY DAVID SOBEL

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Preface by David Sobel



The original kindergarten—the children’s garden—conceived by German educator Friedrich Froebel in the 19th century, was a place where children learned through play, often in nature. That idea is fast eroding. Children aren’t playing in the garden anymore; instead they’re filling in bubbles on worksheets.

In the face of this indoor-ification, a cultural and educational movement is emerging—focused on new approaches to nature-based education. This movement offers us a glimpse of what childhood used to be, and still could be—the modern re-creations of the children’s garden: the Forest and Nature School. If we looked to these examples, the stories and perspectives written on these pages, we might be able to rescue childhood.

Jenny Merrill in the Golden Jubilee edition of *The Paradise of Childhood* (1916) describes what exemplary curricula were like in early 20th-century kindergartens, including “observation of the sun, the moon, the stars, the sky, the clouds, rain and snow ... shadows indoors and out-of-doors ... care of living animals, [such as] a kitten ... learning names of natural objects.”

The Forest and Nature School programs of today aspire to this same kind of nature immersion. But, in their purest form, they go even further: Some forest kindergartens have the children outside 80 to 90 percent of the time. Many of the more than 700 *Waldkindergartens* in Germany have no heated indoor facility—just a tool shed or maybe a teepee, outdoor toilet, yurt, or open-sided shelter with a fire pit.

Isn’t this what we want for our children? This immersion in the natural world, this feeling-at-oneness, these eyes sparkling with fire. We’re learning that grit and stick-to-it-ive-ness are some of the core character traits that determine success in school and in life. Teachers and parents of children in Forest and Nature School are finding that mastering puddles is just as important as learning letters in preparing children to find their way through the smartboard jungle.

And so, the pendulum swings towards what we know to be true, that nature has a purpose in learning, development, and in building a sense of place in the world. Forest and Nature School provides an opportunity for this to be embedded into education, in a deep, meaningful and practical way.

David Sobel



A SPECIAL THANK YOU
AND CONTRIBUTING
AUTHORS

Contributors

The educators who have helped write this guide have worked in and supported FNS both from a theoretical and practical perspective, and most have been running FNS programs from 2008 onwards. We often wished we had a resource such as this, and after years of practice we know that more supports are needed for educators trying to move teaching outdoors, into the natural world.

Forest School Canada is striving to do this very important work, along with many others who have come before us, and we're very grateful to the people who have believed in our vision, and have supported our process. Specifically, there are no words to express the ingenuity and effort from for the team of committed educators who have helped brainstorm and write this guide, our Board of Directors who support us in our day to day, our many advisors who guide us in the right direction including Jon Cree, Enid Elliott, Diz Glithero, Shawna Babcock and Dr. Mark Tremblay for their passionate contributions. A big thank you to our partner organizations (The Child and Nature Alliance of Canada; Focus on Forests), as well as our funder (TD Friends of the Environment Foundation) for making this possible. Also, we extend our gratitude for our special guest contributors for sharing their passion, wisdom, inspiration and guidance, (Robert Bateman and David Sobel).

Lastly, to all the children and educators who have taught us the importance and power of learning in the natural world, we write this for you.

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INTRODUCTION

A Day in Forest School

It's always sunny on Forest School days.

—Max, age 5, participant, Baxter Forest and Nature School

On a damp, wet spring day, the children meet in the forest. They're dressed head to toe in waterproof clothes, rubber boots, wearing layers of insulation to keep them warm. They clamber up a huge, u-shaped log, yelling as they greet each other. "Hey, climb on my space ship, we're going to take off!" says one child, throwing her pack on the ground so she can hold on. "I'm going to play hide and seek," says another child who's hiding behind a tree. "Start counting!" Some of the children decide to play, tucking themselves into the forest.

The day begins with a song to gather the children in from their first explorations. The children meet in their "classroom" without a room, at trail's edge. They arrive dressed to learn; to get dirty, explore, touch, engage the senses, ask questions, find answers, assess risk and even make mistakes along the way.

The forest is misty after the rain. As they walk up the trail, the children come upon a tree that fell a few weeks before. Its squishy core oozes water when they sit on it, and they try squeezing the pulpy centre in their hands. "A mushroom!" yells one of the children, looking behind the log. Everyone looks at the mushroom and debates why it is growing there. They decide that it would make the perfect house for a fairy, or perhaps a forest animal. One of the children picks up a fallen branch and drags it from side to side on the trail, moving very slowly up the hill.

Another child says he's hungry, and the group decides to move into the forest, ready for a snack. Sitting in a circle under the shelter of the trees to wash their hands and get out their snacks, the children begin to share and listen to one another's stories. Today the children wonder whether a bear might come to visit this park; they tell real-life stories as well as "tall-tales" about times they've encountered bears, raccoons, and other animals in the woods. The educator sees that the children are using this time to engage in story, but they are also planning and assessing risk—deciding what to do if they encounter a live animal, and consoling one another's unspoken fears.

After snack, the group fans out into their favourite spots. Some of the children climb on the low and bending branches of a maple tree. Others create a fort around a fallen branch, hiding themselves in it because there could be alligators loose in the forest. They find a stick that looks like an alligator and nurse it back to health in their fort.

On the way back at day's end, the children discover that the open field beside their forest hideout now features a mud puddle they can play in. One child jumps into the middle, getting his boot stuck—a fact that he announces with relish. He's a little frustrated when it won't come out, so the teacher asks everyone how they would get their boots unstuck. The other children join in, standing around the edges of the puddle or splashing into the middle. One falls down on her bottom with a splash, giggling. There's a stump of a tree beside the field, and one of the children decides that he'll paint it with mud. Soon, many of the children are placing mud on the stump.

An Overview of this Guide



Forest School Canada was formed in the spring of 2012 as an education initiative of the Child and Nature Alliance of Canada. Nurtured under this organization for a couple of years, Forest School Canada is now an independent not-for-profit organization that works within a collaborative leadership model. A prime example of this collaborative spirit is reflected in the process of writing this guide: we formed a committee of *thirteen* educators from across Canada to design and write this guide through a participatory process. In the end, we offer you a resource that is steeped in the rich international history of Forest School, but reflects what is happening nationally and regionally with Forest and Nature Schools here in Canada.

The role of this guide is to help educators and the communities that surround and support them, (such as administrators, facilities staff, parents, licensing officials, etc.), to learn more about Forest and Nature School (FNS) and what this model of education offers Canadian children. As we define Forest and Nature School, dive into the ethos and learning theories embedded in this model of education, and share resources with you we hope you will feel inspired to look into Forest and Nature School more deeply.



PART 1

WHAT IS FOREST AND NATURE SCHOOL?

A Definition

Forest School is an educational approach, and program of delivery, that has existed since the late 1950s, with thousands of programs expanding the world over, starting in Denmark and Sweden, moving through Scandinavia, onto Europe, China, Australia, New Zealand, the United States and now Canada. Although Forest School is called by many different names (e.g., Nature Kindergarten, Outdoor School, Waldkindergarten, Rain or Shine School, Bush School), in Canada two prominent names are taking hold: Forest School and Nature School. In this guide we have chosen to refer to our work as Forest and Nature School (FNS) to reflect what is happening in Canada to date.



In FNS, children spend anywhere from a half day to a full day outdoors in local woodlands and green spaces, in various urban and near-urban parks, natural spaces adjacent to or on school grounds, or natural playgrounds and outdoor classrooms. Children attending FNS have the opportunity to learn in a natural environment on a regular basis. Some programs are offered to students one half-day per week, whereas other schools and early years centers have embraced this approach on a more full time basis, with students spending the majority of their days outdoors.

Two main features separate Forest and Nature Schools from other outdoor and environmental education programs. As described above, FNS can happen on a part time or full time basis; and it can also take place in a variety of contexts, environments, with varying age groups, and in different climates.

Despite variations, all Forest and Nature School programs adhere to the following: *regular and repeated access to the same natural space*, as well as *emergent, experiential, inquiry-based, play-based, and place-based learning* (MacEachren, 2013). The defining feature of this type of nature-based education program is that children are provided with opportunities to build an on-going relationship with the land, to a dedicated educator, to one another, and to themselves through this educational approach.

The activities that happen in Forest and Nature School vary, and can depend on the following circumstances: the season, the community context, climate, landscape, animals that have



visited the night before, trees that have blown down in the wind, the kinds of provocations elicited by the educator, the kinds of tools and loose parts provided, the children who are in attendance, how long the group has been formed, and—most importantly—what interests the child(ren). Sometimes children work independently, finding solace in their own worlds and creations and ponderings. Other times children work collaboratively to create, problem solve, support one another, dream of a bigger and better world. FNS is often described as a “magical” thing to witness, as it’s often a microcosm of collaboration, communication, trust building, and a working model of consensus building.

Forest and Nature School touches on all subjects and disciplines: in any given moment an experience can cut across math, science, art, literature, physical education, etc. Skilled educators in FNS will often plan their lessons at the end of a session, (also known as “backwards lesson planning”), and will know what curriculum standards they need to meet on any given day. The learning outcomes are based on real-time explorations and experiences, rather than pre-determined concepts in books or on screens, done within the four walls of a classroom.

Aboriginal Perspectives

There is a teaching in every part of creation. It is our task to find it, learn it, and apply it.

- late elder Ken Goodwill (First Nations University of Canada, n.d.)

Although FNS is relatively new to Canada, Aboriginal people have been offering sophisticated, land-based education to their children on this land for millennia. The content of that education varies from place to place with the diversity of the Nations that live here in Canada. However, there are some similarities across them. Like Forest and Nature School, Aboriginal approaches to education emphasize experiential learning, peer-to-peer learning, and require people to take responsibility for their own learning. When educators use Aboriginal pedagogy in their classrooms, and let the students know that what they are doing has Aboriginal roots, it helps create an atmosphere of mutual respect and sharing, it helps Aboriginal children and their families to feel more welcome in the school, and it helps non-Aboriginal children to develop a healthy, positive understanding of their Aboriginal neighbours. With at least 15,000 years of intellectual tradition and educational experience on this land, Aboriginal education can lend a

great deal to Forest and Nature School, making FNS all the richer, more locally appropriate, and more representative of a diversity of traditions.

Some traditional Aboriginal knowledge is centuries old, and some is modern and reflects Aboriginal perspectives in the world today. At the heart of Aboriginal education and life philosophy (in



Photo credit of Kenjgewin Teg Educational Institute.

much of Canada) are the *Seven Grandfather Teachings*. These are honesty, humility, respect, bravery, wisdom, truth, and love. Aboriginal learning in many places is also rooted in the *Four Directions*. This teaching is tied to the land, and it tells us about who we are as human beings. The balanced person is composed of an emotional, physical, spiritual and intellectual self; and the best learning is learning that touches the student in all of these areas. Forest and Nature School offers students and educators the chance to find the joy in learning from connecting to each other and the environment, the chance to experiment with new activities, to honour and respect our place in the natural world, and to observe and learn about nature as it surrounds us.

