About GEOEC

The Global, Environmental & Outdoor Education Council (GEOEC) is an interdisciplinary specialist council of the Alberta Teachers’ Association. Our mission is to provide resources and venues for dialogue and networking, as well as to promote quality professional development for Alberta teachers in the area of global, environmental and outdoor education. Members receive current news items, teaching ideas, information about our workshop series and food for thought through our journal, Connections. We are also active on Facebook (www.facebook.com/geoecalberta) and Twitter (@GEOEC), where current information on PD opportunities and initiatives in Alberta can be found.

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Cover photo: Kindergarten students at Lois E Hole Elementary School, in St Albert, Alberta, explore their surroundings and build relationships with each other and the environment in the school’s community garden beneath blooming sunflowers full of bees!
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President’s Message

First and foremost, I must acknowledge what a year this has been. I know I certainly felt anxious about going into this year with so many unknowns, but at the same time I was excited about seeing students again and the possibility of going on an adventure with them. Despite all of the challenges, hoops, roadblocks and detours that we educators have had to navigate this school year, we have managed to not only get through it but also plan and implement an extremely impactful year for students. Once again, in the fall we had no idea what was ahead, but classrooms became a place of learning, laughter, excitement and inquiry. Some of you have made this look very easy when we know very well that it has not been.

The executive team of the Global, Environmental & Outdoor Education Council (GEOEC) has been working hard this year to help support teachers provincewide. From workshops to webinars to speaker series and conventions, GEOEC has had a great year despite all the challenges faced during this ongoing pandemic. Hosting multiple events each month, the executive team worked extremely hard to provide a wide variety of experiences and opportunities for all members provincewide. We even took our virtual campfires nationwide by teaming up with Take Me Outside. We hope that you were able to attend one or more of the events, and we look forward to having you attend more this year.

I encourage you to be in touch with the executive team if you need any form of professional development in your school division. We would love nothing more than to host an event in your area and provide support on the topics of global, environmental and outdoor education.

Personally, I am thankful that schools were once again able to capitalize on taking kids on off-site experiences and field trips throughout the province. Getting to the mountains and exploring again has been beyond uplifting for students and teachers, and so beneficial to our mental health. It really was strange last year to not explore or take students out of the city. This year I have seen our students and parent community appreciate even more what these off-site opportunities can provide.

The students devoured opportunities and adventures, and just wanted to be connected. Getting students to believe in themselves, their communities and one another can be a tough lesson to teach but one that pays off in unmeasurable ways.

What does the second half of this year hold? (Yes, I am actually writing this in January as we are working from home awaiting the in-person or online decisions from the government). It promises many unknowns for sure, but one thing I do know is that no matter what these final months throw at us, educators will continue to work extremely hard to make memorable experiences, adventures and lessons within the constraints that are pushed our way. We can all do this together and will continue to be the best teachers we can be for our students. It’s who we are!

I would like to take this time to thank each and every GEOEC executive council member for all their time, dedication and effort put forth to help inspire and support teachers provincewide. This council would be nowhere near our target today if it wasn’t for this inspiring team. Surround yourself with inspiring, hardworking and amazing people, and the incredible results that will produce won’t surprise you. I could not ask for a better team of educators to work with on a daily basis. Our team would love to help your school, community and teachers further with resources and professional development. If there is a need for GEOEC sessions at a convention, conference or PD event near you, please contact us so we can plan for the future.

Please keep up to date by following us on Twitter, Facebook and Instagram. Do not hesitate to send us a note with any questions you may have. A huge thank you to all teachers provincewide for your amazing work in your communities. Best of luck with all your adventures. I hope to see you on the trails very soon.

Court Rustemeyer
The Global, Environmental & Outdoor Education Council of Alberta (GEOEC) has always felt honoured to represent Alberta’s teachers, striving to create resources and celebrate the amazing educational work that is being done in our province. This past year, we have continued to strengthen our position as a go-to organization for global, environmental and outdoor education and awareness despite current external challenges. By external challenges, we are referring mainly to COVID-19. The global pandemic has seemingly flipped our whole world upside down. This situation has brought many things to light, especially the fact that outdoor education and all related activities are an essential element in the development of students’ abilities to adapt and rise to current challenges. Many educators are now using outdoor education to promote positive mental health and provide rich meaningful learning.

This issue of Connections contains an informative and thought-provoking selection of articles that we are pleased to offer our readership. We have created a forum for authors, both new and established, to inspire readers with research-based evidence, thoughts, philosophies and shared experiences. Included in these pages, you will find the usual collection of new ideas, reflections on professional practice and research in action as well as information about professional development initiatives and resources that GEOEC provides its members.

We hope you enjoy this issue of Connections, and we welcome both your feedback and your consideration of contributing an article or granting an interview in the future! Happy reading.

Alison Katzko loves the arts and exploring. She currently teaches Grade 4 in Calgary, Alberta, and previously taught in Bhutan, Thailand, and the United States. She values developing a passion for the natural world through greater understanding of Indigenous and land-based knowledge. Her students have connected with explorers and scientists worldwide, including through the National Geographic Educator-Explorer Exchange. She has been recognized as Canadian Geographic Teacher of the month and ESRI ambassador of the month. She is passionate about getting her students outside regularly to engage in meaningful learning.

Abi Henneberry currently teaches full-day English kindergarten at Lois Hole Elementary School, in St. Albert, Alberta, where she has also taught K–6 nature education. She completed the initial Explorer Mindset course through National Geographic and continually uses it as a platform for teaching and collegial inspiration. Abi is an avid outdoor enthusiast who enjoys equestrian activities, camping, hiking, snowshoeing, cross-country skiing, kayaking and cycling. Abi is certified as a level 1 field leader in hiking, winter and overnight activities through the Outdoor Council of Canada. She currently volunteers with the Little Bits Therapeutic Riding Association, in Edmonton, and is pursuing certification with the Canadian Therapeutic Riding Association. Her plan is to combine her background in education with her love of the outdoors and equestrian experience for the benefit of others in the future.

Submissions Information

If you would like to share resources, topics or ideas with fellow educators, we would love to hear from you! We especially seek lesson ideas and stories about your adventures with students.

Articles can be submitted year-round. When e-mailing submissions, please include the story or article, any artwork or photographs with permission forms, your mailing address and a short biography.

Consent is required to publish personal information about an individual. For more information, please see Publishing Under the Personal Information Protection Act at the end of this issue.

Send submissions to connections@geoec.org.
GEOEC Business and News

Project WILD Training

Project WILD is a wildlife-focused program for K–12 educators and their students. Since 1984, Project WILD has been a model for WILD Education programs in Canada. Throughout the year, GEOEC provides free educator certification training for members. Based on educational standards, developed by scientists, and reviewed and field tested by educators, Project WILD is always a hit with educators who are looking for useful resources and ideas.

What It’s All About

Through the training course, participants will learn how to use the interdisciplinary activity guide, which features 121 lesson plans on wildlife and the environment that can be adapted for any age, grade level or subject. The active lessons cover the following topics and concepts:

• Adaptation
• Carry capacity
• Food webs
• Habitat
• Life stages and life cycles
• Renewable and nonrenewable resources
• Succession
• Symbiosis, commensalism, mutualism and parasitism

Why You’ll Love It

Project WILD helps learners develop the awareness, knowledge, skills and commitment needed to make informed decisions; take constructive action; and advocate for wildlife, habitats and the environment.

The activity guide has been adapted for a Canadian context by the Canadian Wildlife Federation and brought to you under a joint agreement with the Association of Fish and Wildlife Agencies in the United States.

The guide can be used by classroom teachers and other educators (including resource specialists, conservation officers, camp counsellors, and Scout and Guide leaders). It contains all the information needed to successfully plan and run activities with students, including objectives, methods, background information, lists of materials, procedures, evaluation suggestions, activity extensions and key vocabulary. The activities are designed to enhance learning in mandated curriculum subjects such as art, health, English language arts, math, music, physical education, science and social studies.

Ready to go WILD? You can obtain the Project WILD activity guide by participating in an introductory workshop, where you will become a certified WILD educator. If you are interested in attending a workshop, please visit the GEOEC website (www.geoec.org) for upcoming dates.
ALBERTA OUTDOOR PLAYLIST
PRESENTED BY GEOEC

GEOEC and HPEC Present
Spring Equinox
Outdoor Play: Nature’s Vaccine

SPRING EQUINOX
Outdoor Play: Nature’s Vaccine
April 30 & May 1, 2021
Keynote: Dr. Sean Lessard
#OutdoorPlay2021
If you are a member of both GEOEC and HPEC, this event is free!

WINTER GATHERING
December 9, 2021 - 4pm PT / 7pm ET
Join us in fostering and building a community for educators committed to year-round outdoor learning

A VIRTUAL NATURE WALK WITH GEOEC
THURSDAY NOVEMBER 30
7:30 PM

GET OUTSIDE AND LEARN
WWW.EVERACTIVE.ORG/ITR
Macabee–Forked Ridge Loop

Don McLaughlin

Access: Highway 546 west of Turner Valley, Alberta
Season: Year-round (small creek crossing required)
Round-trip distance: About 10 kilometres with 400 metres of elevation
West parking trailhead: N 50 38.513 W 114 29.550
East parking trailhead: N 50 38.657 W 114 28.648

The Hike
The Macabee–Forked Ridge hike is largely an off-trail hike where good route finding skills and familiarity with the use of a GPS or topographic maps are highly recommended.

The west parking coordinates are the ideal spot to start this scenic hike. From this parking location, pick up the trail immediately to the north and down the hill, where you will find a small creek crossing and an easy spot to hop across the creek. From the creek crossing, head northwest along the trail, where you will spot the lower slopes of Macabee ridge. Find your way to the spine of the ridge and follow the distinct trail to the top. Once on top, enjoy pleasant views to the west and a relatively level ridge walk to the north end of the ridge.

From the north end of the ridge, stay as high on the ridge as possible as you contour to the col between the ridges. Once at the col, gain the ridge top as soon as possible, and again follow the ridge spine to the top. On your way between ridges, you will run into a little blowdown that can easily be avoided with short detours. Please refer to the track on the map on page 8 to find the path of least resistance to the top. From the summit, enjoy the views just to the south and east of the high point.

From the summit, stay high on the ridge as you follow the trail to the south-southwest along the ridge to the east parking area. You will find one small reversal on the way back and a pleasant walk through a surprisingly naturally thinned forest.

Once back at Highway 546, you may enjoy a shuttle back to your vehicle parked at the west trailhead or perhaps a short 1–2 kilometre hike back to your vehicle along the highway. Regardless of your situation, the highway has light traffic year-round. Enjoy!
Track Log of the Trip

Hike Elevation Profile

Pictures Along the Ridge
Great Divide Trail

Association

Great Divide Trail Facts
Length: 1,123 kilometres
Highest point: 2,590 metres (8,497 feet)
Lowest point: 1,055 metres (3,461 feet)

It will kick your butt! These words are commonly used to describe the Great Divide Trail experience. Mosquitoes, floods, treacherous fords, blinding blizzards and alder thickets are to be expected as one traverses over 1,100 kilometres from the US-Canada border in Waterton National Park to Kakwa Lake, southwest of Grande Prairie, Alberta.

Beautiful, incredible, unbelievable, peaceful, wild and sacred are also words used to describe this unique Canadian wilderness route that follows the spine of the Rocky Mountains, known as the Great Divide, where waters on the east side of the divide flow to the Hudson Bay, and waters on the west flow to the Pacific Ocean. Each year a few people walk the entire distance, carrying all the necessities of trail life on their back. Still more choose to hike one, two or three sections with the intent of completing the trail over a few years. Thousands of others walk a portion of the Great Divide Trail without even realizing it.

The first record of the Great Divide Trail (GDT) appeared in 1966 when the Girl Guides of Canada proposed the idea of a trail running the length of the BC-Alberta border through the Rocky Mountains. In 1970, Jim Thorsell developed the first ever GDT guide: the Provisional Trail Guide and Map for the Proposed Great Divide Trail. The national park service approved the project to complete the GDT by 1975. However, Parks Canada stalled its planning process five years later, citing inadequate trail planning methodology and unresolved overuse issues.

Outside of the national parks system, the GDT finally sprang into being due to the federally funded Opportunities for Youth program.
in 1974, under which six students from across Canada joined forces to do the first formal survey of the GDT route.

After a few starts and stops, the Great Divide Trail Association (GDTA) was formally revived in April 2013, and it is fully active again! The GDTA continues to organize trail building and maintenance trips every year. This past year, 100 volunteers donated over 5,600 hours of their time, completing 15 trips performing maintenance and trail enhancements on more than 150 kilometres of trail. In addition, the association actively supports hikers and promotes responsible trail use, and is actively pursuing recognition and protection of the GTA.

Backpacking the GTA is challenging, as it tests one’s bodily abilities and emotional strength. It is also a spiritual journey. It doesn’t always start that way, but as the days progress, one moves from the physical and mental challenges to a simple life, living out of one’s backpack, moving forward one step at a time. It is a life unencumbered by the business and complexities of home. It is an opportunity to marvel at spectacular mountain peaks and peaceful lakes, a chance to witness the intricate beauty of a single alpine flower, or to sit and relax in colourful, wildflower-filled meadows.

After rising with the sun all refreshed, a day of backpacking on the GDT starts with a quick breakfast and coffee, and a quick map refresher, then breaking camp, packing 10 to 15 kilograms of gear and walking slowly to stretch stiff muscles in the misty mountain air. As the morning progresses, the daily conversation with your partner diminishes and your pace increases. Lunch is a quick affair of high-calorie food and drink, then once refreshed, we continue walking. The secret to walking long distances is keeping stops to a minimum and maintaining a steady pace. As the afternoon progresses and the kilometres disappear, the walking pace diminishes. Frequent checks of a GPS map phone app, trail blazes and when they are available ensure that we are on the right track. Occasionally, we stop to discuss the route with our partner when the
path is faint or nonexistent. In the evening, we set up camp in a small meadow beside a mountain stream, nurse a sore body, enjoy a leisurely meal together and look at the next day’s challenges. After safely caching food and toiletries, we contently climb into our sleeping bags to reflect on the day. Later, after reading a few pages of our books, physically and mentally satiated, we fall soundly asleep.

Trail building and maintenance is a different experience, but no less enjoyable. Like backpacking, it is an opportunity to experience the Great Divide Trail’s remoteness and challenging terrain, as well as the weather and scenery unlike anywhere else in the world. Unlike backpacking, it is an opportunity to share the physical challenges of trail building with likeminded people. It is an opportunity to relish seeing and knowing that a job well done will aid backpackers in their quest in an environmentally responsible manner. New and lasting friendships are often formed while trail building, friendships based on a love of the outdoors while living in a quiet location, cooperatively experiencing the simplicities of physical labour. It is also an opportunity to sit around in the evening sharing stories, experiences and a few good laughs before, like the backpackers, crawling contently into a sleeping bag.

The Great Divide Trail Association organizes 12 to 15 trail work trips for groups of 5 to 20 people each year. These trips are attended by people of all backgrounds with limited or extensive hiking expertise to build trails, fabricate bridges and cut brush. Several youth groups energetically participate in a few of the trips. Experienced hikers and trail builders guide the trips, and after training, each camper participates in all activities associated with living in a remote camp and trail building. Each person is encouraged to safely work at their own pace. The GDTA is proud of its safety record.

Great Divide Trail Facts
The trail passes through
- five national parks,
- eight provincial parks,
- three wildland provincial parks,
- two wilderness areas,
- two special management areas and
- five forest districts.

The Great Divide Trail Association (GDTA) is a nonprofit, charitable organization dedicated to preserving and protecting the Great Divide Trail. In addition, we actively promote cultural and environmentally responsible trail use. More information about hiking the Great Divide Trail or participating in trail building and maintenance trips, or being a part of the Great Divide Trail Association, can be found on the GDTA website at https://greatdividetrail.com/.
Great Divide Trail Maintenance Trips

Great Divide Trail Association

The following excerpts are taken from an article entitled “2021 Trail Building and Maintenance Trips,” on the Great Divide Trail Association’s website. Trail building and maintenance are done annually along the Great Divide Trail (GDT). Below is a small collection of reflections from volunteers who participated in one major scouting trip in early spring 2021, which sets the stage for all of the High Rock Trail trips. We hope you enjoy these volunteer trip reports and stories. Read about more amazing adventures here: https://greatdividetrail.com/2021-trail-building-maintenance-trips/.

Trip 2
by Melanie Sampson

The cool mountain air is crisp, and the larch trees have turned, adding a splash of vibrant gold across the landscape along the Great Divide Trail. After an unusually hot and dry summer, the change in temperature is welcomed. During this transition of the seasons, I find myself reflecting on some of those long summer days. This year, I look back on my incredible volunteer trail building and maintenance trip with the Great Divide Trail Association (GDTA), and do so with much gratitude.

My name is Melanie, and I have lived in the Calgary area for over a decade. I have made the nearby Rocky Mountains a huge part of my life. I love to hike, trail run, cross-country ski and bike, and I am usually even keen for a swim in the frigid glacier waters. I have built a career in aviation that allows me to travel all over the world, but when my feet are back on Canadian soil, I am typically mountain bound. With the slowdown of travel throughout the COVID-19 pandemic, I have spent more time exploring nearby trails and found myself gravitating toward taking part in one of the GDTA’s trail building and maintenance trips. I was fortunate enough to sign up for Trip 2 along the High Rock Trail in the Crowsnest area. I had no prior experience with trail maintenance and was relying on the instruction and guidance of Trip 2’s crew leads, the positivity and encouragement of my crew mates, and my own eagerness to contribute to this ongoing project that is, quite frankly, remarkable.

Upon our crew coming together and meeting each other for the first time, we quickly bonded over our shared love of the trail, exploring wild places and this magnificent thing called the Great Divide Trail. Together we shared stories from the trail: our favourite backcountry snacks and meals, how to make said meals from scratch and as close to gourmet as possible, swapped gear recommendations, and, of course, shared tales of everyone’s previous wildlife encounters. While we all came from different walks of life, with varying degrees of experience building and maintaining trails, we came together naturally to dedicate a week of our time for the betterment of the trail so that others, like ourselves, could enjoy the beauty that lies within the Crowsnest area.

The days were extremely hot—topping out at 37°C—but our team worked tirelessly as we were all keen to make our trip leaders (Dave Hockey, Doug Borthwick and Peter LaBastide) proud. What our group accomplished was incredible; the Scout clearing team flagged and chainsawed nearly 2 kilometres of new corridor south of camp, while the tread team cleared blowdown and improved 3 kilometres of trail north of camp, built new tread for 200 metres in the First Creek Valley, and 160 metres of new trail toward Racehorse Shoulder. Trip 2’s crew led the way and set the standard for the next six trail crews to follow, and the first 160 metres of trail built was used as an example for the next 5 kilometres of trail up and over
Racehorse Shoulder that saw more than 200 grateful hikers this summer. What an accomplishment!

