

Connections

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Exploring a Magical Land...

Photo by Court Rustemeyer

The journal of the Global,
Environmental & Outdoor
Education Council



To promote involvement in
quality environmental and
outdoor education

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/geocalberta) and X (@GEOEC), where current information on PD opportunities and initiatives in Alberta can be found.

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Cover Photo

The opportunity to adventure in nature with youth is something that every teacher needs to experience. The sense of wonder and curiosity builds with each step forward on the trail. The students' determination, enthusiasm and energy were contagious for everyone involved on the trip. Watching the students become one with this beautiful old-growth forest only strengthened the depth of advocacy for our world.

This photo shows Grade 8 students from Vincent Massey School, in Calgary, exploring the West Coast of BC as part of their 11-day backcountry adventure!

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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.

Message from the Editors

One of the tremendous pleasures of being the editors of *Connections*, the journal of the Global, Environmental & Outdoor Education Council (GEOEC), is the opportunity to connect with so many incredibly passionate educators provincewide. A true sense of community has developed as we continue to discover ways to share ideas and resources that encourage authentic connections and learning. This shared dedication continues to uplift, inspire and encourage us. It makes collecting stories for our journal a gift.

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 through 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 for 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. We are always looking for positive stories to share. If you have an environmental, global or outdoor lesson idea or story, or if you know someone who is doing inspiring work we can celebrate, please contact us!

Alison Katzko and Abi Henneberry



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 E 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.

President's Message

Welcome back, everyone! I hope that school start-up was as smooth as possible and that the pieces fell into place for another great school year. The 2022/23 school year was wonderful for the Global, Environmental and



Outdoor Education Council (GEOEC). It seemed to be one of the busiest years to date as we have been approaching the new normal these past few years post-COVID. Every educator at every level is doing their very best to adapt and figure out a routine that works best for them. While we still have a way to go before we are able to go full speed again, it does not mean that we took it easy last year nor plan to this year!

Teachers attended and enjoyed so many wonderful workshops, PD events and conferences this past school year. The first ever Outdoor Learning Conference with Take Me Outside, in Banff, was a huge success! It was incredible to be surrounded by like-minded, passionate and inspirational educators and outdoor enthusiasts from across Canada. Make sure you sign up for the upcoming conference in May 2024!

This fall I encourage you to be in touch with our 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.

Once again, the Global, Environmental & Outdoor Education Council will be there to lead the way for you incredible members in each of your school communities. From workshops to webinars, speaker series and conventions, GEOEC has a bunch of events

coming your way this school year. We hope that you will be able to attend one or more of them.

This fall we look forward to presenting at the Beginning Teachers' Conference and preservice carousel. Check our social media for flyers and information! Our Solstice Series will happen again later this year as details are still being worked out to make that event the most successful for you educators. To go with our in-person PD opportunities, we will continue to dedicate ourselves to a strong online presence for teachers across Alberta with our virtual campfires.

I really hope that this is a year that environmental and outdoor educators are once again able to capitalize on taking kids on off-site experiences and field trips throughout the province. I hope that as you read this in the fall, I myself am on a bus to the mountains for an adventure with my students! I know so many of you have some excellent adventures planned, and I wish you nothing but the best success! Enjoy those bus rides, late camp nights and campfire stories. Whatever this school year holds, I know you will do your best to provide an incredible experience for the students.

I would like to take this time to thank each and every executive member of our council for all their time, dedication and effort put forth to help inspire and support teachers across this province. This council would be nowhere near our target today if it wasn't for this inspiring team!

Please keep up to date by following us on our website and social media. Do not hesitate to send us a note with any questions you may have. A huge thank you to all teachers across the province for your amazing work in your communities. Best of luck with all your adventures, and I hope to see you on the trails real soon.

Court Rustemeyer

GEOEC Business and News

Awards

Award of Merit: Peter Prescesky and Colleen Lee

Over the past decade, Peter Prescesky and Colleen Lee have been following their dream of building an outdoor education centre in the Rocky Mountains. This multifaceted Outdoor Learning Centre has created meaningful outdoor learning opportunities for thousands of students from across Alberta and the world!

Rooted in a small lodge in the heart of Bow Valley Provincial Park, Pete and Colleen have created a wide range of programs to help foster connection to the landscape, such as stewardship, understanding of natural processes, safe and responsible decision making, hard outdoor skills, team building and, most important, fun in the outdoor environment. The programs reach all ages and abilities and run year-round.

Within the Canadian Rockies School Division, they have supported the implementation of outdoor education through all grades and schools, even enabling every Grade 10 student in the valley to complete their avalanche skills training level 1 certification this year. Outside of their division, they provide field trip opportunities for any Alberta high school to access safe credit-based seasonal outdoor programming in the Rocky Mountains. Pete and Colleen have fiercely defended outdoor education amid a myriad of threats and challenges over the past couple years, and they continue to constantly pursue new growth and opportunities to make their passion accessible to even more students. Pete and Colleen embody a deep passion for the outdoors and continually strive to make it increasingly accessible to all students.

