

Value of Outdoor Education and Healthy Child Development *Want Healthier Kids? Let them Play Outdoors!*

In our busy lives it can be difficult to schedule time for our children to be in the natural world; however, the outdoors provide numerous health and physical literacy benefits while also nurturing pursuits that encourage physical activity for life. Through engaging activities and games, learn how the outdoors can be used to diversify training for sport, enrich education outside of the classroom, and promote recreation at home. We may seek to perfect our indoors, but the outdoors was once and is always our home . . . and therein we learn and grow more wholly.

Aaron Staples, Outdoor Education Instructor, Ganaraska Region Conservation Authority

Aaron wants students of all ages to become engaged in the outdoors. By laughing and interacting with the outdoor environment, Aaron believes that we create a connection with the Earth that will foster wonder, passion, and stewardship for its care. In doing so, we also ensure our own care.

Aaron is an outdoor instructor for day and residential visits to the Ganaraska Forest Centre and is a co-director of the GRCA's Nature Nuts Summer Camp. He specializes in the development of new programs incorporating both technology and traditional knowledge. Aaron holds an Honours and Masters degree in Human Biodynamics from McMaster University, a teaching certificate specializing in Outdoor Education from Lakehead University, and an instructors certificate for the National Green Check GPS and GIS Certification Programs. When he is not teaching, he can usually be found hiking or paddling somewhere in Ontario with his family and camera close at hand.

Session Outline

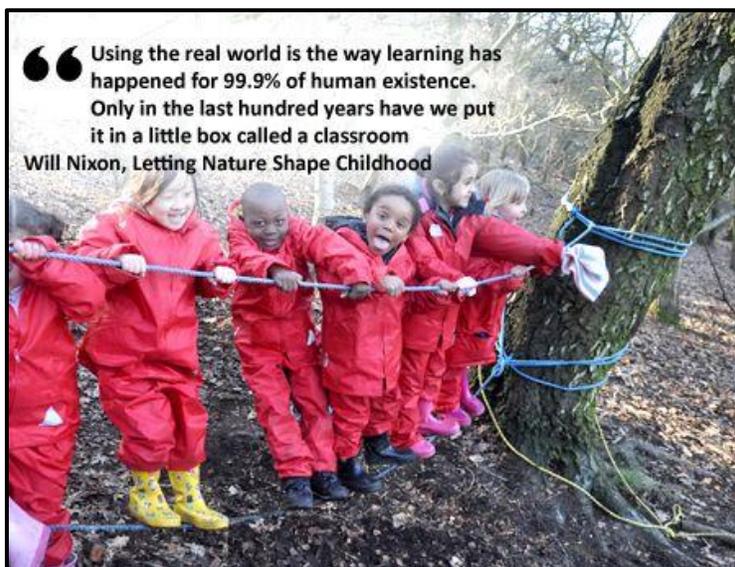
1. Stakeholder Showdown (Game)
2. Benefits of Nature – Storytime: The Bears We Know
3. Time in Nature – Storytime: Personal Experience
4. Different Programs for Different Applications and Outcomes
 - Me Spot – Restorative Activity or Creativity Outlet
 - Fox Walk – Directed Movement Development
 - Bowline Jousting – Lifelong Physical Activity
 - Space for Species – Spatial and Situational Awareness with the Head Swivel
5. Technology in Nature
 - Lessons from our GPS Program Tracking
 - Lessons from Pilot Work with the MOE

1. Stakeholder Showdown (Game)

This is a version of the game *'Creating Win-Win Solutions'* which is outlined below. In this version, the intent is to show the conflict that arises when a common resource has the vested interest of multiple stakeholders. It may be an environmental resource, such as the Ganaraska Forest, in which the needs and wants of a neighbouring landowner varies from that of a motorized recreational user which varies from that of a conservation authority, and so on. In this version, I use trees, model buildings and model cars as the item objectives, but also sprinkle some toy animals into the playing field and watch them get trampled. In the presentation version, I sprinkled some toy children into the game space. Just as we have the best intentions for our children in mind when planning their activities, we can sometimes lose sight of some of their important needs. Within a rigorous schedule of homework, a hockey game and guitar practice, have we left any time for family, community, or nature? Each of the latter has important developmental outcomes that cannot be replaced by those of the former.

Storytime

I concluded with a personal experience with a student. This particular Grade 6 girl could answer any question about nature that I posed during a guided nature hike. Her classroom teacher became increasingly dumbstruck by the student and commented to me that this particular girl did not participate in class including phys ed. She always seemed distant and unreachable. At the end of the hike I asked the girl how she knew so much about nature, and she replied that every weekend she would take a walk with her grandfather. Sometimes the potential of a child or person simply needs to be recognized in a different context. In the eyes of her teacher, this girl's potential was entirely defined by the experiences inside the classroom. I would argue that nature is an environment that has something for all. It offers intellectual stimulation, avenues for creativity, a chance to breathe, a chance for an adventure, and so much more.