Aboriginal pedagogy makes use of wonderful, interactive approaches to learning. Probably the most commonly known Aboriginal pedagogy is teaching through stories and anecdotes. Traditionally, legends and lore were used in the winter only, and this is still true today of some stories. However, many traditional stories have been written down and can be used any time of the year to help engage students. There are also new stories that have been authored from an Aboriginal point of view. (Some great books to start with are listed in the resources section of this guidebook). Aboriginal stories include history as told from an Aboriginal perspective and personal stories. While there is a serious taboo in many Aboriginal cultures against telling someone else's personal story without their permission, educators often refer to their own experiences to help their students learn.

Observation and emulation are also important ways of teaching and learning for Aboriginal peoples. Mentoring was and is still a significant part of learning practical skills, traditional roles, and ceremonies. Above all, Aboriginal pedagogy is centred on observation of nature and trying to learn the lessons that the plants, animals and natural systems can teach us. In most Aboriginal cultures everyone was and is considered equal and the primary focus is on the community. The role of educator and learner can change throughout the day, depending on who has more knowledge of a given task. Elders, of course, are held in high esteem for their wisdom and knowledge, and can be a vital resource for communities and individuals.

Benefits

This change, signified by many teachers and parents withdrawing their children from parks, streets and community facilities, is predominantly fed by a culture of fear, insecurity and litigation. This is in light of current childhood research that states by not allowing children to participate in the life of their communities, teachers and parents are denying children the opportunity to develop the knowledge, skills and experience to be safe and confident to confront the challenges complex urban environments now present for them.

—Malone, *Place-Based Pedagogies in Early Childhood and Primary School Settings* (2012, p. 2)



Why is Forest and Nature School important? And why now? Well, two pressing concerns make FNS more important than ever. First of all, research shows that youth participation in outdoor activities has declined (Children & Nature Network, 2012). It has gotten to the point that, for instance, in the U.S. the average child spends “as few as 30 minutes of unstructured outdoor play each day,” but “more than seven hours each day in front of an electronic screen” (National Wildlife Federation, 2014). While it’s tempting to write this off as a problem unique to the U.S., children’s activities outside school are strikingly similar across nations (Children & Nature Network, 2012). The second—and closely related—concern is that childhood obesity rates have increased and prescriptions for childhood mental health problems (like ADHD) have skyrocketed.

While obesity and poor mental health are complex problems, researchers believe that—among children—*more screentime and less physical and outdoor play are among the causes* (Muñoz, 2009). As the National Wildlife Federation (2014) puts it, “our kids are out of shape, tuned out and stressed out, because they’re missing something essential to their health and development: connection to the natural world.” The evidence suggests that viewing, interacting with, and living in natural environments can have multiple effects on “reducing stress, increasing patience,

increasing self-discipline, increasing capacity for attention, increasing recovery for mental fatigue, or from crisis and from psychophysiological imbalance,” (Russell et al., 2013, p. 482). In a timely way, Forest and Nature School weaves together many elements that help counteract the physical and psycho-social deficits linked to a sedentary lifestyle and disconnection from nature.

By including outdoor play, Forest and Nature School can heal and strengthen children’s *bodies* through increased physical fitness, higher levels of vitamin D, and better eyesight (Ebberling et al., 2002; Collins, 2011; American Academy of Pediatrics, 2009; Children & Nature Network, 2012). FNS can also heal and strengthen children’s *minds and relationships*: environmental education is linked to better performance in math, reading, writing, and listening and better critical thinking skills (Bartosh, 2003; Ernst & Monroe, 2004); and exposure to nature can reduce ADHD symptoms (Wells, 2000). Play and exposure to green spaces can also reduce children’s stress levels, protect their emotional development, and enhance their social relations (Kuo & Taylor, 2004; Ginsburg, 2007; Weinstein et al., 2009; Children & Nature Network, 2012).

Forest and Nature School might also be a way to counteract children’s decreasing knowledge of biodiversity and the environment (Children & Nature Network, 2012). By exposing children to areas rich in biodiversity where they can learn about environmental issues hands-on, FNS can help children become well-informed and caring stewards of the natural world.

Potential Benefits of Participating in Forest and Nature School:

- **Improved confidence, social skills, communication, motivation, and concentration (O’Brien & Murray, 2007);**
- **Improved physical stamina, fine and gross motor skills (O’Brien & Murray, 2007);**
- **Positive identity formation for individuals and communities (Russell et al., 2013);**
- **Environmentally sustainable behaviours and ecological literacy;**
- **Increased knowledge of environment, increased frequency of visiting nature within families (O’Brien & Murray, 2007);**
- **Healthy and safe risk-taking;**
- **Improved creativity and resilience;**
- **Improved academic achievement and self-regulation;**
- **Reduced stress and increased patience, self-discipline, capacity for attention, and recovery from mental fatigue; (Russell et al., 2013, p. 482);**
- **Improved higher level cognitive skills (Atchlet, Strayer & Atchley, 2012);**
- **Male inclusion in education. (Children & Nature Network, 2012; Massey, n.d.).**

The Role(s) of the Educator

The very skilled educator knows when to offer an insight, a question or materials to support a child's learning, but more importantly knows when to get out of the way.

—Jon Cree, UK Forest School Association

Forest and Nature School educators are people who love natural places, and they share this love with children by bringing them to those places to play and learn. The outdoors is their classroom, and they choose and tend it carefully. The FNS educator's role is that of a facilitator, one who moves from active sparking of the children's interests into quiet observation and planning.

- **Sparking Engagement:** By modeling enthusiasm for nature play, the educator encourages children who might be nervous or new to outdoor play. Forest and Nature School educators act as a creative spark for the group, encouraging the growth of new ideas by making available to the children materials, resources, and experiences that expand their creative, imaginative, and exploratory play. An educator might bring a personal story that sends the children off into stories of their own or ask a question that encourages the children to look more deeply into something that they have found.
- **Observing:** Once the children are engaged in exploration, the educator steps back to give the children space to play and explore. This is an opportunity to become an observer, watching the children's interactions with each other and the site, collecting and documenting these experiences, and using this knowledge to enhance future outdoor learning.
- **Learning Alongside Children:** The educator gets dirty, explores, creates, builds, learns, gains knowledge, celebrates alongside the children they work with.
- **Staying Safe:** During Forest and Nature School, the educator's role is to make sure the group is physically safe and comfortable. The children need to dress well for the weather and stay warm and dry throughout the day. The educator also assesses the overall safety of the site and the risk management required for specific activities, which can change from day to day, in collaboration with the children they work with.
- **Creating Connections:** The educator works to create community with the children, the parents, the place, and the community at large and works with the children to help them through conflicts and discussions that arise.

Before and during the group's visit to a site, the educator works with staff and students to assess the risk, ecological sensitivity, and play value of the site. Forest and Nature School educators choose rich natural places where the children can engage with loose parts and with natural features that engage the imagination and promote the children's physical and social development. They also act as stewards of the place, conscious of the group's interactions with it and their impact on it over time.

A Forest and Nature School educator wears many hats. They slip seamlessly from playmate to researcher, at times actively participating in her students' exploration, while at other times maintaining a distance to listen and observe, and at other times stepping in as site and risk manager. They believe in the importance—and the joy!—of not simply permitting but encouraging children to get dirty and wet in order to experience a sense of connection to place, and to fall down in order to experience a sense of accomplishment when they get back up, or trust in a peer when they are helped back up.



The educator both leads (invites, nudges, pulls) students beyond their comfort zones and misconceptions into deeper thinking and understanding, and follows their interests. Additionally, they spend much time reflecting on the day's events for future session planning, which itself is more an act of imagining the possible provocations, questions, situations they might set up to build on prior experiences.

Indeed, reflecting about and articulating “what really happened” during the periods of outdoor free play and exploration that characterize Forest and Nature School is one of the most important roles a Forest and Nature School educator plays. In this way, they act as a translator, reading the day's events with an eye that has been rigorously trained to uncover or decode the meaning made by and the growth facilitated in students while they were building forts, splashing in a creek, or scrambling up and sliding down slippery hills—and then communicating that value to parents, colleagues, and the broader community.

The Forest and Nature School educator is a defender of play, and a protector of fantasy, wonder, and awe. They are the caring adult about whom David Sobel writes, modeling respect and appreciation for the surrounding beauty, and under whose wing children come to feel safe in and connected to the natural world. It is this connection that will give purpose and meaning, moving a child through play, towards stewardship, and back to play once more.

The Role(s) of the Child

I love Forest School! Forest School is better than candy. The only thing better than Forest School is MORE Forest School.

—Alec, age 5, participant, Maplewood Forest School

The child's day begins with those first sensual experiences of the natural world. This 'classroom' is an infinite reservoir from which experience upon experience can be pulled, and children intuitively know this and immerse themselves in it. The sounds of the birds and other forest creatures, the crunch of snow or branches underfoot, and the whistle of the wind in the trees; the first view of the meeting place, the sight of a bird in flight, the blue or overcast sky overhead; the feeling of cold air, the sun's warm rays, or the touch of pine boughs on skin; the smell of the trees, the earth, and sometimes a fire; sometimes they can even taste those smells as the wind brings them to the group. These sensual experiences create anticipation of the day ahead.

Forest and Nature School often begins with a group meeting that bonds the children together and gives voice to their first impressions and any ideas that might lead to unforeseen adventures. While experienced educators will always have a rough outline for the day in mind built on previous sessions, they also know the children provide the impetus that will drive the day and express the collective needs of the group. So, with plans made and ideas expressed, the first expeditions can begin. Each day is different; tasks and initiatives can span several days, weeks, or months depending on where children will lead themselves and/or the group at large.

The children bring their own personalities, their own experiences, and their own stories to the group, and oh, what stories are told! Marvelous tales and grand fantasies play out in the minds of the children and are enacted through their experiences in the forest. Sometimes the play is pure imagination, while other times it is deeply rooted in the realities before them—imagined rescue missions for a comrade lost in the wilderness or the salvation of forest creatures, unseen but empathically acknowledged. Fantastic stories and simple tales from all the children provide the narrative that spins the yarn that is FNS.