Award of Service: Scott Bailey

Scott Bailey has been a prominent member of Ever Active Schools, promoting outdoor learning and education. During his time at Ever Active Schools, Scott worked closely with GEOEC and the ATA and was instrumental in promoting and organizing workshops, PD



events and conferences. Through Scott's support, guidance and leadership, Ever Active Schools and HPEC have introduced more of an outdoor and environmental focus. Recently, Scott was an essential contributor for the very successful Shaping the Future conference in Kananaskis, as well as the year-long In the Round series.

Scott also cocreated the newest Ever Active Schools resource entitled Outdoor Quickdraw Cards, in partnership with GEOEC. These have been a massive success and a hit among educators and outdoor enthusiasts. These resources help bring outdoor education and environmental care to the front while students and teachers find new creative ways for daily physical activity.

While Scott is leaving his role at Ever Active Schools, we know that his support for GEOEC and the professional growth of our members will continue. We owe Scott an overwhelming amount of gratitude.

Award of Merit: Taren Holden

Taren Holden is a passionate, driven and extremely generous educator from the Camrose area in central Alberta. As a volunteer



and substitute teacher, Taren has taken on numerous initiatives to enhance programming and student opportunities at Round Hill School and in her community. Through permaculture initiatives such as the Round Hill Renaissance Agriculture Foundation, writing grants, volunteering and teaching at the school, Taren has been instrumental in the implementation of a schoolwide hot lunch program with locally sourced food from farms, gardens, artisans and bakers.

Taren has also successfully pursued grants that will fund the inclusion of Indigenous consultation and participation in this schoolwide permaculture process. Taren emphasizes that Indigenous knowledge is incredibly valuable, especially with proper care of land, water and air, so she is actively trying to infuse her teaching with this knowledge. Taren aims to highlight Indigenous history, traditions and ways of knowing by hosting Indigenous Elders, Knowledge Keepers and mentors throughout the year. She is working with the school to create a safe space for Indigenous voices to speak of local history and explore the long-term implications of these truths.

Taren exemplifies the core values and mission of GEOEC in everything she does both personally and professionally.

Distinguished Fellow: Jay Honeyman

Among Jay Honeyman's many contributions to the outdoor education world is his creation of the bear cart. GEOEC first interacted with the bear cart several years ago when Jay Honeyman participated in a workshop hosted by the council in the Bow Valley. This amazing and unique experience instantly allowed users to gain knowledge and skills that are not only essential for meaningful wildlife education but also instantly impactful in our own pedagogy of practice as outdoor educators. The bear cart speaks directly to the Alberta program of studies: teaching students to act safely and responsibly in their environments and to respect wildlife, helping to build on their practical outdoor skills.



The promotion of the bear cart through social media, workshops, professional development events and presentations has shown hundreds of teachers that this is possible in their own communities. GEOEC is incredibly fortunate to connect with Jay Honeyman and his creatively designed bear cart. Jay's inventive design has been instrumental in teaching outdoor safety and wildlife awareness. GEOEC owes Jay immense gratitude for a partnership in outdoor education.

Queen Elizabeth II's Platinum Jubilee Medal: Paula Huddy-Zubkowski

Congratulations to GEOEC executive Paula Huddy-Zubkowski on receiving the Queen Elizabeth II's Platinum Jubilee Medal!



The Podclass: Feature Episode with GEOEC President Court Rustemeyer

The Podclass is an educational podcast developed by Ever Active Schools. The first series, Conversations on School Health, is a collaboration with the Werklund School of Education that looks at maximizing the health and well-being of students and teachers.

Throughout the show, our hosts chat with professionals in the world of health, education and well-being to explore connections between the three.



What It Means to Join the GEOEC Executive

"An opportunity to create professional connections in hopes of empowering a community of educators to confidently incorporate the areas of global, environmental and outdoor education into their practice."

—Jeff Siddle

"I am surrounded by and able to participate in a supportive group of creative thinkers, who aim to increase awareness of our foundational pillars in our members and students, our future citizens. Being part of a progressive group with a concrete yet flexible plan going forward is inspiring, purposeful and validating."

—Abi Henneberry

"I have a passion for taking young people outdoors, and I want to make it easier/more accessible for teachers to do the same with their students. There are lots of obstacles to getting classes outside, such as knowledge, comfort zone, costs, paperwork, time, convenience, whatever it might be, but the GEOEC work that I am proud of is breaking down some of those barriers to enable more outdoor access."

—Tyler Dixon

"The outdoors is where I feel happy, so when I had the opportunity to be a part of GEOEC and bring that feeling to other teachers and students, I jumped. GEOEC is an innovative, creative and like-minded group of people that I am proud to be a part of."

—Sam Ur

"Meeting and learning from so many outdoor and environmental-focused teachers has broadened my understanding of education. As a member of the executive team, I also feel it is a privilege to have the space to build resources, connect other educators and inspire other teachers. It is an amazing opportunity."