I feel very honoured and grateful to have spent a week with such fine people, who were all so inspiring and dedicated to maintaining, protecting and promoting the Great Divide Trail. I’d recommend taking part in a trail building trip to anyone, especially if the Rocky Mountains hold a special place in their hearts; it’s such a fulfilling experience! Thank you, Great Divide Trail Association, for your incredible work; I’m already looking forward to next year!

Trip 3

by Emily Mayes

My name is Emily, and I am an undergraduate student at McGill University. I stumbled on the GDTA website and signed up for this trail maintenance trip without knowing much about the Great Divide Trail or having any idea of what to expect. I am so glad I did! I could not have asked for a better opportunity to learn about the trail building process and to spend some time in the mountains.

The trip was a resounding success. Most of us were first-time volunteers with the Great Divide Trail and had little previous trail maintenance experience. We learned a lot from Doug, Dave, Peter and the returning volunteers. I really can’t thank the trip leaders enough for sharing their knowledge, and for their constant support and kindness. What our team might’ve lacked in trail building experience, we made up for with enthusiasm. It was energizing and motivating to work alongside people with such passion for the mountains and the Great Divide Trail.

Trip 3 was a hot one. It had been +35°C for a week across most of Alberta and BC when we arrived at camp. It was slightly cooler in the mountains, but we were very much still in the midst of a heat wave every day of trail building. It didn’t slow us down too much though! Every day we’d hike a very convenient five minutes from base camp to the start of our trail. From there we’d split into a few groups: scouts and chainsawers, trimmers, pulaskiers and a finishing crew. Doug was great at noticing people’s predispositions for specific jobs, and the work went very smoothly. We plugged along, breezing through sections of nice soft earth and taking our time on various other terrains permeated by stumps, roots and rocks, and on intense side slopes. All said and done, we managed to complete about 1.3 kilometres of beautiful 15° grade trail, nearly completely free of tripping hazards. (I will never be able to walk a trail and take it for granted again.) After four days of intense sunshine, the weather cooled down, and we woke up to foggy skies instead of mountains on the final day. It rained on our way back down to the Atlas Staging Area, and the rain was a wonderful (and refreshing) conclusion to an incredible week.

Trip 4

by Doug Borthwick

This trip saw the second of three youth groups help with building new trail sections. The Outdoor Council of Canada (OCC) on this outing, Crowsnest Bible Camp on the previous, and the Junior Forest Rangers on Trip 7, were major drivers to get this year’s work done up and over Racehorse Shoulder. Their youthful vigour and enthusiasm inspired other veteran trail builders immensely.

Trip 4 was the only one other than the Jackpine (Trip 10), which saw any significant rainfall during a very dry and hot summer. There were two nights of heavy rain and hail, and the new tents and wood stove were very much appreciated. This trip was the final one for the forward crew of trail blazers and chainsawers to finish their work, and at the end we said goodbye to
Dave, Peter, Julien and Jim. The tread crew built another hard-earned 1.2 kilometres of new trail.

The OCC having now become veterans, recruited an amazing cook to add to their camp. There were usually lots of leftovers, and Alistair was front and centre showing the rest of the camp how to properly yogi an extra meal. I really don’t think we worked this crew hard enough as every morning at 5 AM we had one ambitious volunteer who had to complete a 5-kilometre trail run before breakfast. The last day the heat and dry weather returned, and this crew was glad to dry out before heading home.

**Trip 7**

*by Kathleen Gallagher*

Trip 7 began at a very civilized 11:30 AM at the Atlas Staging Area near Coleman in Crowsnest Pass. There I met my friends for the week: Jud, Christine and Tom, a small but mighty crew. After a quick backtrack into town to pick up some washers to repair the hose, we were ready to drive up the gravel road to the snowmobile staging area where we would hit the trail. As we neared the parking area, out popped Doug on an ATV from the trees, smiling, waving and ready to embark on another successful week of trail building.

Unbeknown to me, Doug would be packing our gear on the ATV to the base camp for the week—truly a missed opportunity since I had packed backpacking style. Next time I’m bringing a cot! A quick jaunt up the road and we arrived at our luxurious accommodations: two large common area tents, one for the food preparation and cooking, and the other for lounging, complete with a library of Great Divide books and a wood stove! We set up our individual tents, and Doug gave us a tour of the camp, instructing each of us on our duties. The brave campers touched the live wire for the bear fence to ensure it was working, though Christine and I did not. The bugs were crazy bad that first day but got better as the week went on (not sure if that is related to my tolerance or actual conditions)!

As we walked to our worksite on the first day, Doug gave us tips and tricks, pointing out challenges and opportunities experienced by the previous groups. His teaching speaks for itself as we were spoiled by the beautiful trail that had been created by the volunteers before us, providing us with smooth sailing and a seamless hike to our starting point. On our commute to work, we were fortunate enough to travel over a beautiful ridge, treated to magnificent views of Crowsnest Mountain, Seven Sisters Peaks, Mount Ward and the valley below. I had been a bit nervous about using the heavy and sharp tools required for trail building in the wild, but after a few minutes watching my skilled colleagues, Jud and Tom, I felt up to the challenge! I’m glad I tried it out since trail creation is so rewarding! It felt awesome to demolish giant roots and also to look back at what we had achieved each day and think about how we were contributing to a little piece of history.

Day two and three were our main working days and our supervisor Doug was not too tyrannical. Some breaks were allowed, and we even had lunch off! I would escape to the beautiful ridge at lunch to catch some wind and cool off in the heat. An added bonus would be if the gusts blew the bugs away. All in all, we had spectacular weather—not a drop of rain—and I couldn’t have asked for anything better. Day four was a more lenient day, as it was the last one and everyone was rather tired. Still, we built about 330 metres of trail through varied terrain, which we were happy to tackle as only a four-person group. Three hundred and thirty metres doesn’t sound like much on a 12,000-metre trail, but a journey of a thousand miles starts with a single step and that is 330 metres that wasn’t there before! I know that the folks who were going in straight lines up and down ridges with no gentle switchbacks to smooth the elevation appreciated it—they even brought us beer!
On our last night to close out the trip, bartender Jud was generous with his supplies, and Tom and Doug shared countless stories from their past years of trail activities. Christine finally revealed her age to us and went from very impressive to legendary. Thank you to my wonderful companions of various backgrounds for coming together and sharing such a great week with me. I still smile every time I remember the sense of accomplishment I felt, and I can’t wait to get back out there next summer!

Trip 8

by Sebastian Kanally

The backcountry is an important refuge. The pristine mountain air fills you with life, the human noise gets left behind, becoming hours and days ago. The backcountry is a palate cleanser, always there to remind us who we really are.

I am Sebastian Kanally. I live in Amherstburg, Ontario, and the mountains have called my name ever since I first laid eyes on them in 2018. I flew out to hike in the mountains this year (2021), saw the GDTA e-mail requesting volunteers to help build sections of the Great Divide Trail, and I could not pass up the chance. I am a philosopher who is humbled by our natural world. This was an awesome opportunity for me to give some of my labour to the GDTA and meet a diverse group of people interested in both volunteering and the backcountry.

Volunteering with the Great Divide Trail Association is a truly enriching experience. I had never done it before, and the experience exceeded my expectations as it was lots of fun. I enjoyed learning how and why trails are built the way they are. It is a great experience to look back at a day’s work, to see a trail there that was not there the day before. The hard work you put in that day helps build a trail so that others can see these beautiful places. My small amount of work comes together with hundreds of other volunteers to help hikers and equestrians of all abilities to experience the sublime nature of this landscape, in this small corner of the largest intact land biome left on earth.

To volunteer one’s time to go live in the backcountry, no cell service, just living a truly minimalist and essential life, limiting one’s footprint and working collectively to achieve a goal, is brilliant. The walk to work is stunning. The greatest part of the trail-building experience for me was learning and developing more intimate knowledge about this beautiful landscape: the intricate and symbiotic relationships between all the plants and animals, such as the white bark pine, the larch and spruce trees, the Clark’s nutcracker, the grizzlies, and how this is all being impacted by climate change and human activity. The ecological wholeness of this pristine environment demands our respect and work to protect. You can learn about it, but until you spend time and actually experience the landscape, it is hard to appreciate the complexity of this ecosystem.

If you are looking for a fun way to get into the backcountry with a group of people, I would highly recommend trail building with the GDTA. During an era of climate changing our ecosystems, to meaningfully contribute and do so with an organization that values keeping the ecosystem intact, is priceless. Different people bound by their passion and appreciation of the Rocky Mountains made this a very fun and enjoyable experience. These are amazing people and friends I never would have met without volunteering. All these different demographics coming together truly speaks to the value of building trails and volunteering with the GDTA.

Thank You to All

Many thanks to all of this year’s volunteers! Thanks also go out to our supporters whose generosity has greatly enhanced our trail building and maintenance capabilities, including Alberta Equestrian Federation, Alberta Environment and Parks, Alberta Culture and Status of Women, Alberta Forest and Garden, Stihl, and Columbia Basin Trust.
Every year, November catches me off guard. The days get shorter and colder, and everything seems to transition from the vibrant colours of summer to greyish-brown hues. In Alberta, the nights and mornings become starkly frigid, while the days offer some reprieve. With this temperature differential comes a change in barometric pressure systems, which also trigger headaches and frequent layering and delayering of clothing (Maini and Schuster 2019). All of these changes can add burdens to our lives and amid this, we continue to face the challenges of a global pandemic. During the winter months, it seems to become extra difficult to maintain a personal sense of holistic well-being practices and routines. We can reflect on the four domains of self as explored by many people as physical, emotional, spiritual and mental. Physically, our bodies are craving sleep and rest with limited natural vitamin D available to us (Dumville et al 2006). Emotionally, our mood might feel lower due to a result of the changing season and lack of sunlight (Melrose 2015). Spiritually, many people begin to spend more time indoors, and as a result of pandemic restrictions are spending less time with friends and loved ones. In our surrounding world, plants begin to die off and animals prepare for the hardships of winter, leaving us with fewer daily reminders of the vibrancy of surrounding life. Mentally, we might experience added pressures with the end of a semester nearing: exams, report cards and other deadlines looming around every corner.

Now, more than ever, it is important to look toward being proactive and intentional to care for ourselves and those around us. Rationally, I can acknowledge and remember these aspects of winter change for myself, but somehow, every year, I feel unprepared to prevent the effects of the changing season altogether. In saying this, I have reflected over the years on the things that made a difference in allowing me to shift my own narrative of what winter means. Below, I explore a few tips and tricks to support holistic well-being for myself and those around me in the cold, dark, wintery months.
Tip 1: Dress for Success

There’s no such thing as bad weather, only bad clothing. I’m sure most outdoor educators have heard this saying. Although I know this to be true and practise this to some extent every year, I still have moments of being absolutely miserable in the outdoors because I can’t feel my feet or hands. When we are cold, our body attempts to regulate our internal temperature. This requires energy and glucose. As this is a primary survival function, our brain’s working memory and executive functioning are temporarily limited to support our body’s ability to stay alive (Wlassoff 2018). This is why it is so hard to focus on anything other than being cold when you are cold. And guess what? Young people will have a hard time learning about any lesson, in the moment, if they are painstakingly cold. I say in the moment because I know that all outdoor educators everywhere are crossing their fingers and hoping that students will learn their lesson about being prepared and dressing for the weather after some much-needed reflection. This leads me to my first suggestion: invest in some warm clothes.

In the classroom, teaching students to be comfortable and prepared for the outdoors is essential. A few simple items can make a huge difference. We won’t always be able to provide proper boots, jackets, mitts, toques and base layers for all students, but a class set of a few different items can change the situation remarkably.

1. Foam pads: Investing in some cheap foam sleeping pads and cutting them into smaller squares can give students something to stand on or sit on that will keep their body more insulated. Sometimes, dollar stores sell kneeling pads for gardening that have a thick layer of foam in them. Having these available adds that little bit of comfort that can make all the difference.

2. Fleece blankets can be incredible for sit spots and lunch activities to give students an added layer when their bodies aren’t producing as much heat. If you have run trips or spent time outside where you have felt cold, be certain that your students will have felt it as well.

3. Tarps: Setting up a wind or sleet shelter can vastly improve temperature for a group. There are many great lessons that can support students in learning how to construct a well-functioning tarp shelter.

Try to think about the times you felt the coldest and work backward. How can that be prevented with extra layers, movement, hydration, fuel or washroom use?

Tip 2: Routines

I will vouch for routines for the rest of my life if I have to, but establishing routines for yourself and your students is essential during this time of year. We are cyclical and rhythmic creatures, and we crave predictability to some extent. From a trauma-informed lens, structure helps to strengthen the pathways in our brains that allow us to trust and build attachments in life that are essential for overall well-being. Young people who have experienced trauma view the world as a scary place, and predictable relationships can support their recovery (Walkley and Cox 2013).
Personally, the winter is when I start to plan out my weeks. I plan my pre and post work activities to ensure that I am getting enough exercise and rest, and am able to take care of my weekly life tasks. Without this, I feel my weeks slip away from me.

For students, having weekly and daily routines can simplify classroom management and allow for students to regulate their emotions as they become aware of the expectations (Norris 2003). There are times and places to ditch the plan and be flexible, but I would argue that the beginning of the winter months brings all kinds of hardship of their own. Let’s support each other’s mental health by establishing some routines and following them. For those who have access to outdoor spaces, building some outdoor time into your schedule is ideal to allow students to interact with nature. Numerous studies show that forest-bathing and spending time in green spaces (even when they are snow covered) can greatly support mental health and recovery (Hidalgo 2021). Additionally, think about how long we have daylight before and after school. I don’t know about you, but arriving at work in the dark and leaving in the dark is an obstacle for my own mental health. Chances are that young people feel the effects of this as well. Let’s build some time into our schedules for young people to be outside in the daylight during the winter months (and all months for that matter). This could look like an observational activity, noticing the changes in the season and in the weather. It could be a walk to identify math-related problems outdoors. Have students assess greenery and city planning. Maybe have students brainstorm an idea for a debate; for example, should the city pay for snow removal or should citizens take this on themselves? Whatever the discipline or age group, having students spend even 5 or 10 minutes outside can help them regulate their bodies (Sibthorp et al 2015).

**Tip 3: Embrace Darkness**

Let’s face it, once November rolls around, many of us spend much of our time indoors or in darkness. While a part of us may be mourning the loss of the long sunny days of summer when it felt like you had endless amounts of time for activities, there is something awe-inspiring about the profundness of the night. We must foster wonder and appreciate the breathtaking moments that come with looking at the stars, the moon and, when we’re lucky, the aurora borealis. Think about those times when you step outside, the temperature is well below zero, and little ice crystals or soft, large snowflakes are floating all around you when there is no wind. Remember to practise mindfulness in these moments. Look up, take a breath and allow yourself to be in awe of the world around you.

Additionally, this is a great time of year to embrace activities in the dark. Many cities are embracing the night by developing nighttime outdoor recreational spaces. In Calgary, we have numerous parks that have cross-country ski tracks or skating pathways through forests that are lit with regular lighting, decorations and firepits. Even with the smallest sliver of a moon, light is reflected off of the snow. Night hikes and snowshoeing become all that more exciting as you can often turn off your headlamp and sink into your eyes’ incredible ability to adjust to the limited light reflecting off of the snow all around you. You might also be lucky enough to see some of the nocturnal wildlife scampering or flying around the forest!
When I worked with one high school outdoor education class, we would go on multiday cross-country ski trips. At least once every trip we would take students into a big open field at night. In a large circle, we would all lie down in the snow, look up at the sky and be absolutely silent for some time. You might think that this would be a recipe for the one student to speak out or make noises to seek attention, but in my time with these classes, all of them respected the process—every single one of them. Every year, this was one of the most memorable moments young people mentioned during the debriefing of our trip. How often do we embrace silence and darkness and allow ourselves to be impressed by the sheer power of its effect on us?

**Tip 4: Community and Connection**

It is no secret that human connection supports well-being. Even for introverted folks like me, community is essential to maintain balance in life. Relationships, however, do not happen automatically; they require time and energy. In the winter months, time and energy are the two things that I constantly feel like I am lacking. If anyone else can relate to feeling this way, it might seem daunting to try and uphold friendships and community in the shortened days of winter. This is where we can refer, again, to the importance of routine. It can feel overwhelming to plan get-togethers and events for friends and family, but when it is built into a routine, it becomes more effortless. Additionally, this can be combined with hobbies or outdoor activities to benefit overall well-being. Joining a sports team or club can even take the organizational work out of it. Sometimes it can be as simple as arranging a drop-in ski or skate night with friends to stay connected and active.

With the COVID-19 restrictions and advisories, we must remember that many people have lost their community or feel as though they aren’t as connected to those around them. In our classrooms and schools, it is even more evident as some young people have stopped participating in clubs or teams altogether. Creating community in your classroom is one way to support young people’s well-being by providing a source for connection. Celebrating collaboration and community is one thing, but facilitating and guiding opportunities for connection is so important, regardless of what you teach. Creating open dialogue and safe spaces can foster a sense of belonging, which directly affects one’s mental health.

**Tip 5: Talk About Mental Health**

Instinctually, some people overcompensate when they sense others’ declining moods around them. Although optimism has been a trait often sought after by our society over the past few decades, we can at times venture into the territory of toxic positivity (Quintero and Long 2019). Sometimes, the glass half-full mentality and over-the-top focus on gratitude can dismiss and devalue what someone truly feels. Winter is not everyone’s favourite season, so it can be physically, mentally, emotionally and spiritually draining...
for many people. Our bodies want to hibernate, to seek comfort and store calories to stay warm. Being empathetic and nonjudgmental when people talk about these needs and desires can support agency and well-being. Barcaccia et al (2019) explore this connection further by noting that when people maintain a nonjudgmental approach to thoughts and feelings, they can experience lower levels of depression and anxiety. There are a few things to be conscious of when talking about feelings from a nonjudgmental framework. Try to let each person experience their own feelings.

Although you may want to connect by comparing their experience to one you have had, this can risk minimizing theirs and making them feel misunderstood. Let them feel what they are feeling and let them know that it is OK to feel this way. Many people find comfort in the phrase, it’s OK to not be OK. This leads me to my next point: avoid saying things like, “At least you have a job,” or “At least you have friends who can help.” These phrases are often made in attempts to support someone to be grateful and move forward, but telling someone to move forward is not always appropriate when they are experiencing strong emotions. Remember that regulation comes first and foremost, and mindfulness activities and tools can be the quickest way to regulate (Hill and Updegraff 2012).

For years, evidence has been evolving about the positive impacts of nature on holistic well-being (Harun and Salamuddin 2014). Connecting to nature’s seasons and cycles is part of what connects us to the world. In the winter, there are added challenges and difficulties that can prevent us from connecting in this way. This time of year is often when we need the most support from others. Normalizing the changes in season and our holistic response to these changes in these shortened cold days allow us to embrace the wonders and excitement of winter and support our overall well-being.
References


As teachers, students and educational institutions move forward with the Truth and Reconciliation Commission’s Calls to Action, land acknowledgements have become a common practice in schools. Land acknowledgements are exceptionally important not only to further truth and reconciliation but also for students to learn about a sense of place as well as connect with their own spirit and location in the natural world. For these reasons, land acknowledgements must not become simply rote nor a prewritten script performed before assemblies. Simply using the land acknowledgements provided by school boards is a first step in a never-ending journey of self-discovery, reconciliation and wonderment of the world. Moving beyond prescribed land acknowledgements not only benefits student understanding of the Calls to Action but also deepens learners’ understanding and appreciation of themselves, the natural world and the interconnectedness of it all.