Creating Win-Win Solutions: *To demonstrate how to manage conflict by turning it into cooperation.*

This activity can be completed indoors with chairs or outdoors with pylons. This instruction set will be for the outdoors version. Print and cut many sets of the instructions (A,B,C) . . . in all, each participant will need one of the instruction sheets (A,B, or C). Place a number of pylons throughout the playing space.

Split the group in half. One half will participate in round 1, the other half will observe and try to apply any lessons learned from their observations to their attempt in round 2. Tell all participants that this is a silent game. Each person's objective is to try and fulfill their own individual goal that is outlined on their instruction sheet. Give each participant for round 1 their own instruction sheet (A,B, or C). The students should not show their instructions to the other participants.

The Objectives:

1. Put all the pylons in a circle. You have 5 minutes to do this.
2. Put all the pylons near a tree. You have 5 minutes to do this.
3. Put all the pylons near the hula hoop. You have 5 minutes to do this.

Give the participants 5 minutes and see what happens. There will likely be mass confusion with lots of competition as each individual tries to accomplish their own goal, in spite of the reality that they could cooperate to achieve all goals simultaneously. Do not give this hint to the people in round 2, but allow the participants for round 2 discuss what they observed before they begin their attempt. They may pick up on one or two things that will assist their performance. Repeat the process for the participants of round 2. There are lots of discussion points for this activity.

- The instructions cannot be carried out unless people with identical instructions cooperate. The sub-groups cannot carry out all of their instructions unless they cooperate.
- There are several possible solutions:
 - o Putting all of the pylons in a circle, between the hula hoop and a tree.
 - o Consecutively, putting all the pylons in a circle, then near the hula hoop, then near the tree
 - o Disobeying part of the instructions, by putting one third of the pylons in a circle, one third near the hula hoop and one third near a tree

What did you experience while playing this game? Did you feel that the pylon you were working with was yours, to do with as you pleased? How did you relate to people who wanted something else? Did you cooperate, persuade, argue, fight, or give in? If you confronted others, how did you do this? Why did you interpret the instructions as you did? Did you feel that the instructions must be carried out no matter the cost and to the exclusion of others? Did your culture influence the way that you behaved in this situation? How is this exercise relevant to peer-mediation?

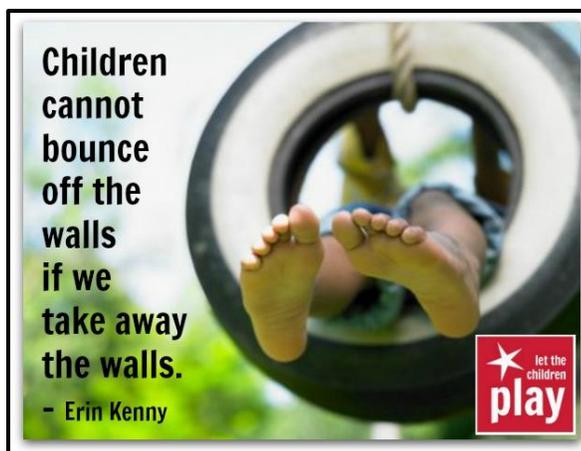
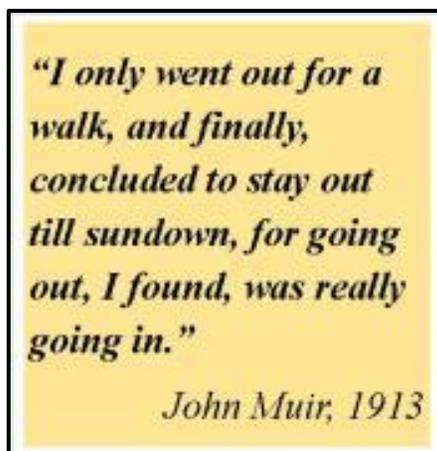
2. The Benefits of Nature (Story Time)

Participants were asked to find a comfortable spot next to some trees with the option of shade or sun and a cushioned seat if desired. Participants were asked to clear all thoughts from their head while I read a picture book story. The intent was not to derive meaning from the story. The goal was to let the words wash over and to become immersed in the sensory experience of the location. The story read was *'The Bears We Know.'*

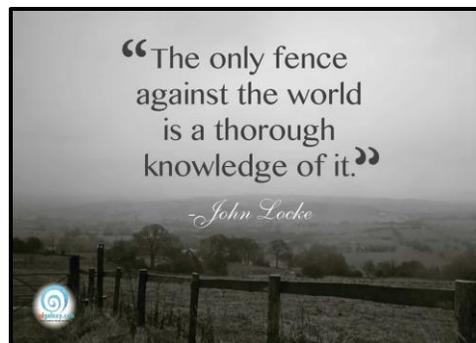
At the conclusion of the story, participants were asked how they felt. There was largely consensus that all felt relaxed. This was used to demonstrate the effect our true home (aka nature) has on our minds and bodies. A survey of research was used to illustrate the benefits of time in nature, including:

- Reductions in stress and anxiety amongst children and adults
- Reductions in anxiety amongst children with anxiety disorders
- Increased focus and attention amongst children with ADHD and ADD
- Reduced stress in office workers with windows overlooking nature and even simply pictures of trees
- Etc (and ever-expanding)

However much we may perfect the indoors, the outdoors was once and is always our home. Our health is intrinsically tied to our connection with this home.