—Carissa Esau

"GEOEC has allowed me to be part of a vibrant community, who appreciate building authentic outdoor experiences to help students be curious about our planet. I feel very honoured to work and surround myself with like-minded educators who have a passion for taking students outdoors. I am a lifelong learner, and I value all the knowledge I have gained from this inspiring committee."

—Paula Huddy-Zubkowski

"Being on the committee has raised my awareness to a vast amount of resources, materials and educators willing to collaborate on anything in the outdoor education world. It is mindboggling how much information and support are available from teachers across the country and facilitated through some of the hardest working people I've ever met on the GEOEC team. I am honoured to be a part of this team that puts in countless hours dedicated to outdoor and environmental education, and I do everything to promote it everywhere I go. Thank you to each and every one of you for your commitment and dedication to this incredible committee and way of life."

—Darren Moroz

"I have never been prouder to be a part of a team such as the executive team on GEOEC. Inspiring, passionate, driven and overall incredible educators. If the past few years have taught me anything, it is that anything can be accomplished with a strong team around you. They make all tasks and challenges easier to face because I know we are in it together."

—Court Rustemeyer

For more information on how *you* can be a part of this amazing team, please contact the GEOEC team on our website at www.geoec.org.

Featured Outdoor Locations

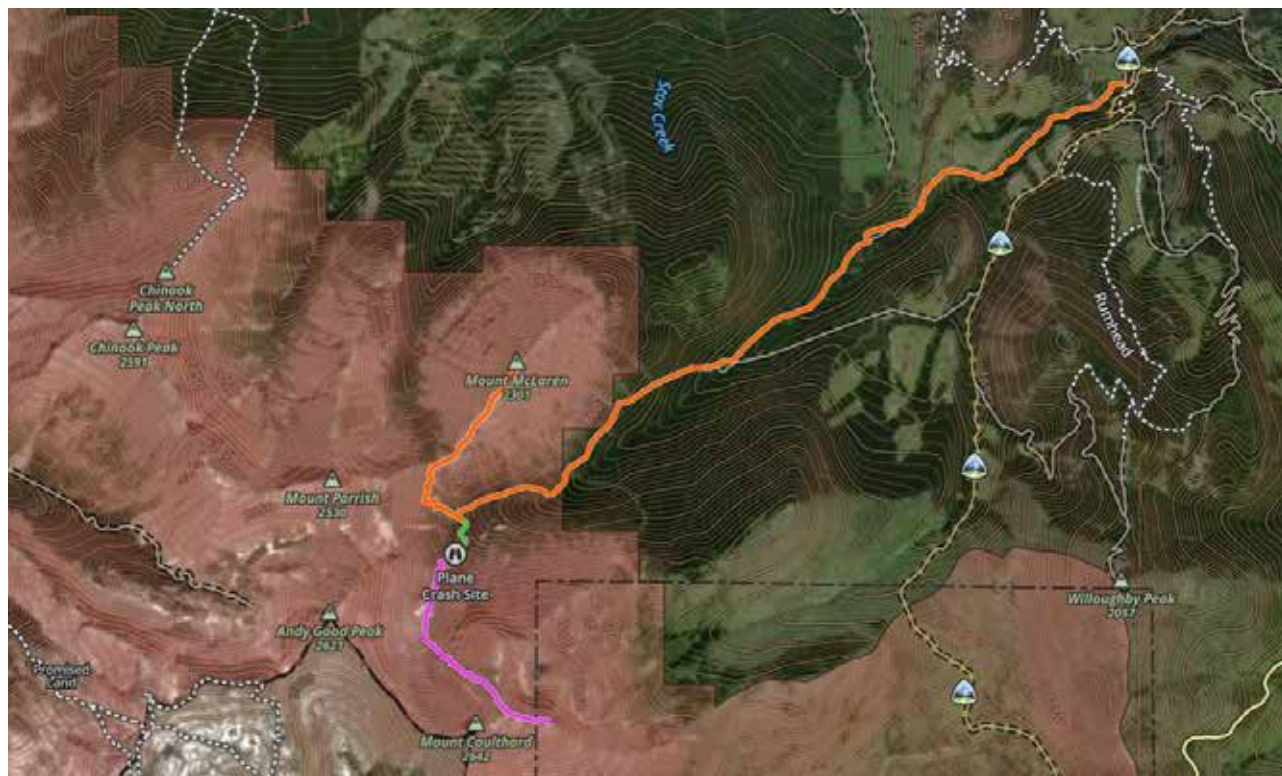
North York Creek Dakota Plane Crash Site

Don McLaughlin

The Hike or Bike/Hike

From the north end of the Lusk Creek PRA parking area, pick up the trail that at first trends north and later northeast. The initial section of the hike is through thin forest (relatively steep at first), which