Land acknowledgements can be organic or highly planned. Depending on the students’ understanding of place and their exposure and comfort level with Indigenous ways of learning, knowing, being and doing, prior understanding will affect the level of background knowledge and preparation needed for a land acknowledgement creation. The important aspects of creating a land acknowledgement with students are to be authentic, creative, personal and reflective. Personal land acknowledgements must be unique to your own specific context and utilize the skills, strategies and understandings of your own students in their creation. Following are details involved in the creation of a land acknowledgement in a Grade 6 class in northeast Calgary during the 2020/21 school year.

An important part of our school community and culture involves Nose Hill Park. In Calgary, Nose Hill Park is one of the largest natural areas inside city limits and is accessible from multiple entry points on the northern side of the city. Students and teachers often walk to Nose Hill Park and explore the area. Grade 6 students have been coming to Nose Hill Park for their entire elementary school years, so it is a familiar and safe space for them. Due to its close proximity to school and their neighbourhood, many students explore the park with their friends and family on weekends and after school. One of the students’ favourite spaces at Nose Hill is a large group of boulders, which are set at the very top of the hill. From one side, students can see the downtown skyline, our school, their homes and the airport. When they rotate 180 degrees, students can see the snow-capped Rocky Mountains, the flat plains of Nose Hill, and various deciduous and coniferous forests.

Prior to this specific occasion at Nose Hill, teachers and students discussed what land acknowledgements are, the key aspects of them, their uniqueness based on specific places and their importance. Students discussed their thoughts and
feelings about the land acknowledgement that the school board provided. Students also discussed how land acknowledgements can be organic, fluid and special to each person, as opposed to prescriptive. Once at Nose Hill, students explored and engaged in physical activity around the boulders. As students began to settle, they were called into a large group. The teacher reminded them of the land acknowledgement discussion they had in class earlier. Next, students connected with the land through the use of sit spots. Students found their own area within Nose Hill in sight of their teacher for safety. Students needed to sit and settle in an area away from their peers and other distractions. Then they were left to think, meditate, breathe deeply and imagine. This class had already been exposed to various mindfulness and meditation techniques and practices. Then, one by one, the teacher asked them to contemplate “Land is...” as she filmed them in their sit spot. Students filled in the blank, sometimes with one word or with a phrase; for example, “Land is beautiful,” “Land is kind,” “Land is giving,” “Land really works hard for us” and “Land is amazing.” Students organically created their own interpretations of what Nose Hill Park meant to them, taking as much or as little time as they needed. Once all students had been filmed, they came together as a class and had a sharing circle. Students shared how the land made them feel, as well as any other thoughts they had during their reflective time. Students shared that being at Nose Hill made them “feel calm” and “forget about the bad things happening in the world.” Overall, the lesson at Nose Hill took about an hour to complete, and students were engaged in their sit spots for about 25 minutes.

Upon their return to school, students drummed with our school’s Indigenous learning strategist. The drums used were created by staff, following traditional methods taught by Elders and Knowledge Keepers. The drumming was then recorded and set as the background for the students’ interviews. Pictures taken at Nose Hill by teachers and students were used to connect student interviews. The final product was a two-minute video of a personalized land acknowledgement. This land acknowledgement was used at the school and throughout the district to begin meetings, assemblies and other special events as well as in individual classrooms for personal reflection about “place.” The land acknowledgement also included a physical manifestation of the land in the form of a medicine bundle. A medicine bundle is a wrapped collection of sacred items inside a hide to protect, honour and cherish the medicines, plants, animals or items coming from the land. We decided to create our own class bundle while at Nose Hill by having students find a few items from the land that spoke to them both
individually and collectively. Some students found interesting rocks; others found beautiful berries and grasses. Prior to borrowing items from the land, students offered tobacco through the use of a sun wheel. Students placed the items that represented the land on a large piece of fabric that was then tied up and placed in their classroom. This physical land acknowledgement was used when students could not go outdoors due to weather conditions, and students had constant access to it. They were able to carry it and feel the heavy rocks inside, and smell its unique scent of the wind-tossed outdoors. At the end of the school year, students returned to the sun wheel at Nose Hill and gave the contents of the bundle back to the land with gratitude.

The creation of a personalized class land acknowledgement supported student understanding of place, as well as their role within the natural world. Multiple discussions throughout the year referred to the time spent at Nose Hill. Students moved from appreciation of the land to active stewardship; if the land is giving and beautiful, what actions do we need to take to make sure it continues to be so? Later discussions showed continued growth as students began to connect their present place with previous experiences. Many students born in other countries used the class land acknowledgement as a jumping-off point to reflect on their sense of place in two spaces and their navigation of various cultures.

Personalized land acknowledgements are unique to specific classes and settings. Though the teacher still teaches Grade 6 at the same location, the 2021/22 land acknowledgement is fundamentally different because the students and group dynamics are different. Land acknowledgements are unique to a place and space, and therefore must honour the learning journey of both students and teachers as they are used to deepen not only understandings of the natural world but also the interconnectedness of all peoples.

Jordan Code is a Grade 6 teacher in northeast Calgary. She has worked in Calgary for the past eight years in Divisions 1 and 2. She is currently enrolled in the Masters of Education: Teaching, Learning, and Neuroscience program at the University of Lethbridge. When not teaching, she enjoys spending time with her family, visiting the Rocky Mountains and travelling.
Wild Jobs is a running series that focuses on people in outdoor-related professions. It provides a brief snapshot of their careers and the duties they entail.

The first time I witnessed someone light a fire using only a bow drill and tinder I was amazed. I remember watching in awe as the sheer determination eventually gave way to a single ribbon of smoke. As the flames flickered to life, I was hooked. Since that time, bushcraft has always fascinated me. The ability to go into the wilderness with minimal equipment and thrive on only what surrounds you is more than impressive.

Recently, I hosted a professional development day for outdoor educators. One of the presentations was given by the dynamic husband and wife duo, Dale and Colleen Kiselyk. Colleen has been an educator for almost 30 years, and Dale is a bushcrafter extraordinaire. In an effort to learn more about the art of bushcraft skills, I approached the Kiselyks to see if they’d be interested in an interview for my Wild Jobs series.

Graciously, they agreed and what follows are the highlights from our interview.

Wild Jobs: Bushcraft Instructor with Nature Alive Adventures

Tyler Dixon

The more you know, the less you carry.

—Mors Kochanski

How long have you been teaching bushcraft?

Dale Kiselyk: I started volunteer teaching in 1996, and by 2001 my reputation had grown enough that I was getting hired by youth groups, schools and adult groups to offer sessions. In 2003, I was hired as the full-time program director at a youth/adult camp near Edmonton, and my teaching of outdoor skills began to intensify with the addition of canoe instructor certifications and drum circle facilitator training.

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Colleen Kiselyk: Dale and I got together in 2014. It was then that I was introduced to the bushcraft world. Up to that point, I was an avid outdoor enthusiast, active in running, cycling, hiking, backpacking, camping and anything else that got me outside and interacting with nature. Bushcrafting has been a natural addition to what I already love to do and enjoy.

How did you learn bushcraft yourself? Can you share a little about your background?

Dale: It started with growing up in the small town of Athabasca, Alberta. I lived on the edge of town near a forested area where the Muskeg Creek watershed flowed into the Athabasca River. This was my stomping ground, where I learned to light fires, build shelters, handle tools like axes, saws, and knives, and this is where I formed my dream to meet an elderly Indigenous person who would share how to live off the land. As an adult, I started gathering survival and outdoor books on the subject and began practising bushcraft as a hobby in my free time. I travelled to the US and enrolled in numerous week-long courses at the Tom Brown Survival and Tracking School, and Wilderness Awareness School in various class locations. Another aspect of my training and experience was to immerse myself in Indigenous spirituality through a Sioux Medicine Man and various cultural ceremonies and teaching over a 10-year period. A real turning point in my career was in 2007 when I contacted Mors Kochanski and arranged a mentorship with him by visits to his home and assisting on his courses throughout the province. As Mors slowed his teaching career, he started passing some of his teaching contracts to me and I took them over. Looking back on my career, I would say that the greatest learning boils down to my commitment to getting out and practising the skills on my own time. It’s fairly easy to capture the knowledge from the many books and internet sources out there, but to really become an accomplished instructor, you have to get out there and spend countless hours practising the craft—countless hours indeed.

What types of skills are taught during a bushcraft course?

Dale: The starting place is usually with the following: knife safety and skills, fire lighting methods and ways to...
manage fires for cooking, stoves, tying knots and making rope from natural materials, clothing for the outdoors, plant identification and edible and medicinal plants, and shelter building. Further down the bushcraft trail are interesting subjects like hunting and tracking; trapping; navigation; travel by foot, snowshoe, sled and skis; tools of stone and bone; tanning hides; food preservation; and permanent shelters. The ultimate goal would be learning all the skills to adopt a mixture of a hunter-gatherer lifestyle, mixed with European contributions of metal tools, pots, wool and canvas, and items that they introduced to North America at the time of the fur trade.

What are the tools of the trade?
Dale: A good solid knife that is basically a pry bar that shaves wood well. Adequate clothing for any given weather. Saws and axes. Ropes and lashings. Matches, flint and steel, and modern metal matches. Cookware and campfire cooking knowledge. But most important, the mindset to improvise, locate, gather and build anything you require from the environment around you. For example, if you need a backpack to carry something, then make one. If you need a shelter, build it. If you require good outdoor clothing made from wool, learn to sew. It’s all about adaptation in every moment and reliance on your skills and knowledge.

Is there a difference between traditional bushcraft skills and our more modern approach? If so, what does that difference look like?
Dale: Great question! I like to break it down into three areas of expertise and equipment. First, primitive skills, which is basically primitive bushcraft. This involves living off the land using rocks, wood, hide, bone, plant fibres, birchbark canoes, and natural shelters, and hunting and gathering animals, and processing the animals for food, tools, clothing and shelters. Second, traditional bushcraft, which is from the pioneering and fur trade era. It’s living off the land using forged tools, such as knives, axes and saws, and natural clothing made from wool, silk and cotton, and using materials like iron for fire lighting, matches, canvas tarps and other manufactured materials. Third, modern bushcraft, which is a mix of primitive skills, traditional skills and modern materials that are often used in the modern no-trace camping movement. The modern bushcrafters use nylon tarps, synthetic clothing, plastic items, gas stoves, water filters, composite canoes, GPS and cellphones. Pretty much anything goes regarding outdoor skills, knowledge and materials.

Personally, I feel that the terms bushcraft skills and survival skills are used interchangeably. What’s the difference between the two?
Dale: I define it on my website as follows: Bushcraft skills are about surviving and thriving in the natural environment, and acquiring the skills and knowledge to do so. Professional bushcraft instructors are sensitive to the environment and practise low impact activities. Survival skills teach the skills required to deal with sudden, short-term and life-threatening situations when participating in such outdoor pursuits as canoeing, hiking, climbing, backcountry camping, wilderness travel and working in remote areas. It can also be applied to sudden,
life-threatening situations such as plane crashes, battlefields, disasters, famine and other traumatic situations. Survival instructors ultimately teach that preservation of human life will trump protection of the environment. Basically, you do whatever you need to do to survive the ordeal.

What’s the best thing about teaching bushcraft?
Dale: Seeing kids and adults succeed at a new skill is the best. Also, hearing from people who work on their skills on their own, then letting me know what they’ve accomplished.

Colleen: For me, I always enjoy the challenge of solving problems with what is at hand. It is neat for me to see others realize that the outside world provides so much of what we need, like food, shelter, clothing and recreation, if we are willing to learn and put the work into harvesting and preparing what is there. It is a rediscovery of the latent gifts of nature.

How do you see bushcraft fitting into today’s approach to outdoor education with increased emphasis put on Leave No Trace and ethical/responsible outdoor travel?
Dale: This can be a hot topic for some people. In the early ’90s, I spent a few years mountaineering and backcountry camping in our national and provincial parks. During these years, I fully immersed myself into No Trace Camping, and I feel that adopting No Trace Camping was a crucial addition to my career path. Practising a no trace philosophy is absolutely

What’s one of the most challenging aspects of teaching these skills?
Dale: Teaching the skills comes easy. Filling courses and making a living is the challenge. We have tried for years to turn it into a full-time business without success. It is super challenging to balance full-time jobs (a plumber and a teacher), full-time family and our growing, almost full-time adventure business. Logistically and mathematically it is tough to make a living teaching bushcraft. Alberta is relatively sparsely populated, and its people are really spread over a large area. Plus, bushcraft enthusiasts are really only a small per cent of all the outdoor enthusiasts in the province. To make a living with Nature Alive, we would have to run courses and trips every week throughout the year, and it’s just not possible in Alberta. There are similar bushcraft schools that run programs all year and many have numerous staff members, but they are usually located in the US or Europe where there are millions of people who live much closer together.

There are so many skills that I want to know and be proficient at all of them. As a relative newcomer to the practice, I feel the pressure of “so many skills, so little time.”
necessary in many parts of the world, and here in Canada it is necessary when our outdoor activities are in or near any park, ecological reserve or well-travelled public lands where conservation and preservation of nature is paramount. This philosophy is then easily transferred to all our outdoor activities including bushcraft, survival, gathering plants and building shelters in areas of the province where these types of activities are appropriate. Teaching people to be stewards of the land and to be acutely aware of the impact of all outdoor activities is always a significant part of all our courses and trips. It just makes sense.

How long has Nature Alive been around? What prompted you to start the company?
Dale: The fulfillment of a lifelong dream to have some sort of outdoor education school or company that I could call my own prompted me to start the company. Also, in 2007, the youth camp that I was working at went through some drastic changes. The opportunity came up for me to launch into a new career path, so I enrolled in a self-employment program and spent six months writing a business plan and learning how to manage all the aspects of running a business. The self-employment program helped me to learn the business side of Nature Alive Adventures.

Other than bushcraft courses, what other types of programs do you offer?
Dale: A large part of our programming centres on canoeing. Colleen and I are nationally certified instructors with Paddle Canada, so each year we offer canoe courses under the Paddle Canada curriculum. We also offer single-day and multiday canoe trips for groups throughout the season. Another aspect of our company is Drum Circle Facilitation. We own roughly 100 drums and hand percussion instruments, so we are able to accommodate a fairly large group. Our drum circles are really user friendly and fun, and it is very easy to supplement any event with one to two hours of in-the-moment music making. We often combine programs; for example, a day of bushcraft or
outdoor education may conclude with a drum circle for the group.

Winter camping and snowshoe/toboggan trekking is another aspect of our company. We have enough equipment to take eight to ten people snowshoe trekking with all the camping gear hauled into camp on our own handmade freight toboggans. We camp in canvas tents with wood stoves, and we travel and explore the frozen rivers of the Boreal Forest. It is a wonderful way to experience the outdoors and gain experience with cold weather clothing and footwear, camp stoves, reading ice and travelling in deep snow. We are also fortunate to be in partnership with a community of professional outdoor educators in Alberta, so we are able to build programs that utilize the knowledge and experience of educators who offer programs outside of our toolbox. For example, we can bring in instructors who are skilled in edible and medicinal plants, ethical trapping and snaring of animals, hunter training programs, kayaking and wilderness first aid.

I would like to take this opportunity to thank both Dale and Colleen for taking the time to answer all of my questions. The dedication you display to your craft is really inspirational.

To connect with Nature Alive Adventures, please visit their website, or you can find them on Facebook, Instagram and YouTube.

Tyler Dixon is originally from Saskatchewan, and, yes, he cheers for the Roughriders, but don’t hold that against him, as Calgary has been his home for the past eight years. He is a teacher working at a wilderness-based treatment program for youth working to overcome addiction and is GEOEC’s social media director. He is also a volunteer with the GOT Parks initiative, which aims at reconnecting Canada’s youth with our national, provincial and territorial parks. During his time away from work, Tyler enjoys such outdoor activities as hiking, biking and snowboarding; team sports; travelling; photography; spending time with good friends; and being at home with his wife, children and German shepherd (Rome). Reprinted with the author’s permission from the Calgary Guardian, https://calgaryguardian.com/wild-jobs-bushcraft-instructor/. Originally published March 5, 2020, on the Calgary Guardian website. Minor changes have been made to fit ATA style.
Math Lives in Stories

Tracy Evans

Tracy Evans shares her insightful journeys in her blog entitled The Value of Wonder (https://thevalueofwonder.wordpress.com/). This article has been adapted from her blog to share with our Connections readers. You can also follow Tracy’s inspiring work on Twitter @enans306.

I begin this piece by situating myself in the work: I am a settler from Treaty 4 territory with family roots in Austria, Germany and Scotland. My family arrived in what is now known as Canada with my grandparents’ generation in the 1930s and took up farming. I now live and work in Treaty 7 territory, where I have been for almost nine years. I work at Pitoayis (Eagle Lodge) Family School in Calgary’s Inglewood area near the bird sanctuary, the wild lands and the place where the river bends, Mohkinstsis. Our school teaches the Alberta programs of study through an Indigenous lens. Every day begins with drum, song, smudge and prayer.

This fall, I had the opportunity to facilitate a land-based learning session as a part of the CBE Indigenous education professional learning day. Our session on the land, specifically in search of math, begins with story. But before the story comes protocols; the land is an equal participant in our circle. When we enter a space, it’s rude not to greet the ones already there, to ask for the land to recognize us, to ask for teachings.

Ilkilinayookaa, Pitoayis Family School principal, often reminds us to “drum so the land recognizes us.” Each time we go outside to be with the land, we drum, sing and pray. On this day, too, with teachers, we begin by offering tobacco, drumming, singing and praying. I pray that my eyes, my ears and my heart might remain open to teachings that present themselves on the land.

Four Blackfoot values are central to Pitoayis Family School as guided by the Elders: Aatsimmolyihkani (spirituality and ceremony), Kimmapiipitsinni (kindness to others), Kakyosin (being aware of your environment, being observant), Aksistolypaitlapisiinni (being able to take on tasks independently). In addition, we are guided by the CBE’s Holistic Lifelong Learning Framework, also developed under the guidance of Elders: spirit, heart, body, mind. These values centre our work.

Jo-Ann Archibald (2008), in Indigenous Storywork, cautions that stories do not exist to be mined for content in the program of studies. For that reason, I am careful about the story that I choose; I am still young in this work, and as such, I am nervous to find myself on the land in front of 26 teachers and have no story to tell. So I carefully chose a story likely to present itself on the land. I try to attend to story protocols, verifying with a colleague, a valued Knowledge Keeper, that the story is appropriate for this purpose and to tell at this time.
“Raven and the North Wind” is a story I first learned from Saa’kokoto, so while there is a version of the story readers might learn online, I plan to tell the story I first learned in accordance with my teaching: acknowledge where the teaching comes from in order to ensure that it remains true. Engaging in a process of validation ensures that the story can be verified. Saa’kokoto, a trusted Elder who works frequently with the Calgary Board of Education, has been a valuable teacher for me, and we worked together with students over many sessions to tell this story that I now get to hold and to pass forward.