A child interviewed at Carp Ridge Forest School for CBC, "The National" was quoted, "we don't learn anything, we just play." Herein is the beauty and the simplicity of Forest and Nature School. The children, through their deep immersion in the experiences of the forest, don't realize the profound connections they are making with the natural world or the social and physical skills they are constantly developing. But we, the educators, know—and that is why we do the work. Through their play, we fulfill our vocations and, in turn, assist the children in viewing nature as an extension of themselves, as a critical part of their lives and world. As one Forest and Nature School graduate explained when asked what he was grateful for one day at snack, he said simply "sticks and love."



HOW DO CHILDREN LEARN IN FOREST AND NATURE SCHOOL?

The Ethos

It's important to have knowledge of the heart," he explains. "How do you get that? Well, you learn through the soles of your feet, the palms of your hands, the seat of your pants. All that knowledge has to pass through your heart on the way to the head.

—James Raffan, Historian, Camp Kandalore (*Our Kids*, 2014)



Children's experiences with learning are defined by their capacity for inspiration, innate sense of exploration, strong desire to learn through play, and their level of engagement with their surroundings. In a FNS, a walk in the woods becomes a fantastical adventure where curiosity and fascination guide a child's spirit of enchantment; where a stick takes on a thousand magical meanings; where learning ebbs and flows, crossing multiple subject areas; and where process is valued as highly as outcome.

Intimate and meaningful connection with the natural world through FNS helps develop a sense of "heart knowledge," which helps children tread the landscape—figuratively and literally—moving from "I know" to "I care" (Doerr, 2004). Helping children recognize themselves as an important part of a larger whole encourages them to develop an ethic of care towards themselves, others, and the more-than-human world.

Forest and Nature School Principles

Multiple principles of learning need to be considered when implementing Forest and Nature School programs. These principles can help form the foundation upon which broader learning objectives and curriculum requirements rest—for more information see (FSA, n.d.).

Forest and Nature School:

- **takes place in a variety of spaces, including local forests, creeks, meadows, prairie grasses, mountains, shorelines, tundra, natural playgrounds, and outdoor classrooms.**

- is a long-term process of *regular* and *repeated* sessions in the same natural space.
- is rooted in building an on-going relationship to place and on principles of place-based education.
- is rooted in and supports building engaged, healthy, vibrant, and diverse communities.
- aims to promote the holistic development of children and youth.
- views children and youth as competent and capable learners.
- supports children and youth, with a supportive and knowledgeable educator, to identify, co-manage and navigate risk. Opportunities to experience risk is seen as an integral part of learning and healthy development.
- requires qualified Forest and Nature School practitioners who are rooted in and committed to FNS pedagogical theory and practical skills.
- requires that educators play the role of facilitator rather than expert.
- uses loose, natural materials to support open-ended experiences.
- values the *process* as valued as the *outcome*.
- requires that educators utilize emergent, experiential, inquiry-based, play-based, and place-based learning approaches.

Learning Approaches

“Once the emotions have been aroused – a sense of the beautiful, the excitement of the new and the unknown, a feeling of sympathy, pity, admiration or love – then we wish for knowledge about the object of our emotional response. Once found, it has lasting meaning”

—R. Carson, *The Sense of Wonder* (1956, p. 56).

The true meaning of education can be derived from the latin word ‘educere’ which means ‘to draw out,’ (Ravi, 2010). In FNS, an educator utilizes learning approaches that does just that, draws out ideas and theories that start with and come from the whole child. In this way, FNS is said to involve curriculum which ‘pulls’ out, rather than curriculum which ‘pushes’ in.

Inquiry-Based, Emergent and Experiential Learning

What does this mean?

Forest and Nature School starts with the child in the context of the natural environment, but where do we go from there? One of the first questions asked of the FNS educator is, “But, what do you *DO* when you get outdoors?” Although we cannot prescribe activities for an educator to adapt, we can describe a process that is rooted in learning approaches that add depth, meaning and purpose to FNS.

Children are born with an innate desire to explore and experience everything that surrounds them, to ask questions of these experiences, and to learn by doing. When these processes are supported, through further investigation and inquiry by a significant adult in their life, the results can be far-reaching. Most importantly, FNS models to children and youth that learning can be fun, can feel like an adventure, and can lead to a lifelong passion for learning.



“Inquiry-based Learning is a dynamic and emergent process that builds on students’ natural curiosity about the world in which they live. As its name suggests, Inquiry places students’ questions and ideas, rather than solely those of the teacher, at the centre of the learning experience.

Students’ questions drive the learning process forward. Teachers using an inquiry-based approach encourage students to ask and genuinely investigate their own questions about the world. Teachers further facilitate students’ learning by providing a variety of tools, resources, and experiences that enable learners to investigate, reflect, and rigorously discuss potential solutions to their own questions about a topic the class is studying,” (Natural Curiosity, 2011).

In FNS we build upon children’s experiences, as well as their “emerging” ideas, questions, and interests, scaffolding towards greater learning. Inquiry, at its most basic and fundamental form, fuels this process and helps educator and child to dive deeper into knowing, learning and being.

Highlights of inquiry-based, emergent and experiential curriculum include:

- It's based on the individual interests of the children involved in the program;
- It allows for personal research by the children in areas of interest;
- It lets students work on their own interests at their own pace, addressing problems with multiple learning needs in the classroom environment;
- It incorporates the whole child, in the context of their family, community, and cultural background, as they carry these with them throughout their experiences;
- It explores problems that offer a variety of responses (it's process based);
- It supports children to expand on their experiences, knowledge and wisdom in a non-threatening and empowering manner; and
- It uses self-directed learning to promote academic engagement and motivate participation.

Lastly, through this lens, children are more likely to be engaged, motivated, and inspired to participate in activities that interest them. Children become engaged as "partners in the learning process" (Kahn & O'Rourke, 2005, p.1) involved in small group activities that promote social interaction and problem solving. However, children are not always predictable in the direction they take in their learning, which makes the role of the educator both rewarding and challenging: educators who facilitate an emergent curriculum need to be flexible and creative.



What Does This Look Like in Practice?

1. Creating a culture of *observing and listening*, both of students and of the natural world, supporting students to do the same of one another and of their environment. An educator cannot “draw out” what they cannot hear, see or understand in a child.
2. Being willing to acknowledge and keep in check assumptions, prejudices, and preconceived notions, in order to move beyond what one “thinks” they know towards deeper learning instead.
3. Establishing low-ratio groups that support relationship-building.
4. Creating and modeling community standards that include respect, care, non-judgement, safety and inclusion.
5. Allowing children to make mistakes.
6. Allowing children to learn by doing.
7. Learning alongside children.
8. Introducing a resource, idea, or inquiry only after a child prompts in an explicit or implicit manner.
9. Giving children more time to explore, experience, solve problems, resolve conflicts, and provide answers to questions.

Play-Based Learning

Play is important for the healthy development of children physically, emotionally, and mentally. Play is essential both to human development and to our survival as a species. Play has long been known to have a significant role in building communication and social skills, aesthetic appreciation, creativity and problem solving, and scholars have highlighted its role in the development of the flexible and non-specialist behaviour necessary for our species’ survival as ecological and other conditions change.

—Play Wales (2003)

What Does this Mean?

Learning for children is grounded and expressed through play. As Jean Piaget once said, “play is the work of children.” A play-based pedagogy recognizes the holistic nature of play and centres around the development of the whole child; it treats a child’s emotional, physical, and social selves as interwoven and encourages depth of experience.

A child or youth at play in the outdoors is busy building social skills, learning to be reflective, understanding the limits of his/her actions and bodies. Children engaged in nature play are encouraged to solve problems through creative solutions and make decisions, while learning to trust their intuition. Nature-based play, rich in stimuli, allows children to rely on their senses to make sense of the world around them.

Children communicate through play, build relationships through play, articulate needs through play, and most importantly have *fun* through play. Learning that emerges through play is meaningful because of the authenticity of those playing—the play occurs on their terms, guided but not dictated by an educator.



A common definition of play in FNS can be defined as *“a process that is freely chosen, personally directed, and intrinsically motivated. That is, children and young people determine and control the content and intent of their play, by following their own instincts, ideas, and interests in their own way for their own reasons.”* (Hughes, 2013).

Play is explicitly recognized in Article 31 of the Convention on the Rights of the Child (adopted by the General Assembly of the United Nations, November 29, 1989), which declares:

- Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.
- Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activities.

What Does This Look Like in Practice?

Researchers have identified various types of play, and each can be demonstrated by children in FNS groups. In fact, all sixteen types of play identified and accepted by the National Standards for Playwork in the UK are evident in FNS groups. Fourteen of these are discussed below:



Symbolic play involves children using “symbols, objects, designs or signs” to “represent people, ideas or qualities” (Kilvington & Wood, 2010, p. 44). In Forest and Nature School groups, children can use sticks and rocks to represent everything from fire hoses, to swords, money, or food. They can also use them to represent “little people,” like younger brothers and sisters or other-world people.



Exploratory play is play that “accesses factual information about an environment and engages with the area or thing and, either by manipulation or movement, assesses its properties, possibilities and content” (p. 44). This is an obvious one for Forest and Nature School—kids explore **constantly** (under rocks, in decomposing logs, in branches, in tall grass, in the ground, etc).



Socio-dramatic play is an opportunity for children to enact real and potential experiences (p. 44). Groups of children in FNS often enact personal real-life situations, like bedtime or family holidays, in which they rotate roles of parent and child and deal with difficult siblings.



Dramatic play, in contrast, is an opportunity for children to act out events that are not part of everyday life. These include “scenes from others’ lives or from the television or theatre ... or being famous footballers or a band ” (p. 44). Children in younger FNS groups like to act out animal rescue scenarios, in which they find a lost squirrel or rabbit and care for it. Older students often create elaborate stories that they continue to enact from session to session.



Social play includes “any social or interactive situation which contains an expectation on all parties that they will discuss and abide by certain rules, customs or protocols” (p. 45). Unless a child chooses to play independently, almost all play in Forest and Nature School is social play. Children agree on the activity, where it will be played, how it will be played, what will happen, and how to deal with challenges. For instance, a group might develop an elaborate “bakery” in the woods and build it each time in the same place. Each child in the group would then take on different established roles in the “bakery”—like baker, cleaner, front counter—and, together, have great and heated discussions about who is supposed to what, when, how, and what rules should exist for changing jobs to make it fair for everyone. With so many children involved in one play scenario, it might seem likely to end in disagreement; yet, in our experience, the children all follow the rules they created together, and they can play quite happily this way for an entire session.



Communication play involves “using words, nuances or gestures for example, mime, jokes, play acting ... singing, debate, poetry” (p. 45). This is common in older groups, and students who are more reserved are more likely to participate in this type of play at Forest and Nature School.



Creative play (inventive play) “is about focused but spontaneous creation with a wide range of materials and tools” (p. 45)—and Forest and Nature School can be very creative. Young children often make beautiful 2- and 3-dimensional designs using pinecones, sticks, bark, and stones that they find on the forest floor. Often, the children then use these to decorate a house or structure they have built in the forest. Children also regularly use natural materials to make music.