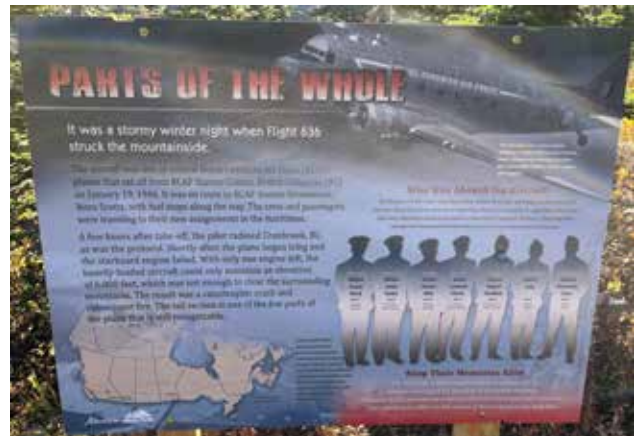
quickly delivers you to an open ridge with nice initial views of Barrier Lake. Travel to the Horton Hill summit is along a reasonably good trail with good views to the south and southwest. Once you near the summit, look for a large ammo can with the summit register and soak in the splendid views.



North York Creek Route

Accessing the Trailhead from Crowsnest Highway

1. Take 16th Avenue off the Crowsnest Highway as you head west into Coleman.
2. Follow 16th Avenue, turn left onto 81st Street and cross the railroad tracks.
3. Turn left on 15th Avenue, then turn right onto 83rd Street, which has a bridge crossing the Crowsnest River.
4. Turn right onto 13th Avenue, which becomes the York Creek Road and turns onto a dirt and gravel road in a short distance.
5. Follow the York Creek Road down a hill, cross a yellow bridge and park on the far side of the bridge (about 6.2 kilometres from the turn onto 16th Avenue).
6. Access to the Dakota plane crash site trail is on the opposite side of the bridge on the left-hand side as you cross the bridge.



Dakota plane crash signs



Dakota plane crash wreckage

Preparation

1. Pack adequate hydration and snacks, and a sun hat and sunscreen.
2. Pack bear spray. You never know where Yogi might be in these parts. It's always a good idea to make noise, and this will probably help you avoid a bear encounter.
3. You might find it useful to carry a light day pack (15–20 litres) to hold all of your hiking necessities.

Trip Statistics

- Six to ten hours long depending on pace and extensions.
- Expect a bike/hike of about 20 kilometres round trip with roughly 700 metres of elevation to the Dakota plane crash site from the recommended parking spot.
- If you only check out Mount McLaren, you're looking at a 17.5-kilometre round-trip hike/bike with 1,050 metres of elevation.
- An extension to Mount Coulthard will result in a round-trip distance of 20–25 kilometres with 1,400 metres of elevation.



McLaren Ridge



Mount Coulthard central and west summits as seen from the east summit

Mental Health Outside

In Recognition of Maya Willms's Contributions

GEOEC would like to acknowledge and thank Maya Willms for her past written and photographic contributions to our journal, *Connections*. We have been fortunate to have had Maya's thoughts, suggestions and shared experiences promoting mental health for our readers through accounts of her own adventures in the outdoors and time well spent in nature. While we were hoping to publish more of Maya's work in this issue, she informed us that she is currently busy as a new mom! We wish Maya and her family all the best in this next important phase of their lives, and we look forward to seeing more of her articles in future issues of our GEOEC journal and enhanced newsletter for members.

Best wishes, Maya!

—GEOEC Executive Team



Articles

Nature-Based Social-Emotional Learning: An Exploratory Qualitative Study in Alberta

André G M Pires

Introduction

Spending time in nature is associated with many benefits for health and learning. For example, nature-based learning (NBL)—learning through contact with nature, whether indoors or outdoors—promotes physical activity, mental health, academic achievement and social connection (Kuo, Barnes and Jordan 2019). Experts advocate for NBL as a way to foster children’s academic, social and emotional development, as well as foster the attitudes and knowledge for environmentally sustainable behaviour (Jordan and Chawla 2019).

Social-emotional learning (SEL) is an evidence-based practice to prepare students for school and life success. SEL entails the process through which all young people and adults acquire and apply the knowledge, skills and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions (CASEL 2023). SEL comprises five interrelated but distinct domains of competence:

1. Self-awareness is about recognizing one’s emotions and values, as well as one’s strengths and challenges.
2. Self-management involves managing emotions and behaviour to achieve one’s goals effectively in different situations.

3. Social awareness is about showing understanding and empathy for and taking the perspective of diverse others.
4. Relationship skills include communication, forming positive relationships, working in teams, and dealing effectively with conflict.
5. Responsible decision making entails making and evaluating ethical, constructive choices about personal and social behaviour.

Research shows school-based SEL programs positively impact a wide range of outcomes including improved personal and social skills and attitudes; improved academic performance; and reduced problematic behaviours, emotional distress and drug use. Positive effects remain over the long term and are found across diverse family backgrounds and geographic contexts (Durlak et al 2022).