On the day of our professional development, the weather was cool with a slight breeze out of the north. As land-based educators, we know that no amount of planning can work around the weather. It’s going to be what it’s going to be. This is a lesson I have learned many times as a classroom teacher. It seemed that every time my team planned an extended day on the land, we got unexpected weather like heavy, wet, deep snow. We went anyway. We told stories anyway. The learning may not have been what we first expected, but the environment told us what to teach. We laughed. We passed forward teachings in the snow. The day was made more memorable because Na’a (the earth) was a participant in our day.

Before going outside, I asked teachers to begin by priming the brain for inquiry: begin by identifying the gaps that need to be filled with information. When seeking knowledge begins with questions, the learning becomes more meaningful. I asked teachers to spend some minutes looking specifically through the math section of the program of studies, looking for what might be challenging to teach on the land. How might we go beyond the obvious and begin to engage in more meaningful math discourse on the land?

While on the land, before telling the story, I reviewed Bishop’s six verbs related to the purposes of math (Bishop 1988, as cited in Czuy 2020, 44), which include counting, locating, measuring, designing, playing and explaining. The purpose of priming teachers’ minds is to support them in inquiry. If the brain is primed to look, we are more likely to see. Czuy’s “Awakening the Mind: Indigenizing Mathematics Through Local Story” suggests that mathematics might be more successfully taught through bringing together four domains: spirit, heart, body, mind. All four domains are essential to any learning experience. As Ryan First Diver (2016) explains in his series of YouTube videos related to the Blackfoot phenological calendar, a learning experience is repeated many times.
This does not mean *heard* many times but *experienced* many times, fully embodied with all domains integrated.

**How Do You Know? Drawing the Four Domains Together**

First, I asked teachers to make a personal connection to this story. What lessons have they possibly learned from this story? This is a practice I have learned from Saa’kokoto, who always brings his stories to a close with the same question: What lessons have you learned? With these words, the thrill of the story is broken. This is where learners might draw a lesson about not taking things that are not mine to take or helping those in need of help. This is a personal moral of the story. There is no wrong or right answer, but drawing the lesson that the listener needs to draw from the story is essential.

**Spirit**

Cultural identity and pride are braided into the work. Learners recognize themselves in the story and are able to make a personal connection. Learning begins when we see ourselves in it.

**Body**

Learners employ metacognitive strategies to draw stories back to mind, to remember. In my own mind, I frequently go back to that mental place where I remember writing an idea. It’s in the flower notebook near the end. I remember it was so cold on the land when we told that story . . . I engage in research by visiting the places in which the stories are located. Learning is literally encoded on the land and can be revisited by spending time with place.

Wisdom sits in places. It’s like water that never dries up. You need to drink water to stay alive, don’t you? Well, you also need to drink from places. You must remember everything about them. You must learn their names. You must remember what happened to them long ago. You must think about it and keep on thinking about it. Then your mind will become smoother and smoother. Then you will see danger before it happens. You will walk a long way and live a long time. You will be wise. People will respect you.

(Dudley to Basso in *Wisdom Sits in Places* 1996, 70)

Embodied learning brings mind together with body: I remember because I can call to mind where I was when I learned something. I can feel the sensation of the wind wrapping around my neck when I try to remember the story. I can map (locate) the learning because this story, this learning, lives in this place. I can map the story, but rather than labelling my map with the names of the places, I label it with the story. This is where it happened.

The question remains then, how does this story connect me to location? Can I tell this story with math?

**Heart**

The story is inseparable from the community, from the place, from the Elders. Learners know because the thinking is connected to place and to community. Begin with tobacco, with Elders, with drum, with smudge.

What does the story teach me about directionality? Which way is north? How can I know? It’s where the wind comes from. Since learning this story, I have become aware of the directionality of the wind. In the winter, it often comes out of the north. For this reason, I know that this story specifically belongs to this place.

**Mind**

Math helps to explain the story:

How do I know the north? Because that’s where the wind comes from in the winter. I know the north because I can notice the growth patterns of trees (Bishop: Measuring) (Alberta Program of Study: Trees and Forests, Shape and Space).

I can recognize and count the animals in the story (Bishop: Counting) (Number and Data Analysis).

Teachers asked the difference between a raven and a crow, so there is math in comparing raven and crow (Bishop: Measuring) (Shape and Space). I can measure the temperature difference brought by the north wind. (Bishop: Measuring) (Data Management). I can explore animal adaptations that allow Raven to live here all year while others need to leave (Grade 1: Needs of Plants and Animals, Grade 3: Animal Life Cycles).
What do the trees teach us when we are *kakyosin* (observant) enough to draw a lesson? Turn away from the cold.

**Inquiring**

The learning is socially held—when we gather in a circle to retell the story and bring together what has stuck in my mind with what has stuck in your mind, when we build the true version of the story by bringing the wisdom that lives in each of us together. Anxiety is lessened when I know I am responsible within my community but not alone in my learning.

Math anxiety appears when the math is decontextualized, separating spirit, heart, body and mind. Math lives in stories and is used, specifically in this situation, for counting, locating and measuring. I think this learning, weather related, science related, therefore, also lives in another of Bishop’s verbs: designing. I can explain the logical orientation of a Blackfoot tipi based on the observable weather phenomena of this area, so this exploration of where math lives is ... to be continued.

**References**


GEOEC thanks Tracy Evans for sharing her insights and journey with us and wishes her the best. We look forward to reading the continuation of her story in our next journal planned to be published in the fall.

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I was told throughout my teaching program that the first year in the profession can be traumatic. I was told to prepare for long nights, early mornings, stressful days and post school-day tears. I mean, yes, they were right; a teacher’s first year is tough. The expectations are high and rightly so. Education professionals work hard to set high standards, and I consistently see them meet and go beyond those standards. It is a privilege to learn from educators who demonstrate both a passion for teaching and dedication to their students.

Observing these teachers has helped me realize that teaching doesn’t always have to result in sweat and tears. It can sometimes graciously turn into learning and adventures. Outdoor education has provided a unique and meaningful opportunity for me to engage with students in nature.

As I started exploring the outdoor education world, I asked educators around the province how they would define outdoor education. Some educators define outdoor education strictly as an outdoor experience and a pursuit of skills in the outdoors, such as starting fires and building shelters. Others view outdoor education more holistically as a development of self. One educator eloquently said that outdoor education “aims to develop the knowledge, skills and positive attitudes of students as they make sense of the world in a personal way, establishing a sense of self in relationship to the environment and the outdoors” (Daniel Y, Lethbridge).
Other educators differentiate outdoor education from the traditional classroom, filled with desks and chairs. They view outdoor education as “learning in an environment that is more intuitive, natural and tactile than typical educational settings” (Daniel V, Crowsnest Pass). Outdoor education is an opportunity for students to explore learning in a new environment. Other subject areas like art and music can be unique and exploratory, but they are still generally taught in a classroom with four walls. Outdoor education provides a unique opportunity to explore without the confines and expectations of a classroom. It is an opportunity for students to develop “curiosity about the outdoors in a supervised environment.” Outdoor education encourages students to “take minor risks in order to develop life skills or find new passions” (Katrina S, Calgary).

A Canmore-based educator explained that outdoor education is meant to be “learning in, of and for the outdoors” (Colleen L, Canmore). One cannot confine outdoor education to one definition. It cannot be only skills based, only theory based or lessons that simply take place outside. The many branches of outdoor education make it a robust web of environmental advocates, outdoor skills leaders and experts on the many views of nature.

In my first year of teaching, I have been fortunate enough to partake in a few outdoor education opportunities. One such opportunity was the supervision of a Grade 8 skills camp in Fish Creek Park in Calgary. I cannot take credit for the planning or facilitating of the day, but I was able to see first-hand the effect the experience had on students. Students learned how to start a fire, use a camp stove, set up a shelter and pack a hiking bag. They were beyond excited to be outside, and student engagement was exceptional. Students learned valuable skills for the outdoors and engaged in personal reflection. Skills-based learning was evident, and the holistic view of outdoor education was prevalent as students reflected on the purpose of the day, how to apply the skills in other parts of their education and how they worked with other people.

I look forward to further exploring the unique intertwining of holistic learning and skills-based learning in outdoor education. I continue to learn from the exceptional educators in our province, and I look forward to connecting with students in the outdoors.
Hello. Can everyone hear me? Sorry, wait, let me unmuter my mic. I think I was muted. OK, let’s try this again. Hello, class! I am going to share my screen now for today’s lesson. Can everyone see my screen? Great, thanks for typing in the chat bar. It helps because I cannot see everyone’s faces. Today we are going to learn about the forests of Alberta, starting with slide one. Here you can see a photo of an aspen poplar tree.

After a year of online learning and very little face-to-face interaction, being able to get outdoors as a class is very refreshing. No matter what age, all humans benefit from face-to-face interactions and the natural environment. With no phones or technology, just fresh air and conversations, you do not have to worry about unmuting your mic.

My fellow classmates and I, from the bachelor of health and physical education ecotourism and outdoor leadership program at Mount Royal University, got the opportunity to develop and run activity days for students at Vincent Massey School, in Calgary. Our ultimate goal for both days was simple: create a fun (and COVID-19 safe) experience for the students. After far too many Zoom calls and Google meets, it was vital to get students outdoors learning among their peers in a natural setting outside the squares of their screens. Day one really focused on developing leadership skills through fun games, and day two was all about building those hard skills. Stations like stove set-up, bear hangs and navigation were organized to help foster independence and outdoor leadership skills. Ultimately, the junior high students will develop enough skills to be able to go on a backpacking trip through their outdoor education program, led by their teacher, Court Rustemeyer.

Resilience, character building, compassion, leadership and teamwork are just some of the many benefits that come with learning through outdoor education. Humans are not meant to interact behind screens, separate from the natural world. We are a part...
of the ecosystem and natural world that surrounds us. It is of utmost importance that younger generations experience the natural world, learning in it and with it, so that environmental stewardship can be fostered. We protect what we love, and instilling the importance of the outdoors in kids when they are developing is imperative not only for the planet but also their minds, bodies and spirits. The freedom to explore is innate in children, and learning in an outdoor environment really fosters natural curiosity.

One cannot understate the importance of learning, for it is lifelong. Bringing teaching outside of the four classroom walls and square screens of technology is vital for an enriching learning experience. Now, more than ever, it is vital to get outside into nature. If done in a COVID-safe manner, learners can reap benefits that far outweigh the risks. We must continue to push for outdoor education opportunities for all students, as all benefit from these experiences. As a student in the outdoor leadership area working to pursue outdoor education, I can say for certain that the smiles on the kids’ faces from Vincent Massey and my fellow peers at Mount Royal University say it all. We are all happier outside.

Resources

- Global, Environmental & Outdoor Education Council
  www.geoec.org/
- Take Me Outside
  https://takemeoutside.ca/resource-directory/educational-resources/
- Leave No Trace Canada
  www.leavenotrace.ca/home
- Sharing Nature with Children, by Joseph Bharat Cornell, 2016
- Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder, by Richard Louv, 2005

Suggestions

- Remove technology from children when and if possible for outdoor education activities. For example, at the start of the day or class ask students to put their devices into a phone bin until the end of the day or class. This allows for kids to just be kids and to have real conversations with no distractions!
- Bring some of your gym and science classes outdoors when and if possible.
- Weave the natural world into your lessons: grow plants and seeds, tell stories and so on.
- Take time to learn the history of those who came before you and lived on the land, for example, land acknowledgements and stories.

Emma Marple was born and raised in Streetsville, Ontario. She is an adventurous spirit, who is passionate about everything in the natural world from getting her hands dirty and growing food to going for a walk in the woods. Currently, Emma is a student at Mount Royal University, where she is completing a bachelor of health and physical education, majoring in ecotourism and outdoor leadership, with a minor in geography. She also has a diploma in nutrition and healthy lifestyle promotion from Humber College, in Toronto, and loves the connection of the environment to the food on our plates. She enjoys exploring and has travelled to many places including Spain, Morocco and New Zealand. She most recently lived in Scotland before returning to Canada to pursue her studies. You can find her enjoying the outdoors with trail running, rock climbing, canoeing, hiking, camping, biking or just simply standing in the sunshine, breathing the fresh air.
The History and Biology of the Honeybee

Rhonda Thygesen

One of the most rewarding experiences about working with honeybees is that everyone is inherently interested in them. There are several reasons why honeybees could be considered invaluable. Perhaps it is the deep gratitude for their all-important services to the global agriculture economy, for example, pollinating fruit and vegetable crops. It could also be because we have grown up associating them with happy things like sunshine, flowers and honey. Nonetheless, they are an indispensable organism that humans have developed a historic relationship with. To learn more about the honeybees’ evolutionary story and biology, I’ve decided to share an excerpt from Mark Winston’s (1987) *The Biology of the Honey Bee*.

Bees are essentially wasps that have abandoned predation in favor of building nests with nectar and pollen. Typically stinging wasps are carnivorous, feeding on other insects for larval food while adults use their sucking and lapping mouthparts to feed on nectar from flowers. Bees are thought to have evolved from a wasp ancestor, with mouthparts also capable of collecting nectar from flowers. Consequently they collect pollen from these flowers, which they feed on for protein rather than killing prey. While bees have emerged from wasps in many features, the most distinctive morphological differences involve specializations for pollen collection. All bees have broadened hind legs with plumose hairs, which are adaptations for gathering pollen and transporting it back to the nest. Because of their distinctive pollen-collecting structures and habits, bees are classified in their own superfamily: Apoidea, order: Hymenoptera. (p 4)

The earliest bees may have arisen in the paleo continent Gondwana. This was probably the area of origin for flowering angiosperm plants (Cappellari, Schaefer and Davis 2013). They are thought to have diverged from stinging wasps 100 million years ago in the Cretaceous period (Michener 1974), around the same time as the appearance of angiosperms as the dominant vegetation. The evolution and divergence of bees has been closely linked to that of the angiosperm plants, with the plants evolving flowers with odours, shapes, colours and excess nectar and pollen food rewards to attract bees, and the bees in turn providing a mechanism to transfer pollen between plants. The coevolution of these two groups has been one of the dominant themes of recent evolutionary history (Winston 1987, 4–5).

As angiosperms developed more complex longer, tubular flowers, bee mouthparts also had to evolve from short- to long-tongued mouthparts. The western honeybee, *Apis mellifera*, was one of these long-tongued bee species. Its scientific name means honey-bearing or honey-producing bee, and refers to the bees’ habit of collecting nectar and producing honey to allow colonies to survive dearth periods (when nectar flow is at a minimum, usually after fruits and vegetables go from flower to fruit) (Winston 1987, 5).

Honeybees are classified in the family *Apidae*, and their close relatives include the orchid bees.
(Euglossini), the bumblebees (Bombini) and the stingless bees (Meliponinae). All of the Apidae are characterized by the presence of a corbicula or pollen basket on the outer surface of each hind tibia, at least in female workers, and this structure is used to carry pollen and nest-building materials. All of the Apidae show some degree of social behaviour, and the Meliponinae and Apinae have the most social behaviour of all the bees (Winston 1987, 5).

The natural habitat of the honeybee Apis mellifera extends from the southern tip of Africa to Northern Europe and Southern Scandinavia. With such a variety of habitats, climatic conditions and floras, it is not surprising to find numerous subspecies of honeybees, each with distinctive characteristics adapted to each region. Still, recognition of the various races has been difficult for many reasons. Most important has been the movement of honeybees all over the world for beekeeping, which has changed the natural range of each species and has resulted in hybridization of species. Selection by beekeepers for traits useful in management may have altered the natural genotype of species as well. The factors scientists may use to distinguish a species of bees are different from what beekeepers might consider: colour and behavioural traits, such as tendency to swarm, good honey production and gentleness. There is also tremendous variation in one species, so what is typical for one might be subjective for the other (Winston 1987, 8–9).

The western honeybee or European honeybee (Apis mellifera) is the most common of the 7–12 species of honeybees worldwide. Like all honeybee species, it is eusocial, creating colonies with a single fertile female (the queen), many nonreproductive females (the workers) and a small proportion of fertile males (the drones). Individual colonies can house tens of thousands of bees that communicate through both pheromones and dance language. The western honeybee was one of the first insects to be domesticated, and it is the primary species maintained by beekeepers to this day for both its honey production and pollination activities. With human help, the bee now occupies every continent except Antarctica.

Bibliography


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An Interview with Artist
Katie Holten

Amy Brady

This article was originally published on Artists and Climate Change, a blog by Amy Brady, on April 4, 2019.

This month I have for you a fascinating interview with Katie Holten, a visual artist and self-proclaimed “resistance fighter” based in New York City. She’s the creator of the New York City Tree Alphabet, an interactive project that lets you type in trees. Really!

What is the New York City Tree Alphabet?

The New York City Tree Alphabet is a new ABCs. Each letter of the Latin alphabet is replaced by a drawing of a tree from NYC parks’ existing native and non-native trees, as well as species to be planted as a result of the changing climate. For example, A = ash, B = birch, C = crabapple. It’s a font and an alphabetical planting palette, allowing us to plant living messages with trees. I wanted to create something beautiful, accessible and fun, but also practical (it’s a planting guide), serious (it deals with New York City’s changing climate), and ridiculous or curious (why on earth write with trees?!).

What inspired the project?

Oh, many things. The project didn’t grow from a single seed; it has many roots, many branches.

Does it grow out of your 2015 book About Trees (Broken Dimanche Press)?

Yes! I made a Tree Alphabet so I could translate texts into trees. I wanted to create a language beyond humans. I’ve always been fascinated by the inextricable relationship between humans and nature, the problematics of language and the fact that we are nature. By using words, we create a divide, an invisible barrier separating one from the other. When we name things, we confuse the name for the thing. I was interested in transforming words into something not quite legible, forcing the reader or viewer to really think about the individual letters, characters, words, names. It was only after I made the book, About Trees, that I realized that the tree alphabet could be used in real life as a planting guide.

How do you hope people will use your alphabet?

Part of the fun is not knowing what possibilities others will see in it and what may emerge. But I hope that people will share some heartfelt words and messages with us, so we can select some to plant around New York City with real trees. We are hoping to start the first phase of planting as soon as April 2019.

Have you received a response yet?

Since first sharing the Tree Alphabet in January, we’ve received words, poems, short stories and simple thank you messages written in Trees. A few people told me how 20 minutes slipped by while they played with the alphabet. Imagine if we all had 20 minutes a day, or even 20 minutes a week, to think in Trees. I’ve also had...
requests to share it with children in classrooms and to go for nature walks in city parks. I was at the Children’s Museum of the Arts a few weeks ago, and we had great fun screen printing the Tree Alphabet. All those kids got to take home their own prints of the alphabet, so hopefully it’ll live on in their bedrooms and inspire tree dreams and branching thoughts that will lead who knows where. Most of the kids wanted to see their name written in Trees, so that was our first exercise. But I hope that with older children and with more time for conversation, we can start thinking about what other words—dreams, hopes, memories, love letters, stories—we could share with Trees.