Deep play is play in which children conquer fears by working through what they perceive to be high risk physical or emotional experiences (p. 46). In FNS, deep play fear-conquering most often occurs in connection to climbing—climbing trees, or climbing over tangles of logs and branches.



Fantasy play is play that is completely unreal. FNS groups sometimes create stories and role-playing games involving superheroes or magic, and kids imagine they have special powers like flying.



Imaginative play is play in which “the conventional rules that govern the physical world do not apply, but is based on reality” (p. 46). There is an enormous amount of imaginative play at Forest and Nature School. Many of the children start their sentences with the word “pretend.” Children imagine the forest and its elements to be anything that fits the story or game they want to weave. Not only do people and objects take on imaginary roles, but these are constantly in flux—the children regularly discuss and agree upon changes to the scenario. For example, a fort structure might have started out as a ship and the children its crew—a ship that later morphs into the island the ship landed on, while the crew becomes those people who live on the island. Through the imaginations of children in a FNS group, you’ll find the ground you are standing on changes frequently: what starts out as water will quickly change into lava, and you’ll need to join the group on an imagined island for safety.



Locomotor play is active play. This is another obvious one for Forest and Nature School. Kids play hide and seek, climb trees/logs/rocks, hang from grapevines, walk around gathering materials, make and use pretend (and sometimes real) ziplines, roll down hills on the way to the site, and balance on fallen logs. Forest and Nature School play is **active**.



Mastery play involves “taking (and feeling) control of the physical and affective ingredients of the natural environment” (p. 46), for example “digging holes and tunnels in earth or sand; changing the course of streams; gaining a new skill, for example, a jump across a river” (p. 46). Certainly, young people in FNS groups dig holes, build using natural materials, make channels to drain or connect puddles, and gain new skills in terms of climbing, balancing, navigating steep hills.



Recapitulative play “displays aspects of human evolutionary history” (p. 47). While, at many Forest and Nature Schools, fires aren’t allowed on site, children will regularly build fires, pretend to light them, and create shelter villages around them. Even though some children are sadly prevented from actually lighting fires, they pretend to build fires with surprising regularity. They build shelters, in one form or another, in almost every session.



Rough and Tumble play involves testing physical limits, play-fighting, and chasing. Within certain student-generated safety guidelines, rough and tumble play also has a place at Forest and Nature School.

Place-Based Learning

For ourselves, and for our planet, we must be both strong and strongly connected—with each other, with the earth. As children, we need time to wander, to be outside, to nibble on icicles and watch ants, to build with dirt and sticks in a hollow of the earth, to lie back and contemplate clouds and chickadees. These simple acts forge the connections that define a land of one’s own—home and refuge.

—Nabhan and Trimble, *The Geography of Childhood* (1994, p. 75)

What Does this Mean?



Childhood connection begins in specific places, but extends beyond those places: as the poet Rilke wrote, “I live my life in widening circles, that reach out across the world” (Rilke et al., 1996). Once you fall in love with one place, your heart can open to the world.

Place-based learning is firmly rooted in the act of connecting children to a particular place through direct experiential contact. The ability to know a place intimately and to return to a natural space again and again, provides children

with familiarity while honing their ability to recognize and understand processes of change. With connection to place comes a desire and sense of responsibility for caretaking and protection. Frequent encounters lead to an increased sense of belonging and, ultimately, to a sense of stewardship for that place, for the broader community, and beyond.

Place-based educators call this “the pedagogy of community: the reintegration of the individual into her homeland and the restoration of the essential links between a person and her place” (Lane-Zucker & Sobel, 2005, p. ii). Not all children are lucky enough to have a city park or naturalized area behind their school, but as Robert Michael Pyle explains, the places for deep nature connection do not need to be vast or grand: the ditches, ravines, and pockets of wildness even in urban landscapes “are places of initiation, where the borders between ourselves and other creatures break down, where the earth gets under our nails and a sense of place gets under our skin ... [These places] teach us to care enough for all the land” (Pyle, 1993, p. xvii, xix). Forest and Nature School is a means by which young people can forge this sense of place.

What Does This Look Like in Practice?

For three years at Maplewood Forest School in Guelph Ontario, educator Jen Mason took a group of children out to Forest and Nature School for one hour a day, four mornings a week, throughout the school year. They walked behind the school into a city park, which featured some mixed forest and a marsh. One of the mothers of a girl in the group told Jen that, on the way home from school one day, her daughter saw a sign announcing



a future housing development that would be built in or near a marsh. The young girl was incredibly upset because she worried about the red-winged blackbirds in the marsh: “Where will they make their nests? Where will they live?” she asked her mother. She talked at length about the housing development and asked questions about its implications. The imminent loss of this habitat was her loss as well.

Such a beautiful and simple display of deep connection with non-human kin is a powerful validation of the importance of nature connection and place-based learning. At no time in Jen’s Forest and Nature School program had they talked overtly about the value of all living

things or the importance of preserving wild and semi-wild spaces. Rather, the children had walked in rubber boots along a marsh's muddy edge, made boats out of cattails, listened to the distinctive calls of the red-winged blackbirds, followed deer tracks through the ice and snow, made sculptures out of chunks of ice, laid on their backs and listened to cattails rustling, let snowflakes land on their faces, and celebrated the return of the red-winged blackbirds from warmer climes—the harbingers of spring. The children came to know the marsh and some of its inhabitants, and they developed an emotional connection to that landscape. Such a connection does not come from books or videos, but from a place-based relationship—from getting wet and muddy, paying attention, and spending time.

Storytelling

We live by stories, we also live in them. One way or another we are living the stories planted in us early or along the way, or we are also living the stories we planted-knowingly or unknowingly- in ourselves. We live stories that either give our lives meaning or negate it with meaninglessness. If we change the stories we live by, quite possibly we change our lives.

—Ben Okri, *A Way of Being Free* (1997, p. 46)

With a holistic and child-directed approach to learning, the Forest and Nature School environment provides many opportunities for sharing stories. As discussed above, folktales, fairy tales, riddles, rhymes, myths, fables, legends, and personal stories can all be part of storytelling in FNS. The tradition of oral storytelling can be a way to teach, engage, and provoke thinking. It can also be a jumping off point for inquiry, a stimulation of the senses, a tuning into place, and even an elicitation of the imagination.



Children and adults alike love to hear and tell stories. Oral stories in particular are a valuable form of education, entertainment, and sharing. Storytelling can be a powerful way to express emotions, describe experiences, enhance imagination, and develop listening skills. Storytelling can be at its most powerful when it happens “face to face, eye to eye, gesture to gesture, voice to ear, heart to heart and mind to mind in one location by one person to one or more” (Finnegan, 1992).



We learn sequencing, rhythm, and vocabulary as we listen to stories. By following the plot of a story, children learn how to understand sequences of events and their connection to each other. Stories also provide a platform for children to learn the meaning of new words: they learn what one word means by comparing it to other words around it. This happens subconsciously and constantly while children listen to stories.

The act of verbalizing memories is also important for developing children's language and memory skills. Reconstructing a story about what they have experienced gives children language practice. It also gives children the opportunity to go back in their minds and stretch their cognitive abilities as they think and talk about past events. Telling stories boosts memories. It also boosts self-esteem: recalling experiences helps children identify with their personal history and heightens their sense of self. In this way, sharing tales about the day, family history, and folklore is important for children's cognitive and emotional development.

Stories can also be a safe place for children to explore life. Through story they can take risks and face fears that might be too powerful for them to face in real life. In this way, storytelling is empowering and therapeutic. Many traditional and literary tales provide children with the opportunity to reflect on and validate feelings of sadness, joy, anger, empathy, jealousy, and many other feelings children experience on a day outdoors.

Storytelling helps children put themselves in other people's shoes. They learn to empathize with the teller, the hero, and the situation. Their bodies react to the story by tensing and relaxing at every twist of the plot. In this way, as children are experiencing the story, they are practicing empathy.

Stories can transport children to other times and places while expressing universal truths relevant to their own lives. They allow children to safely experience the adventures of others, while teaching them values and history, and helping them to discover themselves. In Forest and Nature School, connections to storytelling emerge in children's play and interactions with one another.

Bring storytelling into your Forest and Nature School through:

- learning folktales and fairy tales;
- telling personal, original, family, and traditional stories;

- making a regular time and place for storytelling;
- involving or getting involved with your local storytelling guild;
- using a musical instrument or noisemaker to introduce each story or start storytelling time (e.g. a harmonica, xylophone, or bird whistle).

Loose Parts

Materials that can be moved, carried, combined, redesigned, lined up, and taken apart and put back together in multiple ways.

—Belinda, “Loose Parts” (2009, p. 11-17)



“Loose parts” are materials that don’t come with any specific set of instructions; children can make of them what they will.

Nicholson believed “we are all creative and that ‘loose parts’ in an environment will empower our creativity” (Belinda, 2009, p. 11-7). He wrote, “In any environment, both the degree of inventiveness and creativity and the possibilities of discovery are directly proportional to the number and kind of variables in it” (Nicholson, as cited in White & Stoecklin, 1998).

At Forest and Nature School, loose parts are inherent. “Nature, which excites all the senses, remains the richest source of loose parts” (Louv, 2008, p. 87). Sticks, rocks, pine needles and pine cones, low branches, stumps, logs, and grasses all are loose parts that may be found in a Forest and Nature School environment. FNS is a setting in which different people and groups can interact in myriad ways.

Bring loose parts play into your Forest and Nature School through:

- Natural materials sourced sustainably on your site, such as sticks, rocks, pine needles, flowers, acorns, stumps, branches, logs, fallen bark, etc. (Note: bringing in non-native or foreign objects from other sites can be disruptive to local habitats).
- Tools for building, making and creating (used in a timely, safe and purposeful manner, with appropriate training to support it's use, and only when elicited by a child's interest).
- Handmade wooden mallets, stakes, tree cookies (can be made by educators and/or adults).
- Buckets, trowels, pulley's, rope, natural fibres, tarps of varying sizes.
- Identification books and tools for plants, animals, birds, etc.
- Clay, charcoal, wax crayons, pencil, paper, twine (for documentation, reflection, and/or making learning journals).





PRACTICAL
CONSIDERATIONS:
How to start a Forest and Nature School?

Seeing the Forest for the Trees

There is more information of a higher order of sophistication and complexity stored in a few square yards of forest than there is in all the libraries of mankind.