The state of the research in both NBL and SEL point to their parallel and perhaps synergistic effects. For example, both approaches promote perseverance, self-efficacy and resilience, as well as emotion regulation, social skills and responsible behaviour (for example, environmental stewardship). However, there have been few published studies on the overlap of these fields.

Researchers have called for further investigations into the processes and outcomes of each field, including possibilities for how the two can be integrated—nature-based social-emotional learning (NBSEL). In Alberta both fields have been relatively

underdeveloped. A better understanding of how NBL and SEL can be integrated can help increase their adoption and high-quality implementation and strengthen potential benefit for students' academic, social and emotional development.

The research questions of this study follow:

1. How is NBL being used to promote SEL in Alberta?
2. What are the barriers and obstacles to NBSEL?
3. What advice can be given to other educators?

Methods

Alberta teachers with experience in SEL and NBL (for example, outdoor and environmental education) were recruited through social media for 30- to 60-minute interviews to explore the research questions.

A hybrid inductive-deductive thematic analysis was performed along the five SEL competencies and inductively according to data-driven themes. Participants chose pseudonyms to ensure anonymity.

See the table below for a breakdown of the participant demographics.

Participant Demographics			
		Frequency	Percentage
Gender	Male	3	33
	Female	6	67
Location	Urban	7	78
	Rural	2	22
Grade Levels	Elementary	7	78
	Junior high	1	11
	Senior high	2	22
School Designation	Public	9	100
	Private	0	0
	Charter	0	0

Note: Total participants = 9; 1 participant taught both junior and senior high; therefore, grade levels percentages add up to over 100 per cent.

Findings

Research Question 1: How NBL Promotes SEL

Nine themes emerged from the data as NBL activities that promote different aspects of SEL.

Theme 1: Risk-Taking

Risk-taking includes opportunities for outdoor risky play and decision making in situations where there is a degree of perceived risk. Subthemes include (a) natural consequences, where students experienced real-time and felt consequences to their decisions; (b) safety first, as teachers always intervened in the case of potential significant harm; and (c) risk evaluation, which is the use of formal risk assessment processes. This theme entails reflecting on and learning from mistakes and miscalculated risk, and promotes self-awareness, self-management and responsible decision making.

Theme 2: Conversations Outdoors

The participants collectively described unique ways of conversing in outdoor spaces that are unlike conversations inside the classroom. Subthemes include (a) walk-and-talk, where teachers and students had structured or unstructured conversations while walking; and (b) talking circles, which are structured activities where students and teachers sit/stand in a circle and listen, share and reflect. This theme promotes social awareness and relationship skills.

Theme 3: Environmental Education

This theme captures a range of activities about aspects of the natural environment, where caring for the planet and its inhabitants is the ultimate objective. Subthemes include (a) earth stewardship, which entails the instruction and practice of actionable steps to care for and promote nature; and (b) environmental science, which is about teaching scientific knowledge and engaging in observation of natural elements and processes. This theme promotes self-management, social awareness and responsible decision making.

Theme 4: Sit Spots

This theme describes the singular activity of independent self-reflection and observation of the

inner and outer worlds while in a natural setting. Sit spots promote self-awareness, self-management and social awareness.

Theme 5: Adventure Trips

Some participants described the tasks and activities involved in planning, preparing for and going on extended day or overnight adventure trips. Subthemes include (a) trip planning, which involves planning for and preparing the logistics around a trip and following that plan; and (b) common goals, which are tasks that must be done in a group, where failure and success is shared. This theme promotes self-management and relationship skills.

Theme 6: Cooperative Games

Several participants reported leading their students in outdoor group games and activities wherein working together is necessary to succeed. The activities within this theme promote relationship skills.

Theme 7: Restorative Qualities

This theme captures passive aspects of outdoor spaces that are pleasant, instill feelings of safety, or are restorative for mood and cognition. The various qualities of nature within this theme promote self-management.

Theme 8: Other Pedagogical Practices

Many participants reported other, general pedagogical practices that are related or adjacent to but are distinct from NBSEL. None of these practices necessarily happen outdoors, but they are frequently and widely used to support the learning objectives of NBSEL. Subthemes include (a) debriefing, which is group reflection after an activity; (b) journaling, which is individual, written or drawn reflection, with or without prompts; (c) formative assessment, which are tools that identify students' struggles or learning gaps; (d) direct instruction, which is sequenced and explicit teaching of a skill, modelling that skill, and creating opportunities for practice; (e) place-based instruction, which is instruction or activities revolving around the local community; (f) experiential learning, which is simply learning by doing; and (g) Indigenous land-based learning, which is instruction or activities that acknowledge or integrate Indigenous traditions.

Research Question 2: Barriers and Obstacles

Within the main theme of "barriers," four subthemes emerged as factors that make NBSEL implementation difficult for teachers.

Subtheme 1: Administration and Time Pressures

This theme entails demands imposed from administrators or other teaching commitments that leave little time and energy for NBSEL. For example, administrators may not be "sold" on the effectiveness of NBL or SEL, or core subject curriculum may take precedence over what may be perceived as "just playing outside."