The NYC park rangers are also excited to create adventure guides using the alphabet that they’ll share at all the city’s nature centres this summer. That should be a fun way for kids and families to read the landscape, creating and solving puzzles by reading and writing with Trees. Who knows what they might discover!

The tree alphabet isn’t your first alphabet. What draws you to the artistic use of ABCs?

I’ve worked with language for years, but never in such a finite way. I’d never created a complete or closed written system like this before. It’s definitely a political project. It grew from the confusion around simple daily language. Facts and truth don’t seem to mean anything anymore or are being twisted into all kinds of ugly, distorted realities. I created my first tree alphabet back in 2014/15, so my feelings about this have only gotten deeper and darker since then. I felt compelled to create something beautiful that speaks the truth. Trees can’t lie.

In 2016 I was invited to work at the Camargo Foundation in Cassis, France, and immediately realized that the limestone I was studying was telling stories. I wanted to read and write the stones. The stone alphabet emerged. It’s a very different kind of alphabet project—it’s infinite; there’s no ABC. Whereas the tree alphabets are figurative and readable, the stone alphabet is abstract. I should also
mention that my sister had identical twins in 2013, so I discovered the wonderful world of baby books. It can’t be a coincidence that a year later I started making my own ABCs.

Thinking about them, the next generation—Generation Anthropocene—has been profoundly disturbing. What are they going to have to cope with when they’re my age, and how will they cope? Education is so important, so it seems like the simplest, most basic thing we can do for ourselves and for our kids is to create new ways to read the world, to read a world beyond our human one. We’re the monster destroying everything. We need to learn to see with others’ eyes, to understand that we’re only a tiny part of this large web and everything else here on earth is also living, breathing, communicating.

What are your thoughts on the role that art can play in activism?

Art is a way to make sense of the world. For me, my work has always been a research project. I’m fascinated by how things work, always questioning things, trying to understand how one thing relates to another thing, where we fit into it all, trying to draw out underlying and/or invisible patterns that create meaning in all the seeming randomness. My work has always been political, but often not in a loud way. I like to leave everything open for the viewer to read themselves and come up with their own answers. But since the US election, everything’s been turned inside out. Since 2016 I’ve been carrying words of resistance with me every single day. It’s exhausting, but I can’t imagine not carrying some sign of resistance, of persistence. I wear

![RESIST, Katie Holten, 2019](image-url)
ribbons and buttons that are handmade by other artists. It freaks me out that most everyone else looks so normal, no sign that anything super freaky and convoluted is going on. We’re living through a national and global emergency, but you’d never know it by the way people look.

I think art is necessary to start conversations and provoke discussion and create change. I’ve been invited to show in museums and biennales, and that’s wonderful, but it’s real-world conversations that mean a lot to me and feel real. We need to understand what we’re doing as a species. It’s critical. For years, decades now, I’ve been grappling with how to create real change. I’ve worked with scientists and climate scientists, participated in conferences and symposiums, and all too often the artists (despite the scientists’ best intentions) are expected to produce beautiful, engaging illustrations of climate science. This serves a purpose; I think newspapers and news outlets need more and more of this. But, is it too little too late? What can I do to make a difference? My partner Dillon Cohen and I started having more formal conversations with a community of activists in NYC and that led to our Sunday salons.

What are the Sunday salons?

They’re monthly gatherings hosted by me and Dillon at our loft in Union Square to discuss the possibilities for art and activism in the Anthropocene. We started them in 2014, inviting a small group of friends and colleagues who were also grappling with the issues. Guests have included writers, activists, climate scientists, curious thinkers. Roy Scranton shared work-in-progress from his book Learning to Die in the Anthropocene, Jennifer Jacquet introduced us to the power of shaming, we looked at deep time, geoengineering, genetic modification, and love in the Anthropocene. Every conversation seemed to circle back around to the need for new stories, a hunger for storytelling. All this definitely fed into my tree alphabets and the book About Trees. For a few years we were holding the salons regularly, once a month on Sunday afternoons. But the last year I’ve been on the road a lot and our building is under construction, so we’ve had to pause them, unfortunately. The Sunday salons are a safe space where we can gather to share our fears and hopes and discuss action. In a way, the Tree Alphabet grew from the salons. We’d only had one or two salons when I had a moment of clarity [in the middle of the night, of course!] and realized my tree drawings could replace letters. Trees are characters; they can slow us down and share their truth with us.

What’s next for you?

I just arrived at MacDowell, so I have the luxury of space and time and silence to read, read, read, catch up with myself, breathe, breathe, breathe and walk in the trees. I’m finishing up a few projects, including a stone alphabet (field guide to Manhattan) for the next issue of Emergence magazine, on the theme of language. I’m also working on a new book, a sister to About Trees, using the New York City Tree Alphabet. I’ve also been invited to develop a new tree alphabet into a children’s picture book, so that’s very exciting! When I get back to the city in April, we hope to begin planting messages in trees, so I’m busy trying to resolve questions about signage.

E-mail your work, poem, dream, love letter or message—in Trees!—to Katie at studio@katieholten.com and read more about her work at her website.

This article is part of the Climate Art Interviews series. It was originally published in Amy Brady’s “Burning Worlds” newsletter. Subscribe to get Amy’s newsletter delivered straight to your inbox.

Amy Brady is the deputy publisher of Guernica magazine and senior editor of the Chicago Review of Books. Her writing about art, culture and climate has appeared in the Village Voice, the Los Angeles Times, Pacific Standard, the New Republic and other places. She is also the editor of the monthly newsletter “Burning Worlds,” which explores how artists and writers are thinking about climate change. She holds a PhD in English and is the recipient of a CLIR/Mellon Library of Congress Fellowship. Read more of her work at AmyBradyWrites.com and follow her on Twitter at @ingredient_x.

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Sunrise Students

Samantha Ur

Sometimes you have to let the students decide.

Once a week, I take my science students outside for nature journalling. The idea is that you are outside, exploring, and using words and drawings to collect information and questions. My hope is that this brings out their inner explorer and naturalist.

I had a plan to take the students outside to collect data about their adopted trees on this particular day. While I love using this lesson to show students how much their trees grow during the school year, something about this morning changed the plan. How often does nature inspire us to change course and try something different? Isn’t that something we love about the outdoors as educators and explorers?

In the beginning of November, my classroom was in peak position to watch the sunrise in our morning class. During this time, we admired and grew excited, and were calmed by the magnificent colours we saw.

On this particular day, I decided to use that as my science nature journalling idea. We took our journals outside and sat down by the learning garden. We started, as we always do, with the date and what the weather is like. Once we were settled and set up, all I said was that we are going to draw what the sunrise looks like. The look of happiness and excitement on even my most reluctant students was worth it! They loved watching it through the window, but it added extra excitement to devote their full attention outside.

The Grade 5 students were so excited about the sunrise, they had to run to the fence to watch it happen.
to just that. Many of them told me stories of camping and watching the sunrise, or mentioned how they have never watched the sunrise before. With that excitement, we began colouring and paying attention to the colours, the clouds and the patterns we saw in the sky.

If you want to see Grade 5s focused and on task, have them draw and colour something that interests them!

They were adding detail, shading, combining colours, adding trees in the foreground and looking at the clouds above. What a class! In one 20-minute session I heard conversations about why the colours were changing so fast, how neat the clouds looked and when the sun would rise. The scientific thinking, all centred on the sunrise, was astounding. They were using their senses, enjoying class and inquiring about natural phenomena all on their own.

Eventually, their excitement couldn’t be contained, and we had to run to the fence to get as close as we could to watch the sun peak over the horizon. This tested their patience but led to a group experience unlike any other.

They have asked that we do it again. They have asked that we journal in the morning so that we can watch the sunrise again. I said we would. How could I say no to students who love an outdoor experience?

Samantha Ur is passionate about the outdoors and taking kids outside in all weather! She teaches Grade 5 full-time (as well as outdoor education and leads the Green Club at her school). Some of her favourite pastimes are camping, backpacking with friends in the Rockies, taking advantage of the Edmonton River Valley trails and running outside with her dog Kira. She is the tree hugger in her family and proud of it!
I think of myself as an explorer, and as an explorer, the best journeys I embark on are the ones I take as an educator. Each year, a new group of students sets off with me on a learning journey. This past year, that journey took us to new and exciting places.

Before the 2020/21 school year, I knew we were in for a bumpy ride. We had been learning online in spring 2020. The students were permitted back to in-person learning in September 2020 but with a large percentage choosing to continue to do online learning.

Taking the Geo-Inquiry Journey

During that spring of online learning, I reflected on what was important to me in my teaching and concluded it needed to be authentic and worthwhile. I discovered a clear roadmap for accomplishing this in the National Geographic course Connecting the Geo-Inquiry Process to Your Teaching Practice.¹ I decided to build a year-long geo-inquiry project around the five steps of the process: ask, collect, visualize, create, act. The project integrated all subjects. The 25 students in my class drove the project in a determined way, with other classes contributing artwork and interview ideas along the way.

I teach in Edgemont, a community including many first- and second-generation immigrants to Canada. Many of our students live in multigenerational households, whose elderly members often face higher risk from COVID-19. A greater percentage of my students did online learning than in the wider city of Calgary, so a goal for the year became to connect the community through a shared space people could visit, learn about and come to value.

As we gathered in the first weeks of class, it was clear this group showed resourcefulness and determination, and they jumped right ahead into thinking about the act part of the geo-inquiry process. The other thing I noticed about this group was how much they loved to talk, I mean really loved to talk! During those brief times throughout the school year that we went back online, the entire group would unmute their speakers and tell me everything they were thinking, all at once! Understandably, connecting with others had become very precious to them.
Setting Out

As the year unfolded, the class and I considered what our action should look like. Geo-inquiry starts with a meaningful question (the ask phase) that leads to action—a question that helps the students better understand and address an issue from a local perspective.

The students decided they wanted to build connections to the local land through discussions with Indigenous Elders, community members, authors and science experts. They wanted to help others connect with nature and one another. And they were curious enough to find ways to make this happen.

The community action we were after was summarized by a student who said something along the lines of: “We want to change the mindset of people. The people who enjoy nature are already out going for walks and exploring. We want to encourage people who normally don’t go out, perhaps because they are busy playing video games, working online or don’t know what to do when they get outside. We want those people to get out and see the benefits of spending time in nature and to change their mindset. The best way we can think of doing this is to tell them a story about the importance of things to learn and discover outside. Getting them out to hear a story will make them want to be more connected as a community and to nature.”

The students asked:
- What are ways to bring a community together safely during COVID times?
- How can we get people outside? How can we make the outdoors interesting to people who may not already be going outside?
- How can the fifth graders be leaders?
- I added: How can we talk and be heard?

Giving Space to Find Our Way

Through their experience with COVID, the students realized more than ever just how interconnected the world is. They started looking at ways they could create, illustrate and celebrate positive connections. To make informed decisions about how to make this happen, we looked at how complex and dynamic human and natural systems interact. Since collecting data and information is an essential component of the Geo-Inquiry Process, we looked at many different types of data using different methods of collection, including images, sounds, video clips and maps. This task of collecting is the second phase of geo-inquiry.

We began exploring who our audience would be. One of the most powerful ways we did this was to look at maps. With the help of a virtual visit from Angela Alexander, a K–12 education resource developer for...
ESRI Canada, and data maps of our city, we started collecting information. We looked at who in our community would be most likely to listen to the stories we told. My students discovered there was a higher percentage of multigenerational families and people over 65 in our community than in the city overall. This led them to decide that the people most likely to be out walking on our trails would be people who would want to listen to stories as they walked—and who would have time to listen. We also mapped where natural spaces were located and where the students could share these stories. Many students said they hadn’t realized how many green spaces they had in their neighbourhood.

We knew that an important part of our learning would be from the land itself. We spent regular time outside in natural spaces, where the students developed a deeper sense of place. We discovered there is something transformational about learning outside together. Standing in a circle acknowledging the land, we saw that nature-rich spaces and authentic learning can happen in our local community’s outdoor spaces.

Guidance Along the Way

An important part of the geo-inquiry process is sharing the story of our journey with others (the act phase). We wanted a way to record and share stories and conversations so they lived beyond the walls of our classroom. Podcasting seemed like a natural place for this. The students loved the idea of creating a podcast to share conversations and stories. They wanted to collect these interviews to share with our community. We were discovering just how captivating and powerful stories could be: they hold truths, treasures and life lessons. The students were hooked.

Striving to develop a sense of community, we invited Walter MacDonald White Bear, a Cree musician, to talk with us about storytelling through music. He said, “I think a lot about nature and what I have learned from my Elders when I play music, particularly the flute.” The students knew the best way to capture an audience was through their hearts, and Walter suggested music could help with that. We collaborated with Walter to develop an engaging musical introduction to our podcast.

Interviewing for the Podcast

As an educator, I found it fascinating to notice who the students gravitated toward for the interviews. They were very interested in people connected to the outdoors. Their questions also often showed a curiosity about resilience. They asked Colin Harris, founder of Take Me Outside, how he was able to run all the way across Canada. They asked Jane Jenkins, who is a professor and has researched pandemics, how people in the past persevered. The students were also
enthusiastic about Jamie Bastedo (2020) and his book *Protectors of The Planet: Environmental Trailblazers from 7 to 97*. I think the students felt they had found a like-minded person, someone interested in hearing stories of positive impact and change.

They wanted to know about the origins of the Grow Alberta and Humphrey Nature Trails projects, both of which kids started during the pandemic to make a positive change in their communities.

Through this journey, we realized more and more that stories create magic and a sense of wonder about the world. They can carry messages of hope. People have an innate love of stories. Stories teach us about life, ourselves and others. The students discovered that every person has a story worth sharing, and podcasting was a meaningful way to share them.

**An Ending Viewpoint**

The students felt that once they had a story it begged to be shared. While interviewing Joan Marie Galat, author of many books sharing traditional Indigenous and science stories, a student was persistent in asking her what her spirit animal was. Joan mentioned liking the moose. After the interview, the students were excited about the idea of animals showing strength and resilience, just like the individuals they were interviewing. The students loved the idea of creating art featuring local animals that would reflect the stories they had collected.

When deciding a way to share the stories with their community, the students turned to ArcGIS StoryMaps. The students had become familiar with ArcGIS while collecting data for the project. They had found that people from different backgrounds and places all had a connection with the outdoors and the resilience and hope that comes with it. They loved the idea of being able to visualize and create a StoryMap to share the voices of individuals from across Canada with our local community. We were curious if we could combine a map of where the interviewees were with the podcast of them sharing their stories, and StoryMaps allowed us to do so.

Copies of the finished art piece were hung around our community with a QR code linking to our podcast so people could listen outside. It was so exciting, in this act phase of geo-inquiry, to see and hear feedback from delighted community members who got out and experienced our outdoor community spaces through this project.

As I reflect on this year’s project, I feel hope. I am filled with hope as I witness organizations like National Geographic, through its COVID-19 Remote Learning Emergency Fund for Educators and inspiring free courses, and ESRI Canada through its program and educational support, championing our youth. Community members willing to share their time to have heart-to-heart conversations with my students also give me hope. Mostly, I take hope from watching these young elementary students courageously reach out to others, value natural spaces and work hard to create a positive world.

**Notes**

1. National Geographic Society
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**Reference**

Alison Katzko is a National Geographic certified educator and loves the arts and exploring. She currently teaches Grade 4 in Alberta and previously taught in Bhutan, Thailand and the United States. She values developing a passion for the natural world through greater understanding of Indigenous and land-based knowledge. Her students have connected with explorers and scientists around the world, including through the National Geographic Educator-Explorer Exchange. She is the journal editor for Connections, the journal of the Alberta Global, Environmental and Outdoor Education Council.

The National Geographic Society provided funding for this project, and the National Geographic Education Blog originally published this write-up. The blog is a platform for members of National Geographic’s educator and youth communities to share their experiences, from practical wisdom to personal reflections, and to connect with one another. For more, follow National Geographic Education on Twitter @NatGeoEducation and Facebook @natgeoeducation.

You can listen to the podcast at https://storymaps.arcgis.com/stories/395d9315517f4b35abc126bfa7978fc3. Photos courtesy of Alison Katzko.
Edmonton Wild Child-SCCF: Inviting Urban Nature Back into People’s Lives

Paulina Retamales

We are most definitely living in unprecedented times with new generations spending much of their time indoors. Too many of their interactions are mediated by digital technologies that are a hollow replacement for real connections with each other and nature. There is growing recognition that children are disconnected with others and their surroundings, which makes them feel “alienated from nature” (Briggs 2016). This is also known as nature-deficit disorder, a term used to describe the adverse personal and societal impacts of disconnecting from nature (Suttie 2016), which is taking a toll on children’s health and well-being. This separation from nature, however, is an unintended consequence of our modern world, and it is our responsibility to generate changes for future generations. This is especially relevant when one considers that 81.48 per cent of the total population in Canada lives in cities (O’Neill 2022). How do we invite nature back into our lives and spark enough desire in children, youth and families to willingly want to be, play and even interact with nature in their neighbourhood?

Sierra Club Canada Foundation (SCCF) is an environmental organization that sponsors nature-based programs and helps bring nature into the lives of many families across Canada. Since 2010 Wild Child-SCCF has been connecting children, youth and families to nature by using urban nature pockets to spark and foster a love for the great outdoors and creating programs that allow for “close encounters” with nature without leaving home. The mission of our Wild Child programs is to provide child-led, play-based learning through repeated exposure to nature, thereby fostering lasting relationships with the natural world.

In January 2019, I was invited to join Wild Child and be part of a movement that not only provides Edmontonians to play and learn in natural areas but also supports children’s individual journeys in nature. As a proud mother of two children and a Wild Child educator for Sierra Club Canada Foundation, I believe it is our responsibility to provide children with the opportunity to explore and experience nature daily. I feel compelled to help younger generations build a personal and powerful connection with the natural
world that will hopefully shift their sentiment and values regarding nature and create ties to the land in which they live.

One of the most notable accomplishments of Edmonton Wild Child is the capacity to bring together a coalition of educational institutions that envision a better future for children. Since 2019 more than 2,000 participants directly benefited from Wild Child programs in the Edmonton region, and have had opportunities for active exploration of urban nature and constructed deep environmental knowledge of the world around them. We are proud to have generated changes among teachers, children and caretakers to encourage child-oriented, play-based activities and have supported Edmonton’s poverty reduction initiative by providing fair access and removing financial barriers to help more children get into the “wild.”

Wild Child Edmonton has three established and recognized programs:

**Nature Immersion** (for children ages 3–6, which is offered to schools, day cares and early learning centres): This program is designed to inspire a love for nature and help connect children with natural surroundings proximate to their home. An educator will visit the classroom on a biweekly basis (three visits per centre/school), and each session lasts anywhere from an hour and a half to two hours. The program takes place primarily outside in a natural space close to the child care centre or school. The activities that take place in a Nature Immersion program are unique to each location and the participants’ interests.