—G. Snyder, *Turtle Island* (1993, p.108)

A forest is what you make of it – it may be the single tree in your schoolyard, the woodlot connected to your school ground, or even a local park or nearby natural space that may take a short journey to get to. It is defined as a Forest and Nature School because it is where Forest and Nature School rules apply (Knight, 2009; Knight, 2011). As Robert Michael Pyle explains, the places for deep nature connection do not need to be vast or grand: the ditches, ravines, and pockets of wildness even in urban landscapes “are places of initiation, where the borders between ourselves and other creatures break down, where the earth gets under our nails and a sense of place gets under our skin ... [These places] teach us to care enough for all the land” (Pyle, 1993: xvii, xix).

Sustainability in Forest and Nature School

Sustainability in FNS refers to much more than the ecology of the natural environment and site where your FNS takes place. There is much to be learned from the field of sustainability education where “the emphasis is on such values as respect, trust, participation, community, ownership, justice, participative democracy, openness, sufficiency, conservation, critical reflection, emergence and a sense of meaning: an education which is sustaining of people, livelihoods and ecologies” (Sterling, 2008). From this systemic, holistic lens, we come to understand that the context of community, as well as how you engage your community, is as important to the development of your programs, as determining where your program will run.



In the context of FNS ‘sustaining people and livelihoods’ can mean many things. One consideration that falls under this area of sustainability is program accessibility, ensuring your program reflects, as well as supports physical, social, economic and cultural diversity.

In terms of the ‘sustaining ecologies’, it is vitally important that you ensure that the site has been chosen wisely and is used in a sustainable manner. This means working in relationship with your site, treating the forest area with respect and care, to ensure it will remain a valuable learning site for years and generations to come. It is important that everyone taking part in your program models an ethic of care and responsibility for the property and take pride in the local environment. Through modelling this ethic of care, we teach children to care as well!

A Forest and Nature School program constantly monitors its ecological and social impact. You may decide that you want to have a social and ecological impact form that is completed seasonally with your students. Having a better understanding of the larger picture of your FNS is an important part of your reflective practice and will support your students in building a relationship with the land, with the community at large, and with one another.

Site Selection



Selecting a site for your FNS, will be dependant on many factors, ranging on a continuum from what is available to what is ideal. One of the most important factors in considering a site for your program is choosing a nearby, natural space that is easily accessible and will have meaning for you and the community you work with. Canada is vast and rich in landscape, natural resources, geographies, topographies, etc. Connecting to the land, and to place, will depend on the region you live in and the ecosystems that surround you.

The Forest and Nature School approach can be adapted to a variety of natural spaces, ranging from local forests, creeks meadows, prairie grasses, mountain, shorelines, tundra, natural playgrounds and outdoor classrooms. A key component to selecting a site is engaging children to be a part of this process and when possible, allowing them to choose and set up a site themselves. This is the first step for a child or youth to direct their learning experience,

to feel a sense of relationship and responsibility to place, and how we begin to empower them to become active, engaged and capable learners.

Things to consider:

- **Does the site already have a management plan?** Consider using this as a building block for determining activities and locations of these activities.
- **Who are your stakeholders and partners for FNS?** Engaging community partners is key to building a supportive framework and can enhance programming. We do this by identifying community stakeholders and partners even prior to launching programs, and by holding public forums or more informal coffee or fire-side chats. Additionally, valuing and incorporating feedback received, building long-term relationships with community members, giving back to your community, and incorporating local cultural and environmental context into your program are all important to fostering community.
- **How will you measure your impact?** A Forest and Nature School site will be used season after season, year after year. Therefore it is important to ensure that measures are in place to ensure that the site is used sustainably.
- **How often will you monitor & assess your impact?** Regular site monitoring and impact assessments should be part of daily risk assessment. Watch, in particular, for evidence of negative impact on the site. If possible, move sites periodically to avoid degradation and negative impacts.
- **Does the site come with unique concerns?** Some sites come with unique species and habitats that need special care. Research the site carefully before and throughout your use of it for a FNS program.

Potential concerns and negative impacts that FNS programs should watch out for are compaction, interference with local wildlife habitats, areas that being overused, natural elements (like twigs and plants) being removed, and human-made materials being left behind.

Potential contributions you can make to give back to the site include planting trees and native wild plants, building habitat (bird or butterfly boxes), discussing site maintenance with the children on a daily basis. Groups can also create a photo diary of the Forest and Nature School to show its transition through time—this is also a great way to see your impact on the site.

Supporting and Assessing Risk in Forest and Nature School

Good risks and hazards are acceptable and hold few surprises. Bad risks offer no obvious developmental or other benefits.

—Ball et al. (2008, p. 29)

Avoiding hazards and risks is often deemed necessary as a means of avoiding injury, litigation, and insurance claims, as well as keeping children “safe”. These assumptions are fueled by societal norms that now view overprotection as a fundamental part of the role adults should play as they care for children.

Avoiding all risks and hazards comes at a great cost as *healthy risk plays an important role in the development of the child*. “An exaggerated safety focus of children’s play is problematic because while on the one hand children should avoid injuries, on the other they might need challenges and varied stimulation to develop normally, both physically and mentally” (Kennair & Sandseter, 2011). As our children tell us that they want to experience age-appropriate risk through their every effort to climb trees, jump rocks, run down hills, build shelters, and get their hands full of mud, *how do educators in Forest and Nature School programs begin to support and navigate healthy and age-appropriate risks?*



The first step is to acknowledge children’s competencies and capacity to navigate risks and hazards, and that recognizing and experiencing risk in childhood is a fundamental component of healthy development and learning. In doing so, we are setting the stage for children to begin navigating risk in healthy and controlled doses. Additionally, FNS supports children as they learn to self-regulate: as children experience more risky activities and terrain, they learn to determine for themselves whether something feels safe or not, rather than look externally to adults to decide this for them.

Secondly, in Forest and Nature School risk management is viewed as a fundamental skill needed for young people’s safety and well-being. It is through risk management that we are then invited into a world where we can be supported to experience risk in their day to day. Educators have a duty of care towards young people, and therefore have responsibility not only to keep young people safe, but also to enable them to learn to manage appropriate risks for themselves.

The risk/benefit assessment process in FNS should be based on the following considerations:

- What are the hazards?
- What are the risks?
- What are the benefits of the experience and/or activity?
- Who might be affected by them?
- What safety measures need to be in place to reduce risks to an acceptable level?
- Can the educator and/or children (where appropriate) put the safety measures in place?
- What steps will be taken in an emergency?

In risk management, hazards are the source of “potential” harm, and a risk is the measure of likelihood and severity of harm.



Example:

POSSIBLE HAZARD- A stick poking out on a trail at eye level

RISK- High given it is likely that children would walk into it because we take that path daily, and the severity of injury could result in losing or scratching an eye.

BENEFITS OF ACTIVITY- We need to take that trail to continue explorations where we left off last session, and there is no other path to get there. Benefits also to learning and development in the experience that is on the other side of this hazard.

SAFETY MEASURE- Prune that tree branch with loppers (can be implemented by the educator, with any interested children accompanying them).



In FNS, it's very important to engage children in calculated, age-appropriate, purposeful and meaningful levels of risk. This is both an art and a science, and an educator spends a significant amount of time in the "Forest and Nature School Practitioners Course" developing appropriate policies and procedures to communicate this to their community at large. This process is, and should be, dynamic and revisited on a regular basis.

Many measures need to be put in place in FNS as educators balance duty of care with children's innate desire to experience and navigate risk. Other measures, also covered in the practitioners' course, include:

- Communicating your position on risk in your programs vision and engaging your community in this discussion;
- Having an emergency bag on you at all times at FNS;
- Carrying an emergency procedure and emergency contact list on the outside of the bag in a waterproof covering;
- Ensuring appropriate child to adult ratios for safety;
- Carrying appropriate communication devices when out in nature with children;
- Developing your own risk assessment forms to meet the needs of your administration, school board, and learning community rather than adopting a template that doesn't have meaning to your group.

Examples of different types of risk assessment done in Forest and Nature Schools include:

1. Seasonal Site risk assessments
2. Activity or Experience risk assessment
3. Individuals risk assessment
4. Daily risk assessment
5. Dynamic risk assessment



WHAT RESOURCES
ARE AVAILABLE?

FAQS and IFAQS

(Frequently & Infrequently Asked Questions)

Frequently Asked Questions

How do I start such a program myself?

Start with finding your allies—administrators, like-minded teachers, support staff, parents, other community members. Encourage conversation around the changing tides in education. Show documentation on other schools that are thriving, and implementing FNS. Try and get an opportunity to visit other nature based schools that are out there. Use this information to help form a vision and mission, you will be able to know what works for you and what won't.

If you decide to take a 'Forest and Nature School Practitioners' Course' you will begin to explore the theoretical underpinnings, practical skills and establishment and delivery side of FNS. Within the course you will also be guided through risk/benefit assessments, ecological impact assessments, and developing policies and procedures for your program. These, along with your passion and experience, will form the foundation upon which your FNS program will stand.

How to I prepare my families and children to dress appropriately?

Educators prepare families through engagement, regular dialogue that can happen through a blog or face to face events, as well as through the development of a Parent Handbook. In the FNS Practitioners' Course, educators develop policies and procedures that help prepare families for what will happen in FNS. It is important that you explore means of supporting families with this, providing parents with the opportunity to experience the spring dew drops on the foliage, the the bitter cold of January. If they get to feel these conditions first hand, they are more likely to make the connections on what their children will need. Also, providing a supply list to new registrants, and seeking funding for equipment and extra supplies will be helpful to ensure children stay safe and warm.

What about funding?

Some seed money to get started would be nice but is not necessary. Being innovative, asking the community for support, finding donations and using your creativity can allow you to get what you need to begin. Never let money be the inhibitor for starting something so important. Anything is possible. Use your support network to seek out possibilities in your community for funding such as donations, school boards, program fees, or grants. TD Friends of the Environment Fund accepts applications for environmental education programs, to learn more, go to www.fef.td.com.

What is a good size for the program?

Make sure your numbers are manageable---both for safety and a healthy, happy education for the children. Although best practices and/or standards have not been determined here in Canada, this can be met with community and parent volunteers, as well as student placements. When determining ratios consider safety, Ministry requirements, your site, and how you can support rich learning in your environment.

Who is best suited to teach at a forest school?

Those with a passion for the outdoors, nature, children and their development. Those who are willing to grow alongside their students, and who are comfortable having more questions than answers! Comfortability in the outdoors and supporting children in play is fundamental (see section above on 'The Role(s) of the Educator'). To support and build educators theoretical and practical skills in regards to nature based programming, Forest School Canada now offers a certification course for educators, the "Forest and Nature School Practitioners' Course".

How do you do math and reading in the forest?