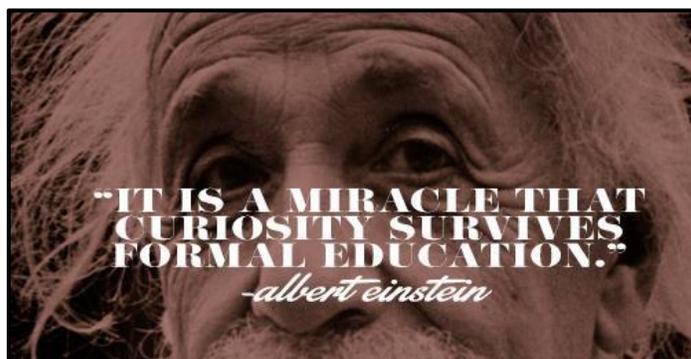
The final line of this particular book is: "People ask us how we know so much about the bears when we have never even seen them. Well, there are some things you just know." I like to use this line to discuss the elements of risk in outdoor education. We must acknowledge that there is some risk, prepare to mitigate that risk, and ensure that we do not encourage surplus risk. But when planned and adjusted appropriately, the cascading benefits typically outweigh the infrequent risks.



3. Time in Nature (Story Time)

In this day and age, it can be very easy to get caught up in the search for that perfect moment for our children. But in nature, perfect moments can just happen. It can be spontaneous.

In taking my first born on his first canoe trip, I was transfixed on visiting a cold water stream not far from the beach launch. I looked forward to spending a day splashing in the shallow sandy pool below cascade. But a couple strokes into the journey, the screaming echoing off the river made it clear that it was not to be. He didn't like his life jacket one bit. We returned dejected to the beach, and set up day camp with the canoe unused. But my son spent the next couple hours loving every minute of the hammock. Swinging around and climbing inside. Hiding inside to play peekaboo with passing people and birds. Filling it up with pinecones and then tossing them overboard. All of his own creations. A beautiful aspect of nature is just that: freedom.



4. Different Programs for Different Applications and Outcomes (Games)

- Me Spot (Activity):** The picture book story activity above was a modified Me Spot activity. In the Me Spot, one is asked to go out into nature and find what is, for them, the perfect spot to just sit, clear their thoughts, and observe. Once they have settled into their spot, they are asked to sit quietly for a defined period of time. Depending on the program, it may simply be 2 minutes but could be much longer. Some will struggle to be still and quiet, others may become emotional, and some will love it. This can be used to open up a number of different discussions/debriefs. What did you see? Hear? Notice?

Think about? But it can also be used creatively. Revisit the same spot and watch how it changes through the seasons. Ask that the students create something in that spot from the materials at hand. Challenge them to gain some intimate knowledge of the location or a species living there. This is a great activity for self-directed inquiry, creativity, and reflection. And it is largely internally-driven. It accentuates the benefits of free time in nature. Sometimes, all we need to give is some time.