**ECO-Buddies** (for children in Grades 4–6): This program provides children with not only more opportunities to discover natural areas in their community and reconnect with their own local habitats but also repetitive exposure to nature in different seasons (winter/spring/early summer). As they start to get involved with these spaces and connect with them, they will start to feel attached to their own community and become eco-literate, learn about climate change, and become responsible stewards of the land.

**Forest School** (for children ages 3–10): This program is directed and inspired by the child,
and driven by a process of inquiry-based learning, designed to build a relationship with the land through regular and repeated access to the same outdoor space over an extended period. We allow children to freely explore their natural surroundings and encourage curiosity. We hope that this program will have lifelong benefits for kids as they develop physical abilities and risk assessment skills acquired while spending time climbing over rocks and tree roots, and playing on uneven ground, creating habits for lifelong, active living.

We are currently piloting the forest leaders for youth 11+. This program will focus on youth engagements, offering tools and experiential land-based education for developing stronger relationships within communities. It will also empower young people as confident leaders, able to use their voices and contribute to making changes in their communities.

Our main objective with Wild Child programs is to create opportunities for active exploration of local environments and build deep environmental understanding of the world around us, even in an urban setting. We believe that Wild Child empowers families to shift toward slowing down life’s pace and take the time to go outside to discover natural areas in communities and reconnect with local habitats. Our goal is to enable children to feel at ease and comfortable in nature, allow them to experience being in nature and develop the capacity to be with nature and start to notice small but amazing life around them. As they start to get involved with these spaces and connect with them, they will start to feel attached to nature, and care for our environment.

Research shows that “Kids need to experience discomfort so that they can learn to work through it and develop their own problem-solving skills” (Hurley 2020) Wild Child encourages kids to embrace risks and learn to explore outside of their comfort zone to build resilience skills that will serve them throughout their lives. Now more than ever we need to provide opportunities to help children find healthy ways to express their emotions and develop a mindset to prepare them for the future.

If you agree there is an instinctive bond between human beings and other living systems, an intuitive “love of life” (Rogers 2019) then let’s all do our part to invite urban nature back into children’s lives and create awareness of nature just around the corner from our homes. Join us for some risky play in piles of leaves, mud and snow! We will learn about what different
seasons mean for the animals and plants that surround us, throughout Edmonton’s River Valley, and we will also learn about ourselves! We will learn to appreciate that we can move confidently and respectfully through our natural environments in all types of weather!

References


Paulina Retamales is the Edmonton and area Wild Child project coordinator, Sierra Club Canada Foundation.

Nature Immersion
We All Belong in Nature: Three Tips for Supporting Student Well-Being Through Inclusive Nature Connection

Jaclyn Angotti

Ever wonder why the world just feels better on a sunny day, or even a rainy day for that matter, if you’re outside? Or why the brightest light bulb moments happen when you’re simply watching the clouds go by? Recent research confirms that our well-being is entwined with our connection to nature (Holland et al 2018; Louv 2017; Richardson et al 2016; Twohig-Bennett and Jones 2018). We are part of an intricate web of life that includes humans, plants, animals, water and the land itself. It is crucial to our well-being that we have a sense of belonging within this web of life.

Unfortunately, not all students have access to the benefits of nature. Students from Black, Indigenous and People of Colour (BIPOC) communities may face numerous barriers to accessible outdoor play. I want to pause here to recognize that I am using the amalgamated term BIPOC to facilitate communication about students impacted by racial inequality. However, every individual, community and nation are distinct and cannot be grouped. Each student has their unique experiences in nature and society. While I believe the tips I’ve provided below are inclusive, I cannot claim they will support every student.

Racism and racial inequality may make nature an unsafe, unwelcoming space for BIPOC students (Calderon 2014; de Hoop 2017; Friedel 2011; Li and Ernst 2015; Paperson 2014; Smith 2015; Stapleton 2020; Thomas et al 2014). BIPOC youth may have limited access to outdoor play due to inequities such as limited access to green areas, less leisure time, environmental racism and lack of appropriate outdoor gear. Even if BIPOC students have access to outdoor...
opportunities, they may feel unwelcome. BIPOC youth, through a lack of representation in outdoor recreation and environmentalism, may feel that the outdoors and environmentalism are not for them. Students may also struggle to reconcile westernized education with the different ways of knowing that they learn with their families, Elders and communities.

So, how can you, as a teacher, address racial inequality in the outdoors to provide inclusive nature connection opportunities for your students? How can you help all students feel like they belong in nature? Here are a few tips to get you started:

**Touch, Taste, Smell, See or Listen to Nature**

Sensory connection to nature can decrease stress, lower heart rate and blood pressure, boost immune function and so much more! Plus—it just feels great! You don’t have to go far in order to reap these rewards. Nature can be a class plant or pet, photos, the clouds in the sky, students’ lunches, nature sounds, descriptive stories, the schoolyard or a local green space. Wherever you are, nature is. Whatever your school situation, you can bring your students to nature or bring nature to your students. Find simple ways for you and your students to connect to nature with your senses every day.

**Socialize in Nature**

Social relationships can be essential to how we experience nature. By spending time with others in nature, we strengthen our sense of belonging in nature and in our community. Sense of belonging is crucial to our holistic well-being and to student development. Show your students that they belong in nature by taking your classes outside regularly. Plan opportunities for youth to play and explore nature together, as well as to spend time outdoors with adult mentors and Elders.
Seek Out Cultural Teachings

Culture evolved around nature. We can learn many important lessons about ourselves, nature and environmentalism through cultural teachings. Look to mentors and Elders in your community who can share these teachings with your classes. Seek out opportunities for learning about and with local Indigenous cultures. By helping students develop a deeper connection with culture—their own and others—we can help students strengthen their feelings of belonging, identity and sense of place.

Developing a sense of belonging in nature with your classes enables your students to connect to nature and seek nature for their well-being. This inspires students to live in reciprocity within the web of life—to be grateful for the gifts that nature provides us and to give back to nature through environmental action. All of nature’s gifts for our well-being can be unlocked by one simple act: getting outside, by yourself and with your students, for yourself and for your students.
References


Jaclyn Angotti is the education director of CPAWS Southern Alberta. Jaclyn has over 10 years of experience leading science and environmental education programs throughout Alberta. She has a bachelor of science in biology from the University of Alberta and a master of education from the University of Calgary. Jaclyn’s interdisciplinary master of education included courses on Education for the Environment, Poo’mikapii: Niitsitapii Ways of Wellness and Educational Research. This article summarizes the findings of Jaclyn’s final research project. The Canadian Parks and Wilderness Society (CPAWS) is Canada’s voice for wilderness. We are a nonprofit environmental organization working to protect half of Canada’s public land and water. CPAWS Southern Alberta is also a leader in environmental education, offering award-winning classroom and outdoor experiences to help build the next generation of environmental stewards.
Wisdom from the Wilderness
Monique Waters and Jonah Waters

The outdoors, particularly the forest, has always provided our family with a special place for connection. As educators, we continue to explore ways to provide students with outdoor learning opportunities. This has led to the development of the Wilderness Centre on our family’s 70 acres of land. Through support and donations from friends, family and community members, we have built three yurts and have designed an outdoor kitchen, a mud kitchen, a pop-up playground, gardens, an orchard and an outdoor classroom. We would like to share some of the ways we have planned learning experiences.

Making cider has been a popular activity at Wilderness School that allows for numerous cross-curricular connections. We begin by requesting apples from community members. We are willing to pick them if necessary. Many families with apple trees do not pick or use their apples and are happy to allow us take them off their hands. Prior to beginning the cider stations, an age-appropriate book about the life cycle of apple trees is read and discussed. How Do Apples Grow, by Betsy Maestro (2000), is a popular choice. Below are the four centres:

1. Cutting the apples. Young children use an apple corer, and older children use knives. All apple pieces are placed in large bowls to be crushed at the next centre. We discuss fractions at this centre: whole, half and quarter.

2. Crushing the apples. Using large pieces of sanitized wood, students bang and crush the sliced apples in a bucket. We often sing while we work or share stories of other cultures that sing songs or chants while working. We discuss why we need to crush the apples to maximize the surface area to press out the juice.

3. Pressing the apples. Using a DIY pattern found on the internet, a friend built a press that we use with a hydraulic jack. The resulting apple mash is poured into a bucket with holes drilled along the sides and lined with fabric lining. The bucket sits on a cookie sheet with another bucket or bowl placed under the press to collect the juice.

4. Journal activity. Depending on the age group, this can be a sequencing activity or reflective writing activity.

5. Canning. Generally, this is completed by adults.
Cutting the apples

Centre the slicer on the apple. Hold onto both handles and press down firmly. Place all pieces of the apples in a bowl.

Crushing the apples

Place the apples in a bucket and smash with a long piece of wood.

Keep smashing until apples are this consistency.

Pressing the apples

Pour the apple mash into the press bucket. Cover with cloth and then the wooden lid. Place the car jack on top of the wooden lid and line it up with the metal circle under the top beam.

Canning the juice

Place the juice in a pot and heat for one minute at 160°F.

Begin to pump the jack. Be sure the second bucket is under the press to collect the juice.

Place a funnel lined with cheese cloth in a quart jar. Slowly pour the juice in the jar. Top with lid and ring. Place in canner to heat for 5 minutes.
Working in small groups, every student has the opportunity to participate in each step of the process. Once our cider making is complete and our workspaces cleaned up, we conclude our apple adventure with a gratitude circle. Each participant is encouraged to share what they are grateful for, and we thank anyone who has contributed to our cider making journey.

Another applicable activity for students of all ages is to have them find a sit spot. This sit spot is a place where they are comfortable to sit and observe themselves and their position in the world around them. Sit spots can be chosen by scenery, something interesting seen on the ground or in the area, and sometimes even just a feeling that this is the spot for you. I’ve included a photo of mine below.

Sit spots can start out as a perspective activity to introduce the idea of seeing the world from different viewpoints. To begin this activity, students find a spot that they are comfortable sitting in, then they try to sit there for about five minutes. They are encouraged to observe two sounds and two things that they saw, as well as how they felt when they first sat down and how they felt when they stood up to return to the group. The next step is to form a sharing circle where everyone will have a turn to share their observations. Of course, students will have the option to pass if they are uncomfortable with sharing. After every student has had a chance to speak, a second pass can be made, this time focusing on sharing a perspective that was shared by a classmate, which either resonated with them or which they realized was present during their time in their sit spot and not reflected on or mentioned. The hope is that this will encourage students to see the variety and value of different perspectives.

Now that the concept of sit spots has been introduced, this activity can be done in the future with or without discussion as a wellness break. While doing other outdoor activities, a student’s sit spot can serve as a place to go to when they need to cool down or are having difficulty self-regulating. I would suggest keeping this as an option that students can take at any time but request that it is not abused, similar to bathroom breaks.

If this sit spot activity is done periodically throughout a school year, it can also be used to encourage students to observe the changes in animal and plant activity as the seasons change. This will not be directly applicable to every grade’s curriculum; however, all students can benefit from this level of awareness of the world around them. Further, for some grade levels, this activity can directly apply to many science curriculum components.

Another extension that we endeavour to experience at some point is encouraging students to share by showing each other their spots and switching places for a day. With this activity students would be encouraged to share something that they noticed, similar to the first sit spot activity. The hope with this is to further strengthen students’ abilities to see the world from other people’s perspectives. This helps not only with encouraging an inclusive classroom but also with communication and language development.

The sit spots can also be used for a variety of different topics and units by setting up an activity whereby students are asked to wonder what their scene might look like if they were planning a specific project. For example, if the class is currently studying types of structures, they can be asked what someone who wants to build a shelter might observe. This can be bridged into an activity whereby they attempt to build a structure with materials from the area if it will not cause damage to the environment. Another example for a different
topic could be what a songwriter might think about while they sit in their spot. Following this activity, students could be encouraged to write a short poem.

A final application of the sit spot is the possibility of having students imagine the area from an animal’s perspective; for instance, what an ant might see if they were sitting there. This perspective could be used as a writing prompt for a creative writing piece to diversify stories while still having a common prompt.

In all that we do, no matter the activity, we aim to incorporate the importance of gratitude. This can involve a sharing circle where found items from the forest are put in the centre as a way of giving back to the wilderness. Allowing students to choose a rock or a stick to keep to remember their day while sharing what they are thankful for often resonates with children. Songs and chants are another way participants can express their feeling of gratitude. Being mindful to thank volunteers, teachers, bus drivers and anyone contributing to the success of our adventures is important for students to remember. Without the many contributions of resources, time and energy from family, friends and community members, our Wilderness Centre would not be possible. We are forever grateful!

Favourite Resources


Monique Waters is a teacher and administrator in St Albert. She is passionate about the outdoors and land-based learning. Her family-owned Wilderness Centre has been hosting students and adults for nearly 15 years. Jonah Waters will be finishing his secondary education degree in spring 2022. Working as an educational assistant and student teacher over the past four years, he has shared his love of nature at every opportunity.
Breaking Down Classroom Walls Through Immersive Virtual Events

Jesse Hildebrand

Think about the greatest experience you personally had as a student. Was it an exam, a paper or a textbook reading? Likely not. Instead, it’s the unique opportunities that really serve to inspire and captivate people, and whether it was a particularly dedicated teacher with a fun experiment, a field trip that amazed you or the chance to hear from an expert, your experience almost certainly inspires how you go about working with students today. At Exploring by the Seat of Your Pants (EBTSOYP),1 we try to foster those sorts of amazing experiences every single day to get students not just keen to learn more, but to make a positive difference in the world. We do that by coordinating 40 plus monthly live, free, interactive broadcasts with some of the world’s top scientists and explorers.

Astronauts, cave divers, conservationists and so many more—we try to find the coolest people doing the most amazing work worldwide and bring them straight into your classroom. Our programs are 45-minutes long and fit nicely within a classroom period, leaving ample time for discussion. Every session we do is recorded indefinitely, so your class can tune in anytime they’d like, not just to upcoming broadcasts, but to over 2,000 past programs.2 We partner with organizations like the Toucan Rescue Ranch, Parks Canada, the Toronto Zoo and more to host virtual field trips—not just pictures and videos of expeditions, but live animals on camera with a chance to talk to keepers, experts and more. We also specialize in bringing classes live, epic experiences from the field. They may not remember the latest science class, but your students will definitely remember being up in the canopy live from Costa Rica, on the Ogooué River in Gabon with ichthyologist Joe Cutler, or live from the Pacific Ocean with rower Erden Eruç! Our students have been so inspired by some of the conservation programs we’ve run, that in the last two years they’ve raised over $10,000 in support of local groups in Argentina, Tanzania, Madagascar and more.

Outside of our programs we also coordinate activities and partnerships that get kids out, active
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Students listening intently to explorers through EBTSOYP

and involved with conservation. BackyardBio is a signature campaign of ours that last May had 300 plus teachers globally getting their kids outdoors in pursuit of local wildlife, sharing all they discovered on social media, the INaturalist app and with each other through direct international classroom connections! We always try to get as many resources and recommendations to keep enthusiasm high long after the program is done, and we’re on call daily to help find more ways of making the experience of EBTSOYP even richer for educators.

In short, we like to think we’ve got a pretty fun, engaging and nifty platform for showcasing the world and the cosmos for students in a way that really sticks, and we’d love to have you join in the experience with us! Do check out the site and Youtube channel, and feel free to reach out with more questions at ebtsoyp@gmail.com.

Notes

1. Exploring by the Seat (www.exploringbytheseat.com)
2. Youtube (www.youtube.com/c/Exploringbytheseatofyourpants/videos)

Jesse Hildebrand is the vice-president of education at Exploring by the Seat of Your Pants. He founded Canada’s Science Literacy Week national science festival in 2014, is a former producer of the Story Collider and currently serves as the Canadian coordinator for the Nature for All global nature network.
Outdoor Circle Routines
Paula Huddy-Zubkowksi

Oki. This means hello in Blackfoot. Learning traditional languages of Indigenous Peoples is one Call to Action of the Truth and Reconciliation Commission of Canada (TRC). I am dedicated to finding ways to honour and understand my own community on Treaty 7 land. I recognize I am a settler, and everything I have learned has been through joining Indigenous community events and talking with Elders and Knowledge Keepers. Information in this post has been read and approved by a Blackfoot Elder. I ask anyone who reads this article to consider reading the TRC to find ways you, too, could acknowledge the land and learn from the Indigenous communities where you live.

A sharing circle is a place and space where your class will come together to reflect and connect to the land. Circles allow for equity when sharing stories and reflections. Everyone has an equal opportunity to speak and listen to one another. Through learning alongside Indigenous Peoples, I have now embedded this important circle teaching into my practice.

Circles have deep significance to the cycles of Mother Earth: seasons, four directions, months, the medicine wheel, sacred medicines, life cycles and water cycles. Everything around us is part of a circle and connects us to our natural world. By gathering with students in a sharing circle, we can become one with each other to explore, reflect and have a place to have meaningful conversations.

Connecting and joining a circle is just one routine that can help guide your outdoor learning experiences with your students.
**iiststii’ik** in Blackfoot is a word meaning listen. I have been told many times when working with Indigenous Knowledge Keepers that there is a reason we have two ears and one mouth, and we need to be mindful of this. Sitting with my students in a circle is sometimes a place for us to hold our words and to listen with our hearts.

**A School Example**

After joining Indigenous Elders and Knowledge Keepers for a year-long learning journey about the history and culture of Treaty 7, my class designed a natural space to acknowledge our journey. Through a TD Friends of the Environment Foundation grant, we managed to acquire giant stones that were formed into a circle. With conversations in our community and in consideration of our shared learning journey, we called them our story stones. This circle installation offers an opportunity for legacy learning, where more classes can come together year after year in the spirit of family and togetherness.

Our school came together in a circle to listen to a Knowledge Keeper, Hal Eagle Tail from Tsuut’ina Nation, to drum and bless the story stones. This was a beautiful way to connect our school community to traditional teachings of our natural world. This gathering, which led to a community feast and monthly teachings, became a memorable learning experience for our students. Outdoor experiences can become a pathway to learning alongside Indigenous Peoples.

*Students used outdoor loose parts like pine cones to measure where the story stones should be placed.*

*Our 1,500-pound stones arrived for us to begin to use in our new natural space called the story stones.*
Read *The Sharing Circle* (2016) picture book to help guide you through learning more about the importance of circles. This story was written by Theresa “Corky” Larsen-Jonasson, an Indigenous author.

**Reference**


*Paula Huddy-Zubkowski is an educator, avid traveller and lover of nature. Paula has spent the last 15 years travelling this amazing planet both as an adventurer and a teacher who visits the world with her class using technology. She has brought her passion for exploring the earth and connecting with nature to her students, motivating them to be environmental stewards and global citizens who create action plans to make the earth a better and sustainable place to live. As a National Geographic Grosvenor Fellow and Canadian Geographic Alberta rep, Paula has taken advantage of social media to help promote her message and reach out to a world of experts and environmental enthusiasts with her students. Living near the Rocky Mountains in Calgary, she is passionate about connecting with nature and getting regular doses of Vitamin N (nature). She can be found regularly exploring local trails and participating in outdoor activities with her husband and three young children.*
We are beginning to return to experiential learning outside the classroom in its many forms. I would like to propose a simple debriefing exercise applicable to multiday trips whether in the outdoors or travelling to Paris with students.