Subtheme 2: Funding and Resources

This theme entails the lack of financial, material or human resources to implement NBSEL safely, with quality, or at all. For example, it is expensive to pay for transportation, going outside in cold weather requires specialized clothing that many schools and families cannot afford, and higher adult-to-student ratios are needed for supervision in outdoor spaces.

Subtheme 3: Training and Knowledge

This theme captures teacher-participants' or their peers' perceived lack of confidence or expertise to deliver NBSEL with quality or safety. Often, teachers who have some interest in NBL or SEL are hesitant to take children outdoors not because they have a genuine lack of knowledge, but because they have not yet made a link between NBL and curriculum objectives.

Subtheme 4: Risk and Litigation

This theme regards insurance-imposed limitations to NBL and teachers' perceived fear of parental litigation over potential student injuries. Insurance policies frequently prohibit activities which can be done safely and with great learning potential (for example, rock climbing). Some parents are risk-averse and threaten to sue after minor accidents and injuries. Consequently, some school districts are hesitant to allow teachers to implement NBSEL initiatives.

Research Question 3: Advice

Within the main theme of “advice,” three subthemes emerged as actionable recommendations that would help educators implement or advance quality NBSEL.

Subtheme 1: Networking

This theme includes recommendations to connect with colleagues, parents and other professionals who can lend support to the educator and their NBSEL. Often other educators (for example, school psychologists) within the same school division have interest and experience in NBL or SEL and may be available for consultation or collaboration. Parents and other school staff may have skills or equipment that they can donate. Professionals in local organizations (for example, university students, outdoor/environmental education associations) may be available to help on field trips or in the classroom.

Subtheme 2: Professional Development

This theme included several ways to engage in self-directed or formal learning and training opportunities. There are several podcasts (for example, Podclass, Outdoor Education Podcast), books (for example, *Coyote’s Guide to Connecting with Nature*, *Braiding Sweetgrass*), and courses (for example, Outdoor Council of Canada Field Leader, Project WILD) to bolster knowledge of NBL. Included within this theme is the idea that educators and researchers can gather data (for example, student testimonials, behavioural descriptions) to advocate about the effectiveness of NBSEL to administrators, funding bodies, parents and other stakeholders.

Subtheme 3: Taking the Plunge

A majority of participants recommended beginning an NBSEL practice that is comfortable and achievable—just start small, start nearby, see what works and build up from there. Educators do not need complicated trip plans right from the beginning. It is often easier to do NBSEL close to the school (for example, in the schoolyard), and start with an activity that is manageable (for example, silent reading under a tree, community litter cleanups).

Discussion and Implications

As reported by practising K–12 teachers in Alberta, NBL has the potential to promote various SEL competencies in students. By engaging in a variety of formal and informal, structured and unstructured, and individual and group activities in nature, students can learn to better understand themselves, be more empathetic, interact with others and nature in a more positive way, and engage in critical thinking and ethical decision making. Although the participants identified several barriers to implementing NBL and SEL, they also left actionable recommendations for other educators who might want to begin or advance a NBSEL practice.

This study adds knowledge of how NBL and SEL are currently being integrated into K–12 education in Alberta. The themes identified provide some guidance for teachers who might want to begin a NBSEL practice but are unsure of what activities to facilitate. Additionally, the themes provide some direction on NBL activities that target specific SEL competencies (for example, self-management, social awareness). Having an understanding of actual barriers that teachers have faced can help administrators to better support in delivering quality education, including providing essential supports and resources and having discussions about the relevance and importance of this work. This information can help current and prospective nature-based educators better understand what is involved in teaching outdoors, what the possibilities are, and how to begin such a practice.

These findings also have implications specifically for school psychologists. According to the National Association of School Psychologists (www.nasponline.org/), one of the principal roles of school psychologists is to support the academic, social and emotional development of all students. School psychologists can use these findings to tailor professional development and consultation services for educators and administrators to bolster adult SEL, knowledge of supporting SEL, and how to integrate SEL into NBL. With their extensive training in research methods and program evaluation, school psychologists are well situated to evaluate the effectiveness of NBSEL.

School psychologists can then use this information and their knowledge of educational systems to advocate for NBSEL integration to better address achievement, social-emotional, and well-being gaps and inequities.

Conclusion

Based on conversations with participants, this study found that a variety of nature-based settings, activities and principles have helped in fostering students' social-emotional development. Teachers have experienced unique challenges in delivering NBSEL, but they recommended several actions to help overcome barriers and to begin or advance this work. This study responds to several calls for research with its contextualized perspectives from educators who are on the ground and doing the work in Alberta. This study enriches the educational psychological corpus with its finding that multiple NBL practices can promote SEL in K–12 students.

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Becoming a Grosvenor Teacher Fellow: A Journey Unparalleled

Paula Huddy-Zubkowski

A sense of calm came over me. More and more often I found myself thinking, this is where I belong. This is what I came into this world to do.