Any way you like! There are websites popping up all over the place that offer ideas around tactile learning of numeracy and literacy if you need some 'sparks'. Reggio Emilia education offers a number of ideas that cross transfer over to outdoor/nature education. When you remove a worksheet from the possibilities, you will find that you can start to think about hands-on learning that is motivating for students to learn. Learning journals are often used for documentation in FNS. Your 'classroom' is just a little larger than you are used to. Find other teachers that could act as mentors for you and see what resources they use.

Where will they go to the washroom?

This is partially dependant on the site you will be delivering your program, if it's in a public park or municipal land you will need to know their policies and guidelines. We also believe that training kids up for 'forest pee and forest two's' is important from the start. Not only is teaching technique important (especially for girls) but discretion, how to 'duck behind a tree' and 'leave no trace'. All of these skills will need to continue to be worked upon over the course of your year.

Infrequently Asked Questions

Why are we going outside?

This is often a question that is thought of initially when forming the mandate or vision behind a program but is not always on the forefront of thought when the program is up and running. It is useful question to re-visit as a way to check in to see if your practices are aligning with your vision. In what specific ways does going outside enrich the learning experience at hand? Are you drawing upon these? There will be times when learning indoors makes sense, don't fear that you are failing as a forest school teacher in this regard, rather seek the best place for the learning that you want to occur. It doesn't make sense to teach spelling the pouring rain to students with cold hands nor does it always make sense to study the river in the classroom, be thoughtful to how and why you are going outside or inside but don't feel the need to be exclusionary to one mode.

What is the theory behind the practice?

Many of the terms used to describe Forest and Nature Schools have a wealth of research and theory behind them. The words "experiential," "ecological," "inquiry-based," "sustainable" can mean different things to different people and their definitions have evolved and changed over time. It's useful to take the time to research some of these terms to decide for yourself how exactly you define them and how you see them fitting into your practice. Check out the Canadian Journal of Environmental Education, Green Teacher, Environmental Education Research Journal and other relevant resources to read some discussions around the theory that can help inspire you to move your practice in different ways. The field of environmental education has been around for 40 years and experiential, inquiry based learning has been around for decades so there is a vast library of important conversations to help support you in developing a Forest and Nature School.

What are ways to embody the ecological principles that you teach?

Try an experiment of looking at everything from the governance of the school, to the frames set up for learning, to the workload of the teachers to see how they align with the program's mandate. Are there ways in which you can try to "ecologize" the way work is distributed or how meetings are held or how decisions are made? Often in new projects, it's easy for staff to burn out or life to become hectic, think of ways in which you can support each other and the project to flourish. This may mean establishing ground rules for dialogue or keeping things small at first and slow in pace.

Who is absent, missing, quiet, silent?

This can be a more challenging question to ask of your program. Are there people who are unable to participate in your program because of financial or accessibility reasons? Drawing on your community investigate ways to reduce barriers for them, for example parents can create carpools or administrators may be able to set up scholarships to help minimize cost. What does the cultural diversity of your program look like? Actively pursue ways to include other worldviews, ecological strength comes from diversity. Are there voices within your community which are dominant and others which are often quiet? Seek ways to create more genuine dialogue. Does the natural world have agency in the program or is it more of a backdrop? Think of ways that the natural world could act as a co-teacher such that learning takes place directly from the river or tree itself.

What are other ways of doing this?

Don't feel the need to reinvent the wheel by yourself! Draw on the list of National Programs listed here in the guide and contact them to see if they are open to exchanging resources or available for a site visit. This is a burgeoning movement so many others are in the same boat as you, having moments of stress and elation as these programs gain momentum so draw on support networks, they are extremely useful in helping the moves forward to be meaningful and lasting.

Forest and Nature School Programs

A Sample of Canadian Forest Schools

Alberta

Name of Program: Alpenglow

Location: Early Childhood Programs (ECP) for 2-4 year olds: 617 Main Street, Canmore; Kindergarten to Grade 5 (K-Gr5): 1800 8th Ave Canmore

Size: ECP approx. 70 children; K-Gr5 approx. 90 children

Funding Source: *ECP:* Both private and public. Parents pay program fees and in September 2014 will receive funding assistance for staff from AB Human Services. We will be able to have families apply for subsidies in the near future. *K-Gr5:* Both private and public. The local school board funds teachers' salaries and basic building costs/insurance. Parents pay program fees to the non-profit Parent Advisory Group that administers additional services such as the Outdoor Education Assistants and all program supplies which are unique to Waldorf education and the nature approach that the program uses.

Ages: Preschool for 2-4 year olds and Kindergarten to Grade 6 (Gr 6 coming in 2015)

Description/Mandate: To connect our children with themselves, nature and community through an integrated nature-based approach to learning, inspired by Waldorf education. Four Pillars of the Program: Academic Excellence, Artistic Expression, Community Connectedness, Nature Immersion.

Email: info.alpenglow@gmail.com

Website: www.alpenglowschool.ca

Facebook: [Alpenglow-Community-School-Waldorf-Inspired-Outdoor-Education](https://www.facebook.com/Alpenglow-Community-School-Waldorf-Inspired-Outdoor-Education)

British Columbia

Name of Program: Educating Children Outside (ECO)

Location: Swan Lake Nature Sanctuary & Elk/Beaver Lake Regional Park, Victoria BC

Size: 72 students

Funding Source: Privately Funded

Ages: Preschool (3-5yrs)

Description/Mandate: Full year nature preschool program for ages 3-5yrs. Programs run half day 9am-12pm and are divided into 3's and 4's. ECO is based on community partnerships between the District of Saanich Parks and Recreation Department and both the Swan Lake Nature Sanctuary and the Capital Regional District Parks Department. Emphasis placed on development of ecoliteracy through emergent inquiry and play based curriculum with supplemental services provided by on site naturalist instruction.

Tel: 250-475-7100

E-mail: chris.filler@saanich.ca

Website: www.saanich.ca/eco

Name of Program: Foragers School of Nature

Location: Squamish, BC

Size: 5-20 per group

Funding Source: Privately funded

Ages: 3-12 year olds

Description/Mandate: Foragers School of Nature is a nature based educational service committed to providing nature connection for children through wilderness awareness practices and survival skills. We align our lessons with the natural curiosity of children, and the wonder and wisdom of our natural worlds.

Email: info@foragers.ca

Website: www.foragers.ca

Name of Program: Fresh Air Learning

Location: North Vancouver and Vancouver

Size: 7-10 children for preschool, 18 for elementary. Currently there are 70+ families involved in the preschool program.

Funding Source: Private (preschool) and public (elementary)

Ages: 3-6 year olds (preschool program) 5-12 year olds (elementary program)

Description/Mandate: Fresh Air Learning is a registered charitable organization that connects children to nature through play. Through facilitated and child-led outdoor exploration, children develop a relationship with each other and with the surrounding forest and farm environments. Activities are guided by the children's interests. Our elementary program also focuses on the development of traditional and homesteading skills in addition to outdoor play and exploration. We also run professional development programs for local teachers and early childhood educators.

Website: www.freshairlearning.org

Name of Program: Little Nest Forest Preschool

Location: Salt Spring Island, BC

Size: 6

Funding Source: Privately funded.

Ages: 3 - 5 years old

Description/Mandate: Our mission is to prepare children for academic and real world success, while teaching sustainability principles, building life skills, and demonstrating ecological awareness to children ages 3-5. We immerse children in local natural outdoor environments 2 days a week. Our educational approach comes from a blend of Waldorf based routine, and Reggio Emilia inspired child-led investigation. We believe a child's work is play. We teach with the goal of developing a relationship between children and our earth.

Website: www.littlenestforestpreschool.com

Program Name: Nature Kindergarten

Location: Sangster Elementary School, Sooke School District

Size: 22 children

Funding Source: Publicly funded

Ages: Kindergarten

Description/Mandate: Children are outside each morning in the adjacent Royal Roads University forest from 9-11:45. Dressed for the weather the children engage with the local landscape as a community of learners. The teachers build on the BC Kindergarten Curriculum using an emergent approach. Children connect with the other-than-human worlds found outside the classroom while being presented with other possible world views of the landscape. An Aboriginal Support Worker is present each week to share local traditional knowledge.

Website: naturekindergarten.sd62.bc.ca

Program Name: Saplings Outdoor Program

Location: West Vancouver

Size: 4:1 or 5:1 staff child ratio depending on the age group. Group size is 8-10 children.

Funding Source: Privately funded

Ages: 2.5-6 years old.

Mandate/Description: Saplings outdoor program is a nature-based program located in West Vancouver. The main purpose of the program is to provide children with an opportunity to connect with the natural environment in a

safe and enjoyable way. Nature is a child's best education.

Contacts: Heather Fraser and Jennifer Chan

Email: saplingsinfo@gmail.com

Website: www.saplingsoutdoorprogram.ca

Name of Program: Soaring Eagle Nature School

Location: Vancouver, North Vancouver, Delta and Coquitlam

Size: We currently have over 100 students enrolled in our year-long programs, as well as several families. We offer summer camp programs as well. Our staff to student ratio is no more than 1:6

Funding Source: Publicly funded

Age Group: 4-18 year olds

Description/Mandate: Our mission at Soaring Eagle Nature School is to empower people to discover and share their gifts through meaningful connections with the natural world.

Contacts: Jenna Rudolph, Soaring Eagle Nature School Co-Founder and Director

Email: jenna@SoaringEagleNatureSchool.org

Website: www.SoaringEagleNatureSchool.org

Name of Program: Terra Nova Nature Preschool (launching September 2014)

Location: Terra Nova Rural Park, Richmond, B.C., Canada

Size: 20 children per class

Funding Source: Not-for profit. Joint partnership between the City of Richmond, Thompson Community Association and the Richmond Schoolyard Society.

Ages: 3-5 years of age and school age programs in the future.

Description/Mandate: The mission of Terra Nova Nature Preschool is to connect young children with their community and the outdoor landscape by offering direct experiences with nature and gardening on the Terra Nova Rural Parklands. We believe that the whole community benefits when children learn to value and recognize our natural resources; participate in the cultivation of a local food system; and represent their knowledge, ideas and perspectives in a multitude of ways.

Contacts: Emily Vera & Kate Dawson Nature School Educators

Tel: 604-238-8437

Name of Program: Victoria Nature School

Location: Mt Douglas Park, Victoria, BC

Size: 25 families involved.

Funding Source: Privately funded.

Ages: 2 year old program and 3-5 year old program

Description: The Victoria Nature School is a non-profit, community based organization committed to inspiring a love of life-long learning through child-led play and exploration in nature. The Victoria Nature School offers preschool programs: full day and half day options, five days a week. The Victoria Nature School also designs programs for school age children and offers workshops for educators.