I have been running month-long field schools with university students to Peru and other parts of Latin America for over 20 years. It is a part of my job that I cherish the most because of the growth I get to witness. However, I struggle to find the best way to demonstrate student growth in empirical terms and in ways that administrators can quickly digest. I encountered a particularly simple and effective method that I have used many times. As far as I know there is no particular name or label attached to it, so please use it and modify as you see fit.

The general context is that you are operating a student excursion, which involves a significant time away from home. Whether it is a 10-day sailing trip to the west coast or a two-week museum tour in Italy, it does not matter. What matters is that students will be taken out of their normal everyday setting for a decent amount of time.

It involves four simple questions in a pre- and postformat. A couple of days before we leave on our excursion, I have students answer the following questions:

- What 10 words describe you right now?
- What are the world’s two biggest problems?
- What are you most looking forward to in this experience?
- What stresses you the most about this experience?
I keep each student’s responses with me. On the last day of our excursion, I have them answer the same questions with the last two reframed in a post-trip format. Then I give them their pretrip responses, and we have a great conversation. The value of this exercise is not only as a debriefing for the students but also as a way to understand the dynamics of the experience for the faculty and the institution.

The results below are attached to a 2017 month-long field school in Peru involving a group of 17 students. Only a summary of responses is presented.

<table>
<thead>
<tr>
<th>Who I am responses pre- and postexperience (only including items that appeared specifically in pretrip or post-trip, that is, not items that appeared in both)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pretrip survey</strong></td>
</tr>
<tr>
<td>Honest (4), hard worker, shy (3) determined, energetic, goofy, Type A (2)</td>
</tr>
<tr>
<td>Artistic, authentic, awkward, busy, cat lover, cranky, dedicated, don’t like change, emotional, enthusiastic, excited, free thinker, genuine, graduate, homebody, inexperienced, informed, intuitive, judgmental, kind, love my sleep, love nature, nerd, multitasker, nervous, open, organized, passionate, perfectionist, realist, responsible, searching, talkative, team player, trusting, unstable, wallflower</td>
</tr>
</tbody>
</table>

Many of us have argued that the greatest learning arising from student group travel is attached to the self. Students (and faculty) learn more about themselves than anything else.

<table>
<thead>
<tr>
<th>What are two of the world’s biggest problems?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items that only appeared on the pretrip</strong></td>
</tr>
<tr>
<td>Economic downturn (5), people disconnected from their world (2), judgment (2), consumerism, corruption, drought, health issues, human rights infractions, nationalistic pride, political disobedience, power of dollar vote</td>
</tr>
</tbody>
</table>

Responses suggest a shift toward a more global perspective and a focus on our particular place, being Peru. It is important to understand student fears and aspirations surrounding a significant excursion. Fears are especially important because they are likely to surface at some point in the trip.
What aspect of the field school are you most looking forward to? [in rank order of appearance]

<table>
<thead>
<tr>
<th>Pretrip expectation</th>
<th>Post-trip reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All things new—the experience</td>
<td>1. Culture and local family contact</td>
</tr>
<tr>
<td>2. Culture and local contact</td>
<td>2. Challenge/personal (general activity)</td>
</tr>
<tr>
<td>4. Activities (hike/canoe) and challenge</td>
<td>4. Personal reflection</td>
</tr>
<tr>
<td>5. Learning about myself</td>
<td>5. Freedom of travel</td>
</tr>
<tr>
<td>6. Re-create myself</td>
<td>6. Just the experience</td>
</tr>
<tr>
<td>7. The travel experience</td>
<td>7. Learning something new</td>
</tr>
</tbody>
</table>

What part of the field school makes you feel stressed? [in rank order of appearance]

<table>
<thead>
<tr>
<th>Pretrip expectation</th>
<th>Post-trip reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Group living</td>
<td>1. Group living</td>
</tr>
<tr>
<td>2. Lack of experience</td>
<td>2. Physical challenge</td>
</tr>
<tr>
<td>3. Lack of ability</td>
<td>3. Language and ability</td>
</tr>
<tr>
<td>5. Self-image/personal issues</td>
<td>5. Pace of field school</td>
</tr>
<tr>
<td>6. Detached from society</td>
<td>6. Assignments</td>
</tr>
<tr>
<td>7. Money</td>
<td>7. Money</td>
</tr>
<tr>
<td>8. School work</td>
<td></td>
</tr>
</tbody>
</table>

The entire group dynamic is a powerful concern for students embarking on an extended trip of any sort. It has the power to make or break an individual and/or group experience. An enormous amount of analysis can be woven into all these responses. Each table presents great opportunities for discussion.

The dynamic of student growth is clearly evident to those of us who run such programs. In its simplest form I have observed that in the first couple of days of any trip, I am likely the most important person in my students’ lives. If all goes well, I am one of the least important people in their lives on our last days.

Joe Pavelka is a professor of ecotourism and outdoor leadership at Mount Royal University in Calgary, Alberta. He has led numerous month-long field schools to Latin America as well as outdoor expeditions with students throughout Canada’s west and north.
Sometimes the road less travelled sounds like a great idea, but when the reality of the journey sets in, that same road can look daunting or impossible to navigate. To say these past few years have been a difficult road for most educators and students would be a huge understatement. A year of so many outside factors influencing what the classroom can or should look like has really tested and worn down many incredible schools and programs. We all want what is best for kids, and many want to go that extra mile to ensure their success. I really hope when we look back on these years, we don’t see that we went through all of this just to end up in the same spot as before, with no knowledge gained or a different outlook on what is important. For those educators and students who were able to enjoy the outdoors years ago as a place of solitude, wisdom, serenity, joy or adventure, I truly hope your journey these past few years has been afforded that guidance of mother nature as well.

Outdoor education has always been more than just a class for so many people, young and old. I personally don’t know where I would be if I had not been able to be outside with my students almost daily during these past few years. The connection and sense of community that are provided from an experiential or outdoor education class is something you will just not...
find in any other subject. I have spent many years involved with sports teams and clubs, but they still don’t bring the same sense of belonging as a group of youth working together outdoors, fully dependent on each other. It really is something you need to experience to understand.

In the past couple years of uncertainty, I know as educators you have done everything you can to create adventures and memorable events for your students. It is what teachers do, even against the odds. Our desire to push kids beyond their comfort zones and provide meaningful opportunities stems from our deeper understanding of the importance of having a community.

My focus this entire school year has been to re-establish those connections our students had with the environment and our outdoor spaces from years ago. I have no desire to go back to where we came from before this pandemic, as I do strongly feel our world was forced to slow down and enjoy life again. As tough as this has all been, there were many silver linings. If the theme of these pandemic years was slowing down and taking a little more time for the little things life had to offer, then this year we needed to shift our focus and grow. I wanted to remind myself daily to slow down with my students but also rebuild our community and connection with one another, taking the time to do it right and not rush the results.

Outdoor education allows us to pause and reconnect on a daily basis. Every day this school year, we have tried to re-establish old routines while showing compassion for the present. This is all part of building a great community around us. Our students and teachers are creating a whole new way to learn and be. It is actually incredible when you stop to think about what they have been through: setting up online classes, learning remotely, becoming independent and increasing work motivation on their own without all the usual surrounding support. I have spent even more time on team building, trust and icebreaking games this year to refocus our energy and acknowledge all that the students have been through in the past few years. Learning to trust and communicate in person once again is not something you can sprint through or take for granted; you need to be methodical and intentional in your practice, even if it’s a fun icebreaking game.

I encourage you to take a moment and reflect. What did you do this year to slow down and allow your students to connect with their peers, their school or themselves? Did your students feel more a part of a community this year than the past? Did this pandemic force you to go outside for safety and spark a change for the better?

I was fortunate enough to take students on several day trips last year during the pandemic. What was so great about those day trips was the fact that the students really appreciated being out of the school doing something “normal.” At the start of the 2021 school year, I could already sense the buzz from the students at the potential for opportunities that this year may hold. Trips or no trips, I knew the students were in a much better place mentally than the previous year—they didn’t want to be behind a computer screen anymore or stuck in one cohort classroom again. Teachers were engaged in a dance between enthusiasm for the new year and lingering exhaustion from the previous expedition known as pandemic teaching of years past. Mother nature quickly became a recharging ground for many people in our world and perhaps the strongest teacher of all. Go outside. Enjoy each day for what it is worth from sunrise to sunset. Little things each day make us feel accomplished and valued.

This year I feel lucky that I was able to play games and see joy in kids’ eyes again. They were eager to learn and be part of a class that didn’t have four walls. It was exciting watching kids help each other with bike repairs, setting up tarps, lighting camp stoves and, of course, how can I ever forget the epic cross-country ski wipeouts that occurred so often? Most important, we were outside almost every day making kids feel that much safer.

The ability to take our time and go slowly through the year is something I really appreciate about outdoor education. It is nice to spend time on activities the kids are enjoying and slowly mastering, as opposed to rushing off to the next topic. An even bigger reward is when the kids are enthusiastically engaged in the process of learning and not on an outcome or target. For example, students go from learning the basics of bike maintenance and repairs to confidently riding pathways, roads or hills, to building jumps or ramps! They get to enjoy the process of things. Connecting
with the topics and finding ways to support their community are opportunities that I truly value with students. Having the flexibility to connect, support the community and slow down are aspects purposely built into the program.

Students join our classes, clubs and communities to be a part of something. We all want that. There is something extremely powerful about a group of individuals who are all on the same page working toward a common goal. What is even more powerful is the fact that the students in outdoor groups are learning new skills and values while coming together to make connections. In our weekly or daily classes and meetings, our students are constantly shown what a safe environment our spaces can be. The levels at which we are able to show students and leaders a sense of belonging over common goals are outstanding. When students start buying into a program or believing in one another, it will be they who organize, clean and maintain all the gear or equipment, for example. The students will be investing in not only their own years of adventure, but they will show investment to help future students follow in their footsteps. I call it the ecosystem effect, when students, parents, school community, alumni and future students all work together in an endless cycle. As a junior high teacher, being able to share a sense of community with 12- to 15-year-olds is pretty special. It’s a chance to show youth they can be part of a lifetime of change. When former students and alumni volunteer to help lead other students or show them skills they had learned, that, to me, is what teaching is all about. This year, more than ever, those alumni wanted to come back to help show the power of our community. They wanted to make sure the students of today had a part of something they remember experiencing and are still proud of.
The outdoor education world makes you spend more time listening, not just to nature, but to those around you and with you on the adventure. With the year we have all had, I would hope one of the biggest skills we can learn or take away is to listen to others. I hope this year you were also able to listen to yourself and take time for your own connections. It is important to lead yourself on your own journey before you can lead others on theirs.

We all have the ability to get through these unknown years in a safe and caring way. Individually and together as a community, we can conquer this with our strong sense of belonging, our knowledge and our ability to overcome obstacles daily. Just like those moments when our adventures become challenging, we all need to look within ourselves, find patience, embrace our community, and absolutely support and care for one another with compassion. I hope this school year has brought many great journeys that have left you and your students in amazement and wonder. Remember to adventure one step at a time and not forget to look up from time to time to enjoy what life has to offer.

If you are interested in learning more about outdoor education, starting a class or building a program at your school, please reach out to the GEOEC team!

Court Rustemeyer is the president of the Global, Environmental & Outdoor Education Council.
Interviews with Alberta Educators

An Interview with Amy Sagan and Emily Parkin

Alison Katzko

This fall I had a chance to learn more about Amy Sagan and Emily Parkin, both recognized for their active involvement in supporting outdoor education. Amy and Emily teach at Nakoda Elementary School, which is part of the Stoney Education Authority in Mînî Thni.

Amy Sagan teaches Grade 4 at Nakoda Elementary School. She also helped start Project NOWE (Nakoda Outdoor Wilderness Education) in 2012. Project NOWE was an experiential, outdoor education program at Morley Community School.1 Her teaching work has brought her all over the world, including New Zealand (where she completed her teaching degree and taught for two years), Japan and Sri Lanka. Amy is passionate about the role the outdoors plays in education, and she is well rounded with her climbing, canoeing, skiing, snowboarding and hiking skills.

Emily Parkin grew up in Owen Sound, Ontario. Her education career started in England and has brought her to China, New York State and, most recently, Canmore, Alberta, in 2012. In Emily’s spare time, she enjoys mountain biking, hiking and cross-country skiing. She was the recipient of GEOEC’s 2020 Award of Merit in recognition of exemplary teaching, leadership and service. She inspires youth daily to advocate for nature and their world. Emily also actively collaborates and supports educators looking to bring students outside through workshops and shared outdoor partnerships.
Amy Sagan

I’m Amy Sagan, a Grade 4 teacher at Nakoda Elementary. Currently, we are incorporating a half-day (every afternoon), land-based learning approach to our classes. I have always been passionate about land-based teaching approaches, especially in Mînî Thnî, because of the rich content and history of them in First Nation culture. I was first introduced to the concept when teaching in New Zealand, where outdoor learning is greatly emphasized in general.

Building Student Well-Being and Relationships Through Outdoor Learning

Many years ago, while teaching in Mînî Thnî, I helped facilitate an outdoor leadership program for high school students. We had multiday canoe and hiking trips with Outward Bound, as well as team building and leadership activities through the Banff Centre. Students also spent the year learning how to kayak, ski, and rock and ice climb. Personally, seeing the impact of this program on student well-being and relationship building has been one of my greatest joys as an educator.

Value of Land-Based Learning

COVID-19 led to our school being closed the majority of last year, so when we reopened this fall, we were adamant about starting a land-based program for students. We began with simple hikes using our senses and having individual quiet outdoor space to journal. From there we created our own space by building shelters in the woods by the school and practising wilderness first aid, talking about plant medicines, learning how to cook using outdoor gas stoves, making spider dogs over the fire for Halloween and so on.

We will be building a firepit and collaborating with our school nutrition team to make traditional soups and various foods over the fire using a cast iron cauldron, so students can learn how their ancestors used to cook and be part of the whole process. We’re hoping to expand the program to include a hunt camp and track for cross-country skiing among other things.

Advice for Teachers Starting Out

I would advise teachers to start small and slowly build their program to what works best for their students and themselves. A giant obstacle for us has always been having warm winter gear for students, so this summer was the start of asking for donations of winter gloves, boots, hats, ski pants and so on before families in the Bow Valley purchased new gear for their own kids. Luckily, we live in an outdoor-driven community and have gained an amazing supply of outdoor gear for students to stay warm and dry all afternoon in chilly temperatures. Living in a cold climate like ours makes having the proper gear the most essential part of running a program like this.
Emily Parkin

I teach Grade 4 on Stoney Nakoda Nation, at Nakoda Elementary School. Over the past seven years, I've also worked with middle and high school students at Morley Community School.

Her Inspiration as a Teacher

I am passionate about experiential education. With the land and river surrounding our school yard, and the culture and traditions of Stoney Nakoda, I've always been inspired to take students out on the land and out of the classroom when it’s possible. Seven years of field trips, overnight excursions and land-based learning experiences have always provided a unique opportunity to connect with students, Elders and community members, which is not possible in a traditional classroom setting.

Two Wheel View Bike Program

In 2013, I was approached by Two Wheel View (TWV)² to start a bike mechanics program at Morley Community School (MCS). Personally, I didn’t know much about bike mechanics other than that I enjoyed mountain biking. I quickly realized that despite my limited mechanical knowledge, this aligned well with my teaching philosophy rooted in experiential education. Since that fateful meeting with TWV, countless Grade 9 students have participated in the Earn-A-Bike and Full Cycle programs; we’ve cycled thousands of kilometres during self-supported trips throughout Quebec and Alberta, including from Lake Louise back to MCS and Calgary to Banff. In 2019, Pinkbike³ connected with us and donated $20,000 worth of mountain bikes, helmets and equipment to MCS. From there, our administration had a bicycle shop built and purchased a trailer to transport bikes on field trips and a new school van to haul it all. We’ve partnered with Mount Royal University students to continue to expand our learning. I am proud that this program has grown organically into something much bigger than we ever imagined it could be.

Students experiment with different ways to cook bannock over the fire.

Students work together to problem solve and bring log seats to our outdoor classroom.
How to Begin

I recently discussed this during a series through GEOEC called In the Round. I summarized my equipment and resource journey in three parts: Network, Work with What You Have and ASK! Educators often need to get creative due to budget constraints. I’ve found that asking for support within our current networks is often the best way to procure resources.

If you’re new to taking students outside your classroom, start simple—just take your planned lesson outdoors. The creativity, connections and experiences will all happen from there. Just get started.

One Key Resource to Take When Heading Off to Teach in Another Country

I did this in 2016; I went to China to teach. I always bring a good hiking backpack. Over the years, I’ve learned from mentors and other outdoor educators how to pack a backpack for day trips. I always feel like we can take on anything with a backpack full of resources and a first aid kit!

Notes

1. Project NOWE
   http://project-nowe.blogspot.com/
2. Two Wheel View
   www.twowheelview.org/
3. Pinkbike Share the Ride Program

GEOEC would like to thank Amy Sagan and Emily Parkin for their time sharing some information with our readers. It is evident that both Amy and Emily share a passion for establishing connections between students and the outdoors. Their own enthusiasm for outdoor spaces and adventures is contagious. They bring their zeal not only to their student community but also to professional development workshops where they share information, experiences and great examples of learning and discovery with other educators.
I have heard that you are an inspiring woman, teacher and mother. Can you tell us a little about yourself and where you are located?

As a kid, I loved spending time gardening with my mom. I loved the magic of plants and, of course, the delicious harvests. I have always enjoyed being outside. As my kids get older, the importance of taking care of the world around us is becoming more evident to me. We are inundated with doom and gloom from all angles, but I believe the solutions are here, and we just need to work together to achieve them.

I grew up on a farm near Camrose, Alberta, and attended school both at Round Hill School, in Round Hill, and in Camrose. I received a bachelor of science from Augustana, in Camrose, and a bachelor of education at the University of Alberta. My first teaching job took me to Eskilstuna, Sweden, followed by Bashaw and Lloydminster, in Alberta, before returning to Camrose.

I am a mother of four children (ages 9, 7, 6 and 4), and I work as a substitute teacher. I also have a small online clothing business called Dragonflies and Stars, where I sew environmentally conscious clothing. I am currently taking a permaculture design course through Verge Permaculture. My husband, Mike, and I are transforming our seven acres into a thriving ecosystem for plants and animals, using permaculture design principles. I think about gardening, trees, annuals, perennials, water capture, food forests and regenerative agriculture in some capacity for most of my waking hours!

I am passionate about learning from nature and the outdoors. I recently had a conversation about what we can really do to make a difference in the world. I know that what I do is not going to change the whole world, but I do feel that I can wake up every morning and try. For me, when I take care of the people and the world around me, that is making a difference.

Can you share with our readers what permaculture is and how it is influencing your approach?

Permaculture is a lens through which we can look to solve problems by observing and mimicking the natural world. Through observation we can see the systems nature uses to thrive, and by replicating these relationships we can create diverse ecosystems, which then provide abundance for us. I believe that often nature is trying to tell us something, and we just need to take the time to listen.