—Jane Goodall



Almost five years ago, I embarked on an expedition with National Geographic and Lindblad Expeditions to South Georgia and the Falklands, a journey that would forever change my life as an educator. Becoming a Grosvenor Teacher Fellow transformed my teaching and my understanding of the interconnectedness of the world. As I stood amid the colonies of over 200,000 king penguins, I felt a sense of wonder and peace I had never experienced before. The silence was profound, broken only by the calls of the penguins and the sound of the wind.

Being in a place with no roads and street lights was a humbling experience. It made me realize how much we take for granted in our everyday lives, where we are constantly surrounded by the noise and distractions of



Salisbury Plain, South Georgia Island

daily life. I felt a deep connection to nature and a sense of responsibility to protect it for future generations.

As an educator, I knew that this experience would have a profound impact on my teaching. I wanted to inspire students and educators to become changemakers, to make a positive impact on the world. I wanted to instill in them a sense of wonder and awe for the natural world and to encourage them to take action to protect it.



This image is Jessi Parra and Paula Huddy-Zubkowski being citizen scientists and taking water samples to test the Southern Ocean for microplastics. All 17 samples submitted to a lab in the United States came back with evidence of microplastics in the ocean waters.

Since this experience, I have designed a district STEM challenge called the ChangeMAKER Challenge. The challenge invites students to consider the United Nations sustainable development goals to apply design thinking to solve issues around the world. The design challenges encourage students to think critically, work collaboratively and use their creativity to make a positive impact on the world.

As I reflect on my expedition to South Georgia and the Falklands, I am reminded of the power of nature to inspire and transform us. The silence, the wonder and the sense of responsibility I felt have stayed with me and have shaped the way I teach. I hope to inspire my students to have a similar experience and to become changemakers who will make a positive impact on the world.

To become a Grosvenor Teacher Fellow (GTF), you must first apply for the National Geographic program. The application process typically opens in the fall and is open to K–12 classroom teachers, informal educators



Salisbury Plain, South Georgia. King penguins meeting Frosty the polar bear! Frosty is an environmental bear that has travelled coast, to coast, to coast in Canada. He continues to embark on many adventures like South Georgia and most recently the Galapagos Islands.

and home-school educators who are citizens or legal residents of the United States, Canada or Puerto Rico.

The application requires a written response to questions, a resume and two letters of recommendation. Applicants are also asked to provide examples of their classroom work, community involvement and leadership experience.

Becoming a Grosvenor Teacher Fellow requires a passion for geographic education, a strong commitment to leadership and a competitive application. If you are interested in applying, I recommend visiting the National Geographic website for more information on the application process and eligibility criteria.

Do you want to become a Grosvenor teacher too! Need help? Contact me on X @littlephz.



It is important to remember to relax, read and reconnect with nature. This image is from South Georgia island where Paula Huddy-Zubkowski read to king penguins to share with her students.

Smashing Summit Success! The 2023 Canadian Rockies Youth Summit: Growing Impactful Voices

Maya Carr

Background

The Canadian Rockies Youth Network (CRYN) was founded by Calgary high school students in 2019. The network was created out of recognition that conservation issues in the Rocky Mountains were becoming increasingly important and that youth were not engaged in decision-making processes. To combat this, the CRYN was formed, and we have been hosting in-person and virtual summits since 2019. Most recently, in March, the 2023 CRYN Summit: Growing Impactful Voices was hosted at the Barrier Lake Field Station in Kananaskis Country.

The point of this summit was to gather youth from across the Rocky Mountain region to empower youth-led environmental change. To plant these seeds prior to the summit, we hosted four online presummit workshops that covered such topics as wildlife conservation, Indigenous teachings and environmental policy. Throughout these workshops, we encouraged youth to think about environmental issues in their communities and to generate ideas around what they could do about these issues. Having this set-up, youth arrived at the summit with an environmental issue in mind that they wanted to address. We had roughly 40 students join us at the summit. Groups came from communities like Canmore, Lacombe, Piikani Nation, Calgary, Mini Thni Nation and Invermere.

What sort of action projects were developed at the summit?

- Green Energy and Climate Lab Project—Students from Calgary are implementing education/awareness around green energy. To achieve this, their project plan is to implement visible solar panels and a miniature wind turbine at their school.
- Nom-Nom Recycling—A group of youth from Canmore generated a project around making recycling more accessible for residents and raising awareness/education around waste management in their community.
- The Ultimate Guide to Starting an Eco-Club—A youth from Calgary is building an accessible toolkit of resources for other students looking to start an environmental club in their schools/communities.
- *Supii-po'omoaksin* (planting seeds)—A group of students from Piikani Nation generated a project around teaching younger kids about the environment and traditional medicine through classroom visits and activities in their greenhouse.
- SD6 Waste Works—Youth from Invermere, British Columbia, generated a project around implementing proper recycling and waste management throughout their school district.
- Sustainability in Sports—A youth from Calgary created a project around changing the paint used when laying down the sidelines on soccer/football fields into a biodegradable option.
- Food Security Project—A group of students from Lacombe generated their project around increasing food security for students at their school by

growing their own organic produce and creating partnerships within their community to support this project.