Website: www.victorianatureschool.com

New Brunswick

Name of Program: Tír na nÓg Forest School

Location: Roachville, New Brunswick (near Sussex)

Size: 10 children

Funding Source: Privately Funded

Ages: Preschool (4-5 year olds); Mom and toddler program starting in September 2014

Description/Mandate: Tír na nÓg Forest School is an extension of Lisa's Playhouse Children's Learning Centre in Roachville, New Brunswick. Lisa's Playhouse is in the country with a lovely wooded area behind us that we often visit with the children during our outdoor time (approx. 100 acres). We have picked fiddleheads, counted numerous Lady Slippers and collected tadpoles at our nearby pond. We also have a classroom garden where the children plant seeds, care for the plants and harvest in the fall. In September 2013, we opened the first forest school in Atlantic Canada!

Website: www.tirmanogforestschool.com

Ontario

Name of Program: Guelph Outdoor Preschool and Kindergarten

Location: The Guelph Outdoor Preschool is located on the 600 acre ecologically significant property of the Ignatius Centre, on Hwy 6 North, minutes from downtown Guelph.

Size: 50 students

Funding Source: Privately Funded

Ages: Preschool, Junior Kindergarten and Senior Kindergarten

Description/Mandate: Our fully licensed, full-day, year-round program for children 3-6 years old is based on current research of the best practices in early childhood education. The program uniquely combines a developmentally responsive curriculum, exceptional learning environments, optimal nutrition, and dedicated staff to help children reach their full potential. Through play and exploration in meadow, forest, stream, river, farm and garden environments we strive to constantly find meaningful ways for children to connect to each other, themselves, their community and the living world around them.

Tel: 519-265-8222

E-mail: info@guelphoutdoorpreschool.com

Website: www.guelphoutdoorpreschool.com

Name of Program: Maplewood Forest School

Location: Guelph, Ontario

Size: 2-12

Funding Source: Privately Funded

Ages: Preschool to grade 6 (3-12 year olds)

Description/Mandate: Maplewood Forest School is based in Guelph, Ontario, and is contracted by schools in this area to run Forest School programs. The vision of Maplewood Forest School is to provide a joyful outdoor education experience for young people, which allows them to learn about themselves, each other, and the world; feel good about their achievements and inspired to seek out new challenges at Forest School, in the classroom, and beyond; and develop a lasting connection to the natural world.

Website: www.maplewoodforestschool.ca

Name of Program: Tawingo College

Location: Huntsville, Ontario

Size: 16

Funding Source: Privately Funded

Ages: Pre-Kindergarten, Junior Kindergarten, Senior Kindergarten

Description/Mandate: The philosophy at the core of Outdoor Kindergarten is the belief that children are happiest, healthiest, and most open to learning opportunities when they are outside interacting with nature. Children in this program spend at least half of every day outside! Outdoor Kindergarten allows children to: think creatively; hone thinking skills; gain compassion for the planet; become more coordinated, agile, and physically active; and learn in a natural environment for

exploration, discovery, and inquiry. Outdoor Kindergarten is not Outdoor Education but Early Childhood Education that uses nature as its classroom.

Website: www.tawingcollege.net

Tel: 604-272-5023

E-mail: alderwoodinfo@shaw.ca

Website: www.alderwoodhouse.com

Quebec

Name of Program: Chelsea Cooperative Nature School

Location: Chelsea, Quebec

Size: 3 classes of 12 students each

Funding Source: Private- We are a co-op so our budget comes from tuition (covers salaries) and fundraising

Ages: Preschool- (3-5 year olds)

Description/Mandate: CCNS strives to create a community of resilient, active children, empowered by valuing, enjoying and being curious about their natural and social surroundings. We are a Forest preschool. Children attend for half days and the bulk of the programming happens outside with daily adventures to the forest, field, pond or creek.

Tel: 819-598-3133

Website: www.chelseacoop.ca

Name of Program: Environmental School Project

Location: Maple Ridge/Pitt Meadows BC

Size: 88 students

Funding Source: Publicly funded

Ages: 5 -12 year olds; Kindergarten through Grade 7

Description/Mandate: The theory and practice of the project is supported by Place-Based and Ecological Education. Learning and teaching will be through experience, in context, emergent and through activities that engage the mind, body, and heart. The project is based in principles of inquiry and inclusion. Teaching and learning will involve reconnecting the natural and human worlds.

Contacts: Clayton Maitland Principal

Email: environmentalschool@sd42.ca

Website: www.es.sd42.ca

Name of Program: Hazelwood Early Learning

Location: Port Coquitlam

Size: 16 spaces on a 3-5 License; 12 IT spaces; Out-of-school Care 20 spaces

Funding Source: Privately Funded

Ages: Approx. 12 months - 11 years old

Description/Mandate: Hazelwood Early Learning is a nature-based, early education program for children 0 – 5 years, as well as Out-of-School Care. Rooted in a Reggio-inspired philosophy and rights-based education, our goal is to nurture social emotional development.

Contacts: Pat McKay, Centre Administrator, Hazelwood Early Learning

Tel: 604-754-3712

Email: hazelwoodinfo@shaw.ca

Website: www.hazelwoodearlylearning.com

Canadian Alternative Nature Programs¹

British Columbia

Name of Program: Alderwood House School

Location: Richmond, BC

Size: IT License: 12 spaces; 3-5 License: 25 spaces

Funding Source: Privately funded

Ages: Approx. 12 months - 5 years old

Description/Mandate: Alderwood House is a nature-based, early education program for children 0 – 5 years. Rooted in a Reggio-inspired philosophy and rights-based education, our goal is to nurture social emotional development.

Contacts: Pat McKay, Centre Manager and Administrator, Alderwood House

¹ These centres asked to be placed under this alternative heading.

Name of Program: Davis Bay Nature Primary Program

Location: Davis Bay, Sunshine Coast, British Columbia

Size: 35 students

Funding Source: Publicly Funded

Ages: 5-8 years old (Kindergarten to grade 3, moving into grade 4 for the 2014-15 year)

Description/Mandate: Our goal is to grow green hearts and minds in children attending public education through offering hands-on, experiential learning opportunities in both the outdoor and indoor classrooms we explore. Inquiry, play, and child centred learning are all important pieces in our program while we continue to honour the B.C. curriculum and its guidelines for primary learning. Children and nature guide our lesson planning in this multi-age approach and we often find ourselves digging deep into our learning in the forest, at the beach or the estuary close to our home base.

Website: dbeweb.sd46.bc.ca Some news of our program is posted at our home school webpage and there is a link to our blog, which will be up and running in the 2014-15 school year.

Name of Program: Vancouver Forest Nursery

Location: Various locations through Vancouver, BC, primarily Stanley Park

Size: 100+ families with about a core group of 20+ active members

Funding Source: At this time we are 100% volunteer-driven and volunteer-run with all in-kind donations from members.

Ages: Children range in ages from 0-9. Our target group is children from 2-6 and their families, though children of all ages are welcome.

Description/Mandate: The Vancouver Forest Nursery was founded in 2012 to create opportunities for children and families to gather regularly in the forest (at least once a week). We believe that those who actively engage with the natural environment are more likely to become its stewards. We are a group of parents/adult caregivers and children who meet regularly for hiking and nature-based adventures in Stanley Park and beyond. In addition to our hikes, we meet regularly to discuss children's development and parenting approaches, have social gatherings to share skills and ideas and enjoy seasonal celebrations. The Vancouver Forest Nursery is free and open to all.

Website: www.vancouverforestnursery.org

Ontario

Name of Program: Discovery Child Care Centre

Location: Barrie, ON

Size: Harvie Road: Licensed for 99 children (2 acre property, visit nearby forest); Big Bay Point: Licensed for 54 children (1.5 acre playground, no forest)

Funding Source: Privately funded

Ages: 6 weeks-12 years

Description/Mandate: Discovery Child Care brings nature into the classroom and takes the classroom into nature, offering an environmentally aware foundation of early learning for children, from infants to school-age. We follow an Emergent Curriculum philosophy which means: your child will be provided with hands-on, play-based learning opportunities that will encourage active exploration, autonomy, choice, problem solving and plain old fun! Your child's individual interests, abilities and needs will be considered when planning our indoor and outdoor programs. Children are given the opportunity to interact daily with materials found in nature and in the process become thoughtful stewards of the earth we share.

Email: Karen (at) discoverychild.on.ca

Tel: 705-733-2052

Website: www.discoverychild.on.ca

Relevant Guides

- Back to Nature Network, Into Nature: A Guide to Teaching in Nearby Nature: http://www.back2nature.ca/wp-content/uploads/2013/11/B2N_Into-Nature_English.pdf
- Back to Nature Network, Stepping into Nature: Teacher Stories Volume 1: <http://www.back2nature.ca/wp-content/uploads/2013/11/Stepping-Into-Nature-2013June04.pdf>
- BC Ministry of Education, Environmental Learning And Experience: An interdisciplinary guide for teachers: https://www.bced.gov.bc.ca/environment_ed/environ_learning_exper.pdf
- Council of Outdoor Educators of Ontario, Reconnecting Children Through Outdoor Education, <http://www.coeo.org/images/stories/ReconnectingChildren.pdf>
- David Suzuki Foundation, Connecting With Nature: an educational guide for grades four to six: <http://www.davidsuzuki.org/what-you-can-do/connecting-youth-with-nature/#teachers-tab>
- Evergreen, Guides for Education, Community, and Family: <http://www.evergreen.ca/en/resources/>
- Forestry Commission England, A marvellous opportunity for children to learn: A participatory evaluation of Forest School in England and Wales: [http://www.forestry.gov.uk/pdf/fr0112forestschooolsreport.pdf/\\$FILE/fr0112forestschooolsreport.pdf](http://www.forestry.gov.uk/pdf/fr0112forestschooolsreport.pdf/$FILE/fr0112forestschooolsreport.pdf)
- Forestry Commission Wales, A Guide to Forest Schools in Wales: [http://www.forestry.gov.uk/pdf/ForestSchool-English2010-final.pdf/\\$FILE/ForestSchoolEnglish2010-final.pdf](http://www.forestry.gov.uk/pdf/ForestSchool-English2010-final.pdf/$FILE/ForestSchoolEnglish2010-final.pdf)
- Green Teacher, Teaching Green, GuideBooks: <http://greenteacher.com/books/>
- Learning Through Landscapes, The Good School Playground Guide (UK): <http://www.ltl.org.uk/pdf/The-Good-School-Playground-Guide1382978938.pdf>
- Ontario Ministry of Education, Ready, Set, Green! Tips, Techniques and Resources from Ontario Educators: <http://www.edu.gov.on.ca/eng/document/policy/readySetGreen.pdf>
- Nature Explore, Nature for Children. Every Day. Resource Guide 2014: <http://www.natureexplore.org/resourceguide.cfm>
- Parks Canada, Connecting Canadians with Nature: http://www.parks-parcs.ca/english/ConnectingCanadians-English_web.pdf
- Play England, Design for Play: A guide to creating successful play spaces: <http://www.playengland.org.uk/resources/design-for-play.aspx>
- Project Wild, Growing Up WILD Guide: <http://www.projectwild.org/growingupwild.htm>
- Resources 4 Thinking, Step Outside – Your Guide to Nature’s Event: <http://resources4rethinking.ca/en/step-outside/>
- Simon Fraser University, Imaginative Ecological Education - Teacher Resources: <http://www.ierg.net/iee/teacher-resources/>
- University of Toronto, OISE - Institute of Child Studies, Natural Curiosity Guide: <http://www.naturalcuriosity.ca/aboutus.php?m=b>
- Wild Wanderers, Forest School Handbook: http://www.wildwanderers.co.uk/pdf/wild_wanderers_forest_schooling_handbook.pdf