- **Fox Walk (Activity/Game):** This is a directed movement skill activity. It is based on the Aborigine style of walking in order to creep up on animals or other people without being heard. There is an emphasis on foot placement, such that the heel will lightly strike the ground, and the weight is gradually applied to the foot by slowly rolling over the side of the foot and up to the toes. The intent is to stop this movement if any sound is heard (twig snapping, etc), to raise the foot back up, and find a new spot to place the foot. When combined with a widespread and crouched position (to lower the centre of gravity and prevent swishing of clothing), this is effectively a silent movement pattern among those well-versed. Once the movement was practiced, one blindfolded participant was asked to protect their 'nest of eggs' (beanbags) by swatting at thieves with a pool noodle. The rest of the participants gathered in a circle around the defender (Mama Goose), and when a thief was selected by the leader, the thief attempted to silently sneak in to steal an egg. If hit by the defender, the thief returned empty-handed to their spot on the circle. The round continued until all eggs were stolen.
- **Bowline Jousting (Activity/Game):** This is a directed movement skill activity that emphasized the opportunities for lifelong activity that arise through the learning of a particular movement skill – the ability to tie a knot opens the door to activities such as camping, sailing, etc. Each participant was given an 8 foot piece of rope. The end with black tape was held in their dominant hand (working end). The non-dominant hand held the other end of the rope so that 2-3 feet of rope dangled beyond the hand (standing end). Participants were talked through the process of tying a bowline knot around themselves using the working end of the rope in their dominant hand. Verbal cues for each step: punch out the window, punch yourself in the stomach, wrap the tree, and remove your hand. To finish the knot properly, you must then pull on the standing end of the rope firmly. When finished, the knot will loosely resemble someone wearing a collared life jacket. When confident in tying this knot, participants partnered up, tied their standing ends together, and raced to tie the knot. If you finished your knot first, when you pulled on the standing end to finish the knot, it will have locked your opponent's hand inside their knot, preventing them from finishing the knot.
- **Space for Species (Game):** This game was used to illustrate an effective use of an outdoor game for experiential learning outside of the classroom. It is also a game that highlights spatial and situational awareness, an ability that often separates athletes of greater and lesser skill. Watch for the head swivel and change in movement strategy in the second round. Four large rope circles were placed on the ground in an approximately box-shaped orientation with 10-20 feet between each circle. A bag of coloured popsicle sticks was placed within each rope circle, in which each circle had a bag of differently coloured popsicle sticks (red, green, blue or yellow). The circle represented a habitat island, that is a small section of forest that the participants as cute fluffy animals needed in order to survive. Unfortunately, each island was too small to give them all their survival needs, and in order to survive, they needed to travel between the islands (circles) to retrieve their survival needs (blue sticks = water, green = food, etc). Each habitat island was surrounded by pavement, that is, roads that cars (1/4 of participants) patrolled trying to hit the travelling animals. The animals were instructed to collect 2 of each coloured popsicle stick in order to survive the timed round, collecting 1 popsicle stick per trip into a circle. If tagged by a car, they must give up all their sticks

and start again. The first round was played. In the second round, lengths of rope were placed on the ground to represent habitat corridors that the animals could safely navigate without being hit by a car – this represents the treed overpasses along the highways in the Rockies. Play the second round. In addition to demonstrating the effects of habitat islands, habitat sizes, and habitat corridors (etc), what will be seen is that the animals move much more methodically in round 2. It is no longer a one-track dash between the circles. There is a plan with back-up plans that initiates with feedback on the cars' movement. The head begins to swivel to scan the surroundings. Movement occurs only when it is safe. Retreats will occur if the safety assessment changes. This situational awareness is important in high performance sport and separates athletes of different skill levels.



5. Technology in Nature

A final activity was completed in which participants used a GPS unit to hide and find a playing card. This may seem to conflict with the image above because technology is so often thought to be a detriment to the experience of nature; however, a large part of the present-day issue is that kids are so entranced by technology (for a variety of reasons) that they simply do not get outside to begin with. At the GFC, we may have as little as 1.5 hours with our students before they return to their routines. To have an impact in such a short period, we want students to be

excited to go outside. If the technology needs to be that driving force, we hope that this first connection will spur further opportunities, and that maintaining this contact over time will encourage outdoor time without a screen. Moreover, GPS training in and of itself is an opportunity to take classroom learning outside (very effective for science and biology but also many other subjects if creative) and to impart some skills that are valuable for safety in the outdoors (wilderness travel, etc) and potential vocations down the road (GIS analyst, etc).

Lessons from GFC GPS Programs: In our standard 2 hour GPS program block, every participant travels at least 1.5 km. Many will travel almost 3 km. If we play the GPS Hunger Games, many students will travel more than 5 km in the 3 hour program block. All this travel while intimately learning about: GPS and satellite technology, interference of signals, tracking behaviour, and the many applications of GPS technology. Students also gain navigational skills and competence and confidence with technology. But as importantly, the students have an adventure in the outdoors. It is hoped this adventure will spur future adventures.

Lessons from our Pilot Work with the Ministry of Education: We have completed a number of pilot projects via the Ministry's funding for experiential education. Our programs have highlighted the application of technology to teach science and geography curriculum in the outdoors. We have completed projects that explore watersheds by getting into the water and invasive species by wandering through our forest. Data collection and reporting are fundamental to learning from the pilot work being completed. Although the intended measurements centre on student learning behaviours, some free form answers have offered an unintended but perhaps expected result: students want to be outside and they value these opportunities in their education. As an example, in response to the question "What did you enjoy about this program?," 85% of respondents indicated that they enjoyed being in or around water in our watershed program. Most of the respondents also indicated that this made their learning more memorable and meaningful. In this particular program, only one of 33 students indicated that they preferred learning inside the classroom compared to the experiential outdoor program that they completed. Moreover, not one student indicated that the technology was their favourite part of the program.

Our Goal in Outdoor Education for a Conservation Authority: Take it outside!