When students and communities have access, experience and control over their food supply, it is incredibly valuable, providing immense opportunity and stability for the future. Access to this affordable, high quality, nutrient dense and delicious food will have positive health effects that will extend for many generations. The skills and knowledge learned may not be implemented daily or even for years, but when you plant a seed, you never truly know how fruitful it can become.
Some interesting projects are developing with your school and community. Can you tell us more about these projects?

Right now, I am most excited about a local nonprofit, the Round Hill Renaissance Agriculture Foundation (RHRAF). From the microbes in the soil to the intergenerational relationships we develop with each other, our vision is to build our community as a highly productive, inclusive and diverse ecosystem, making Round Hill a destination school and community. Picture no-till gardens, integrated with people of all ages, insects, animals and food forests all designed using processes that capture water, build soil, make compost and optimize important, antifragile cycles, in a way from which people can learn and be fed. Our goals are to create nutrient dense food using regenerative systems and teach others how to do the same.

Round Hill has always been an amazing community. People come together when there is a need, no matter the size, working together and pulling from their strengths. RHRAF is a wonderful example of this. RHRAF is an innovative volunteer group that is dedicated to providing educational opportunities within agriculture, permaculture and food security, while connecting the community through food and knowledge. RHRAF is working closely alongside Round Hill School to provide hands-on learning for the students in a permaculture context. The Foundation is in its second year of providing learning opportunities through gardening, food forests and shelterbelt planting (that someday will support bee and bird ecosystems). Students have been involved in planting the RHRAF garden in the spring, maintaining the garden (with their families) throughout the summer and experiencing the abundance during a harvest day in the fall when they were able to take fresh vegetables home to eat. Currently, we are implementing a schoolwide hot lunch program with locally sourced food from farms, gardens, artisans and bakers as partners. These foods allow students to gain insight into food ethics and where and how food is produced. These foods also create a familiarity with cultural foods that have a rich, traditional history in our area and around the world.

Students were able to cherish the fruits of their labour by taking a bag of fresh fruits and vegetables home. They assured us that they would be cooking supper that night with the delicious harvest they had collected.
We hope to have all students involved in each stage including planning, sourcing, growing, harvesting, preserving, preparing, serving, cleaning and, of course, eating these delicious foods! Appreciation for others, as well as for the living soil, air and water needed for growth is a natural progression when students are involved in all of these processes.

Your goals and dreams for projects sound amazing. Can you tell us more about the direction in which you plan to move?

We want to continue to enrich these experiences by linking agricultural learning directly to the curriculum, while including intergenerational connections with local experts to strengthen our community and the students’ feeling of importance and belonging. For example, students will be able to design the garden based on meal planning goals, calculating seed quantities, growing conditions and permaculture principles they learn from local experts. Throughout the winter, students will grow microgreens and vegetables in the school using a variety of growing techniques to help supplement their breakfast and lunch program. Healthy, locally sourced and prepared meals provided to students every day is important for their development. It is impossible to learn, listen and grow when you are hungry. We want to feed students with healthy, nutrient-dense food to give them the best possible chance to succeed. Then we want to give them the skills and tools so they can soar.

While we believe it is important for students to gain hands-on learning about their food, nutrition and diet, we would be negligent if we ignored Indigenous history, traditions and knowledge in this process. We know that Indigenous knowledge is incredibly valuable, especially with proper care of land, water and air; so we would like to infuse our teaching with this knowledge. We want to amplify Indigenous history, traditions and ways of knowing by hosting Indigenous Elders, Knowledge Keepers and mentors throughout the year. We are working toward creating a safe space for Indigenous voices to speak of local history and explore the long-term implications of these truths.

Some of the ideas we already have planned include facilitating a blanket exercise (blanket exercises are powerful lessons and crucial for understanding Indigenous history in Canada) and sharing stories. Storytelling, songs and music were, and continue to be, used to teach traditional knowledge by interconnecting one’s mind, body and soul. The privilege of listening to these stories allows students to make personal connections to this knowledge in a powerful way. We would like to lead nature foraging walks. If students are able to witness the abundance around us, they will be able to show a greater appreciation and respect for the air, water and land.

Through these experiences the students will reflect on how each interaction with an Elder or Knowledge Keeper affected their state of being. Students will be asked to be mindful of their learning throughout their planting, harvesting, preparing and consuming of food. Students will think critically about how they can improve their relationship with their environment and local community, and how to be active, authentic allies for Indigenous communities.

Your projects have a great deal of connection to gardening and the land. How do you feel students and people get a chance to experience more depth and meaning through these approaches or projects?

I am very passionate about mental health and supporting youth. Like so many age demographics in society right now, students are struggling. They are faced with insurmountable stress and despite the technology that is supposed to connect us, they feel alone. I hope that by developing these programs, we are giving students knowledge, connections and experiences that will be healing while providing skills and tools to make a positive impact on the world.

Through these projects, we also plan to provide opportunities for learning that encourage critical thinking when it comes to purchasing healthy food. Healthy food includes food with good nutrients and positive environmental impact. We want students to be literate and think critically about what we are eating and how that has an impact on them and the environment. We want to give students the skills to grow, source and prepare healthy food for themselves.

Documentation and journalling are a keystone to witnessing this growth and knowledge in students. We
look at their words and reflections, but the true measure of success is observing the students’ interactions with their natural environment. This past fall when students harvested the garden, they were so incredibly excited about it. We want to encourage and capitalize on that confidence and excitement. Knowledge provides freedom to know better, do better and be better.

Is there anything more you would like to share with our readers?

The possibilities for this project are endless, and I am grateful to have the opportunity to work alongside such passionate and talented community members as well as such supportive and forward-thinking administrators at Round Hill School. The success of these programs would not be possible without the support of Brian Horbay (principal), Keely Nelson (vice-principal), all of the staff at the Round Hill School or the RHRAF leadership of Nicola Irving and Kyle Nahiriak. I cannot wait to see where these programs will take us, but I have a feeling this won’t be the last time you hear about the little hamlet in central Alberta called Round Hill.

As Frances Hodgson Burnett says, “At first people refuse to believe that a strange new thing can be done, then they begin to hope it can be done, then they see it can be done, then it is done and all the world wonders why it was not done centuries ago.”

Can you recommend any books for our readers that have helped guide and inspire you?

I have been inspired by so many, I don’t know how I could ever narrow it down. Below are a few that come to mind:

• *Braiding Sweetgrass*, by Robin Wall Kimmerer, 2013.
• *Dirt to Soil: One Family’s Journey into Regenerative Agriculture*, by Gabe Brown, 2018.
• *We Are All Connected* series.

If you or someone you know is interested in partnering with one of our projects, or if you have any questions about the programs we are implementing, please do not hesitate to reach out to me at tarenholden@gmail.com.

Notes

1. Dragonflies and Stars
   www.dragonfliesandstars.ca
2. Verge Permaculture
   https://vergepermaculture.ca/
3. Round Hill Renaissance Agriculture Foundation
   www.rhraf.com

GEOEC would like to thank Taren Holden for taking the time to share information about her projects with our readers.
Take Me Outside: Running Across the Canadian Landscape That Shapes Us

Colin Harris, founder and executive director of the organization called Take Me Outside has written a book entitled Take Me Outside: Running Across the Canadian Landscape That Shapes Us (Rocky Mountain Books, 2021). This book is a detailed journey of one passionate educator’s cross-Canada run to inspire students and teachers to get outside and experience the benefits and beauty of nature. I found the book to be an enjoyable read that inspired me to get outside and at least go for a walk! Colin’s dedication and determination to accomplish his goal is an inspiration.

My Grade 5 students had an opportunity to interview Colin Harris regarding his book for a podcasting project. His stories from his book delighted the students. They particularly loved his adventure of running extra fast to get to a milkshake shop only to get there and realize it was open later than he thought. They laughed with him when he shared how this only turned out for the best as he got to have another one! Colin Harris’s book is filled with delightful mishaps, adventures and inspiration!

To learn more or to purchase the book, visit https://rmbooks.com/book/take-me-outside/.

Stories of the Aurora

This book explores the legends and facts of the aurora borealis (northern lights). Stories of the Aurora (Whitecap Books, 2016) happens to be one of my favourites of Joan Marie Galat’s Dot to Dot in the Sky series. In this book, we learn not only the science behind the auroras, but also a treasure trove of tales from around the world that try to explain these beautiful but mysterious lights. Colourful illustrations and photos create the perfect guide for young astronomers. Like the rest of the books in this series, Stories of the Aurora contains all the scientific facts a child should know about this beautiful phenomenon in the night sky. Beautifully illustrated by Lorna Bennet, the stories come alive. These stories are shared from traditional legends and myths from the Inuit, European (and even a story from the ancient Romans) and Mi’kmaq.

My students are always fascinated with the combination of traditional stories and modern science ideas shared.

To learn more or to purchase the book, visit www.joangalat.com/product/aurora/.
Hello! I am Paula Huddy-Zubkowskki, and I am your Alberta representative for Canadian Geographic Education. This is the educational committee of the Royal Canadian Geographical Society. The programs of Can Geo Education aim to strengthen geographic education in the classroom and increase public awareness of the importance of geographical literacy.

Can Geo Education offers free bilingual learning activities, professional development, contests and maps to all educators in Canada. Head to cangeoeducation.ca to access these free resources or sign up to become a member (for free) to stay up to date on the latest programs. If you need more support, don’t hesitate to reach out to our Canadian Geographic team.
GEOEC Sponsor Organizations

As any educator or outdoor explorer knows, having some amazing resources can help make your experience more meaningful and memorable! We have developed a list of helpful resources to support you in your journey. The following are recommended by readers or have directly supported GEOEC through workshop presentations, journal article submissions and resource sharing.

**RESOURCES:**

**CPAWS Southern Alberta**

CPAWS Southern Alberta provides fun nature experiences to meet your teaching goals virtually, in the schoolyard or in a local park. Teachers across Alberta can access our cross curricular Bring Nature Home activities to enjoy in your classroom or book up for an interactive, virtual experience. In the Calgary region, we offer loanable education kits and safe, in-person programming such as snowshoeing in a local park. Recently, we also expanded our classroom and hiking programs to the Pincher Creek region. Get in touch with us today at education@cpaws.org!

**CONTACT:**

Jaclyn Angotti (she/her/hers)
Education Director
CPAWS Southern Alberta
education@cpaws.org

**Rocky Mountain Adventure Medicine Inc.**

Rocky Mountain Adventure Medicine Inc. is a leader in wilderness and remote emergency response skills training. We offer Wilderness First Aid courses that meet OH&S provincial guidelines as well as CSA standards. We also offer courses in Swift Water Rescue; Ice Safety; Survival; Animal Aware. We work with educators, youth leaders, guides, SAR teams, Provincial and National Parks staff and have presented national and internationally at SAR conferences.

**CONTACT:**

Phone: 1-888-849-0933
E-mail: RMAM@adventuremed.ca
Website: www.adventuremed.ca.

**BirdSmart©**

BirdSmart© engages and inspires students to learn more about birds, conservation and climate change. It focuses on how we can protect the natural world through interactive digital webinars or in-person presentations and features a live bird of prey. Presentations are available for all grade levels and tailored to match topics in the school curriculum. During these presentations, your students will learn from a qualified biologist about wildlife biology and how humans are affecting the planet and what students can do to help. This program is operated by the Beaverhill Bird Observatory, Canada’s second oldest bird education and research station.

**CONTACT:**

Website www.beaverhillbirds.com
Email education@beaverhillbirds.com

**Alberta Tomorrow**

Alberta Tomorrow's mission is to deliver a platform that empowers youth to design and sustain a future for our shared ecosystem. Our FREE, ONLINE, interactive planning tool is designed for students, teachers and all Albertans interested in the future of our province.

- Exploring our impacts on the economy and environment,
- Discovering how we can learn from the past,
- Creating a sustainable land-use plan for our future,
- Exploring the impacts of Climate Change,
- Experiencing Alberta’s Ecoregions and resource use through our 360 Virtual Field Trips
- Providing school programs and the tools to help all Albertans understand the consequences of our actions both virtually and in-person.

**CONTACT:**

Website: https://albertatomorrow.ca/
Email: info@albertatomorrow.ca
Lesson Share

Five-Minute Field Trips: Volume 2
Communication, Teamwork and the Importance of Trust
Court Rustemeyer and Carissa Esau

Gotcha
Also called Splat, this game is a fun way to engage students. The it person points to a student in the circle, indicating for the students on either side to point at each other and shout, “Gotcha!”

Instructions
1. All students stand in a circle facing inward. One student stands in the middle of the circle; they are it.
2. The it person randomly points to another student in the circle and shouts, “Gotcha!” The student pointed to must duck. The students on either side of the one pointed to must point to each other and shout, “Gotcha!”
3. The last one to shout gotcha sits down. The student ducking stands back up.
4. If a student yells gotcha out of turn, they are out.
5. The game continues until two players are left. The final two students play rock-paper-scissors to determine the winner.

Variations
- Instead of sitting down when the students are last to point to the opposite student, they will switch with the it person in the middle of the circle.
- The student who is out (last to point to the opposite student) must perform a task to get back in the game. This could be reciting a fact from a class, doing a dance, telling an appropriate joke and so on.

Reflection
- What did you enjoy about this activity?
- How would you change this activity if you were the teacher?
All Aboard

Students work in teams to get all team members on an increasingly smaller section of tarp. The team to successfully get all team members on the smallest section of tarp wins the game.

Instructions
1. Put students into teams of five to six. Provide each team with a tarp.
2. All members of the team must stand on the tarp for 10 seconds. If successful, the team will fold the tarp in half and all team members must stand on the tarp again for another 10 seconds.
3. Once successful, the team will fold the tarp in half again and stand on the tarp for another 10 seconds.
4. Continue folding the tarp in half, with all team members on the tarp for 10 seconds. The team able to get all team members on the smallest tarp wins.

Variations
- For added challenge, reset the tarp (unfolded) every time a team member steps off of the tarp.
- Groups must work together without talking. Give the groups random 10-second intervals to talk.
- Blindfold all team members except for one leader per group.
- Have students move across a playing area while the entire team stays on the tarp.

Reflection
- What leadership styles were used?
- What was challenging about this activity?
- How would you change this activity if you were the teacher?
- How would you improve your teamwork if you did this activity again?
- Was it more challenging when you were not allowed to talk? Why?

Materials
- Tarps or fabric sheets x 1 per group

Time Allotted
- 20 minutes

Recommended Grade Levels
- 4–6 and 7–9

Skill Connections
- Communication
- Teamwork
- Problem solving
- Collaboration and cooperation
- Conflict management
- Creativity
- Direction

Materials
- Tarps or fabric sheets x 1 per group

Time Allotted
- 20 minutes

Recommended Grade Levels
- 4–6 and 7–9

Skill Connections
- Communication
- Teamwork
- Problem solving
- Collaboration and cooperation
- Conflict management
- Creativity
- Direction
Fire Tender

Students work with their team to quietly retrieve sticks from a fire tender. If they make a noise, they must replace their stick. The team with the most sticks wins the game.

Instructions
1. One student will be blindfolded and will sit in the centre, surrounded by sticks or other objects. They are the “fire tender.”
2. Divide the remaining students into two teams. Each team will take turns sending one member to quietly approach the student in the centre, retrieve a stick and carry it to safety (a designated area away from the centre).
3. If the student in the centre hears a noise, they will point in the direction of the noise. The student who is caught will replace the stick next to the fire tender and return to the safe zone.
4. Once all the sticks are picked, count the sticks that each team gathered. The team with the most sticks wins the game.

Variations
• Instead of sticks, use objects that make noise for an added challenge.

Reflection
• What technique did you use to make the least amount of noise possible?
• How might animals use this same idea in the wild?
• What was challenging about this activity?

Materials
• Sticks or other objects (enough for entire class)
• Blindfold

Time Allotted
• 15–20 minutes

Skill Connections
• Communication
• Teamwork
• Roles and responsibilities
• Problem solving
• Cooperation and collaboration
• Conflict management
• Direction

Recommended Grade Levels
• K–3 and 4–6

Illustrations by Siobhán Barry. Siobhán is an illustrator and graphic designer who uses artwork to help explain complicated ideas and feelings. To get in touch or check out her work visit, sbarryportfolio.tumblr.com or @shivrelle on Instagram.
Global, Environmental & Outdoor Education Council

Mission Statement
To promote involvement in quality global, environmental and outdoor education

Objectives
• To provide a vehicle for Alberta teachers for professional development and communication in global, environmental and outdoor education
• To study and make professional recommendations about global, environmental and outdoor education issues
• To network with other provincial organizations that have similar concerns

Membership
• Regular member—Active and Associate members of the Alberta Teachers’ Association, as specified in ATA bylaws, are entitled to full privileges of council membership including the rights to vote and to hold office.
• Student member—Student members of the ATA are entitled to all benefits and services of council membership except the right to hold office.
• GEOEC members may also choose to belong to the Canadian Network for Environmental Education and Communication (EECOM) for an additional fee.
• ATA members may sign up for a GEOEC membership through the ATA website as their choice of one free specialist council membership included in the ATA annual fee.
• ATA members and subscribers may also sign up for a GEOEC membership and pay a fee determined by the GEOEC executive. From time to time the executive may decrease the fee to provide incentives for membership recruitment.

Subscribers
• Persons who are not ATA members as specified by ATA bylaws receive all the benefits and services of council membership except the rights to vote and hold office. Subscribers do have the right to serve as community liaisons on the council executive.

Publications
• The GEOEC recognizes the wide range of interests among members and strives to foster the exchange of ideas and provide information and articles relating to the various components of the elementary and secondary curricula through the publication of Connections.
• The GEOEC maintains a website in order to publish timely information and provide access to like-minded organizations and individuals.

Annual Conference
• The annual conference features a blend of activities, indoors and outdoors, ranging from hands-on workshops to social gatherings. All grade levels are represented in sessions. The emphasis is on practical information and application. The annual general meeting of the GEOEC is held in conjunction with the conference.

Executive
• Members are elected to serve on the GEOEC executive.
• Contact the president or past president of the GEOEC through the ATA office if you are interested in seeking a position.
• Elections take place at the annual general meeting during the annual conference.

Workshops
• Various activities and workshops are organized by the GEOEC either as standalone events or in conjunction with other organizations.

Join now and become involved in the Global, Environmental & Outdoor Education Council

Name ____________________________________________ Alberta Teaching Certificate No __________________________
Address __________________________________________ Postal Code __________________________
School or Employer ____________________________ Grade Level/Specialty __________________________

___ New Membership ___ Renewal of Membership
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Make cheque payable to the Alberta Teachers’ Association and mail it with the application to the Association at 11010 142 Street NW, Edmonton AB T5N 2R1.
Parents and teachers are fighting back. Join us.

StandForEducation.ca
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Maggie Shane, the ATA’s privacy officer, is your resource for privacy compliance support.

780-447-9429 (direct)
780-699-9311 (cell, available any time)

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For more information on the ATA’s privacy policy, visit www.teachers.ab.ca.
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