Forest and Nature School-Friendly Organizations

North American Organizations

- Alberta Council for Environmental Education: <http://abcee.org/>
- Back To Nature Network: <http://www.back2nature.ca/>
- Canadian Network for Environmental Education and Communication (EECOM): <http://www.eecom.org/>
- Canadian Wildlife Federation: <http://cwf-fcf.org/en/explore-our-work/education/>
- Cedar Song Nature School: <http://cedarsongnatureschool.org/>
- Centre for Ecoliteracy (USA): <http://www.ecoliteracy.org/>
- Child and Nature Alliance of Canada: <http://childnature.ca>
- Children and Nature Network (USA): <http://www.childrenandnature.org/>
- Council of Outdoor Educators of Ontario: <http://www.coeo.org/>
- David Suzuki Foundation's Connecting Youth With Nature Initiative: <http://www.davidsuzuki.org/what-you-can-do/connecting-youth-with-nature/>
- Earth Day Canada EcoKids: <http://www.ecokids.ca>
- Earth Rangers: <http://www.earthrangers.com/>
- Environmental Education Ontario: <http://www.eeon.org/>
- Forest School Canada: <http://www.forestschoolcanada.ca/>
- Green Hearts Institute for Nature in Childhood: <http://www.greenheartssinc.org/>
- Humming Hive Nature Immersion Program : <http://www.humminghive.org/>
- KidActive <http://www.kidactive.ca>
- Manitoba Nature Action Collaborative for Children (MNACC): <http://www.naturesummitmb.com/>
- Mother Earth School: <http://www.motherearthschool.com>
- Nature New Brunswick: <http://www.naturenb.ca/>
- National Association of Friendship Centres: <http://nafc.ca/friendship-centres/>
- Nature Quebec: <http://www.naturequebec.org/accueil/>
- Natural Start Alliance: <http://naturalstart.org/>
- North American Association of Environmental Education: <http://www.naaee.net/>
- Ontario Society for Environmental Education: <http://home.osee.ca/>
- P.I.N.E. Project: <http://www.pineproject.org/>
- Québec'ERE: <http://www.quebec-ere.org/index.html>
- Resources for Rethinking - Learning for a Sustainable Future: <http://resources4rethinking.ca/en>

- Saskatchewan Outdoor and Environmental Education Association: <http://www.soeea.sk.ca/>
- Soaring Eagle Nature School: <http://soaringeaglenatureschool.org/>
- Sustainability Education Alliance of New Brunswick: <http://www.nben.ca/en/collaborative-action/collaboratives/sea-nb>
- Uniterres Conférences: <http://www.uniterreconferences.com/>
- World Wildlife Fund Canada - Schools for a Living Planet: <http://schools.wwf.ca/>

International Organizations

- Council for Learning Outside the Classroom (UK): www.lotc.org.uk/fen
- EarthPlay / Rusty Keeler (USA): <http://earthplay.net/articles-handbooks/>
- Forest School Association (UK): <http://www.forestscholassociation.org/>
- Forest Education Initiative (Scotland, UK): www.foresteducation.org/woodland_learning/forest_schools/
- Forestry Commission (Wales, UK): www.foresteducation.org/woodland_learning/forest_schools/
- Forest Education Initiative (UK): <http://www.foresteducation.org/>
- Forest School Wales (UK): www.forestschoollwales.org.uk/
- German Waldkindergartens & Forest Schools: <http://creativestartlearning.co.uk/early-years-outdoors/waldkindergarten-forest-kindergarten-in-germany/>
- Kindling Forest School (UK): <http://kindlingplayandtraining.co.uk>
- Mindstretchers / Claire Warden (Scotland, UK): <http://www.mindstretchers.co.uk/>
- National Wildlife Federation: <http://www.nwf.org/What-We-Do/Kids-and-Nature.aspx>
- Natural England (UK): <http://www.naturalengland.org.uk/>
- Project Wild Thing - The Wild Network (UK): <https://projectwildthing.com/thewildnetwork>
- Swedish Forest Schools: http://www.friluftsframjandet.se/c/document_library/get_file?folderId=39265&name=DLFE-5521.pdf
- World Forum Foundation Nature Action Collaborative for Children: <http://www.worldforumfoundation.org/working-groups/nature/>

Books, Websites, News Stories

Websites Promoting Nature

- Active Kids Club: <http://www.activekidsclub.com/>
- Bienenstock Natural Playgrounds: <http://www.naturalplaygrounds.ca/>
- Green Teacher: <http://greenteacher.com/>
- International School Grounds Alliance (Global): <http://greenschoolyards.org/home>
- Kid Active: <http://kidactive.ca/>
- Let's Go Outside Revolution: <http://www.letsgooutsiderevolution.com>
- Nature Rocks - Activities (USA): <http://www.naturerocks.org/>
- Ontario Children's Outdoor Charter: <http://childrensoutdoorcharter.ca/>
- Project Wild (Canada): <http://cwf-fcf.org/en/discover-wildlife/education/for-educators/project-wild.html>
- Project Wild (USA): <http://www.projectwild.org/>
- Rethinking Childhood / Tim Gill: <http://rethinkingchildhood.com/no-fear/>
- Woodland Trust (UK): <http://www.naturedetectives.org.uk/>

Books Promoting Forest & Nature Learning

- Carson, Rachel. *The Sense of Wonder*.
- Chawla, L. (1999). Life paths into effective environmental action. *The Journal of Environmental Education*, 31(1), 15-26.
- Constable, Karen. *The Outdoor Classroom Ages 3-7: Using Ideas from Forest Schools to Enrich Learning*.
- Honoré, Carl. *Under Pressure*. <http://www.carlhonore.com/books/under-pressure/>
- Louv, Richard. *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder*.
- Louv, Richard. *The Nature Principle*.
- Nabhan, G.P. & Trimble, S. *The Geography of Childhood: Why Children Need Wild Places*.
- Pelo, Ann. *The Goodness of Rain: Developing an Ecological Identity in Young Children*.
- Sobel, David. *Childhood and Nature: Design Principles for Educators*.
- Walker Leslie, Clare. *The Nature Connection: An Outdoor Workbook for Kids, Families, and Classrooms*.
- Young, J., Haas, E., McGown, E. *Coyote's Guide To Connecting With Nature*. <http://www.coyotesguide.com/>
- Forest School Association Reading List: <http://www.foreschoolassociation.org/reading-list/>
- Cedar Song Nature School Reading List: <http://cedarsongnatureschool.org/resources-and-links/links/>
- Knight, Sara. Publications on Forest School: http://www.anglia.ac.uk/ruskin/en/home/faculties/fhsce/about/staff/a-z/sara_knight.html

Books Promoting Aboriginal Perspectives on Nature Learning

Please see References for further recommended reading

- *Keepers of the Earth: Native Stories and Environmental Activities for Children* by Michael J. Caduto and Joseph Bruchac;
- *Rainbow Crow* by David Bouchard;
- *Sky Sisters* by Jan Bordeau Waboose;
- *The Elders are Watching* by David Bouchard;
- *The Rough-Face Girl* by Rafe Martin and David Shannon;
- *Thirteen Moons on Turtle's Back* by Joseph Bruchac and Jonathan London;
- *The Gift is in the Making* by Leanne Betsamosake Simpson (for older learners).

News Coverage Promoting Nature Learning & Play

North America

- CBC News, *Sussex-area pre-school launches Atlantic Canada's first 'forest school'*: <http://www.cbc.ca/news/canada/new-brunswick/sussex-area-pre-school-launches-atlantic-canada-s-first-forest-school-1.1410790>
- CBC News, *Kids need to offset 'screen time' with 'nature time'*: <http://www.cbc.ca/news/health/kids-need-to-offset-screen-time-with-nature-time-1.2543165>
- CBC Vancouver, *Can playgrounds be too safe?*: <http://www.cbc.ca/thesundayedition/essays/2014/03/28/do-safe-school-yards-increase-bullying/?cmp=fbtl>
- CBC Vancouver, *The role and effect of Nature in growing up*: <http://www.cbc.ca/daybreaksouth/2013/12/19/the-role-and-effect-of-nature-in-growing-up/>
- Maclean's Magazine, *Early education: this is not a field trip*: <http://www.macleans.ca/society/life/this-is-not-a-field-trip/>
- Market Wires, *Canada's First Forest Preschool to Launch in Ottawa Valley*: <http://www.marketwired.com/press-release/Canadas-First-Forest-Preschool-to-Launch-in-Ottawa-Valley-905166.htm>
- National Post, *Alberta 'Forest School' gets students out of stuffy classrooms for lessons on the practicalities of life*: <http://news.nationalpost.com/2013/09/13/alpenglow-community-school/>
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- Yes! Magazine, *You Can't Bounce Off the Walls If There Are No Walls: Outdoor Schools Make Kids Happier—and Smarter*: <http://www.yesmagazine.org/issues/education-uprising/the-original-kindergarten>

Possible Funding Sources

Canada

- The North Face Explore Fund Canada: <http://explorefund.ca/>
- TD Friends of the Environment Foundation / Focus on Forests, Building Outdoor Classrooms: A guide for successful fundraising: http://www.focusonforests.ca/files/TD_Outdoor_Classroom_Guide_ENG_FINAL.pdf
- Majesta Trees of Knowledge Competition: <http://www.majestatreesofknowledge.ca/Message/Winner>
- Evergreen: <http://www.evergreen.ca/>
- Mountain Equipment Coop Community Contributions:
- RBC Learn to Play Fund: <http://www.rbc.com/community-sustainability/apply-for-funding/index.html>
- Tree Canada: <http://treecanada.ca/en/>

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