Here is what some summit attendees had to say:

- “Real change is achievable.”
- “I would recommend this. For youth coming into this program, use your passion to help the environment.”
- “It’s better to do it and regret it than to not do it and regret it.”
- “If not now, when? If not us, who?”
- “You are strong, you are not alone, find community, be loud!”
- “We CAN solve the climate crisis!”
- “Renewable resources: 1. YOUTH. End of list.”

Overall, this summit effectively inspired participants and gave them the knowledge and resources to build their own climate action plans. The conversations and teachings that happened at this summit will create long lasting ripple effects in communities across Alberta and BC. Our job is not finished. This work does not end here. Summits like these will continue to inspire and empower youth to take action and become leaders in their communities.

Are you interested in attending, sending students, sponsoring or speaking at the next CRYN summit? Please e-mail canadainrockies.youthnetwork@gmail.com for more information!



Maya Carr (she/her) is a Grade 12 student from Mohkinstsis (Calgary) within Treaty 7 territory. Her love for exploring the outdoors led her to take an Energy and Environmental Innovations course at the Career and Technology Centre in 2020. This class jump started her passion for environmental advocacy and since

then she founded the Environmental Club at her high school, attended Girls on Ice and Outward Bound backpacking trips, and was the recipient of the 2022 Mountain Spirit Award. This year, Maya stepped into the role of director of the Canadian Rockies Youth Network where she leads other high school youth on the CRYN committee to take on new projects and plan huge events like the 2023 Canadian Rockies Youth Summit: Growing Impactful Voices. Maya believes youth advocacy plays a vital role in the fight toward climate justice and that youth deserve a seat at the policy-making table.

Choose Your Own Adventure— Geese Style

Samantha Ur

For students to be engaged in what they are learning, they need choice. We all know this. So why not give them a choice outside?

I took students out to do nature journaling and gave them the choice of direction to explore. I gave them two choices, followed by a vote, and we explored in the direction of the majority. We ended up at our local stormwater pond.

A week prior, our students found a barred tiger salamander outside one of our school doors. We took a look at it, did some research and released it near the stormwater pond. When we ended up at the pond this week, students were keen to look for our salamander friend!



At the pond, students were naturally curious. They looked at the vegetation growing around the pond. (Anyone else call cattails wild glizzies?!) We looked for our salamander friend but concluded that he must have found a new home.

Our attention was drawn to a flock of geese flying toward the pond. One student was keen to replicate the sound they were making. One student tried counting how many geese were currently in the pond. After a few moments, students were asking to stay and watch the geese for a while. How could I say no?

We observed how the geese came toward the pond in V-formation, broke rank to slow themselves and looked unsteady, and then finally they stuck their necks and legs out and flapped furiously before landing in the water. One student observed that the new group of geese landed together. One student tried replicating their movements. A group of students wanted to draw the geese. As we observed, more flocks of geese flew in.

Students were asked to estimate how many geese they saw in the pond. Some students attempted to count them all, and that proved difficult. Others chose to count a small amount of geese and use that number to help them guess the total number.

A group of students wanted to get a closer look at the pond. As we drew near the cattail shore, we discovered garbage. In fact, a whole metal fire pit was found. We couldn't safely collect it, but it led to the group talking about what might happen to the geese if they were close to our side of the pond. The students began collecting bits of garbage they could find.

As we started walking back to the school, flocks of geese continued to fly into the pond. Hundreds of geese were flying to the pond! Students were excited to make guesses about why so many geese were coming

...Articles...

together and how they knew to go to that particular pond. That led to more students picking up garbage on their way back to the school to protect the geese. We had handfuls of plastic bits, and some students were using a large plastic fence piece as a tarp to carry more.

When we got back to the school, a few students asked for garbage bags to collect garbage during

recess. They even recruited students from other classes to help them.

What started as a choice in direction turned into a scientific look at Canadian geese behaviour and habitat with students choosing to take action regarding care for the environment. What a splendid way to spend an hour!



The Best Teaching Practicum Ever!

Braeden Kelly

Cooking bannock over a fire, digging to make quinzhees, building fires, practising hypothermia wraps and more. If any teacher was able to cover these skills over a semester it would be a huge success. At the Canadian Rockies Outdoor Learning Centre, all these skills and more are covered on an average Tuesday.

After a difficult practicum teaching full-time physical education, I wanted to switch things up with my next practicum. My passions lie with outdoor and environmental education, and my pedagogical preference is to teach experientially and through authentic and student-centred tasks. After meeting Jeff Siddle, a GEOEC executive and fellow Augustana alumni, at a paddling festival, the stars aligned, and I was placed at the Canadian Rockies Outdoor Learning Centre for my practicum. After some initial trepidation over the secluded location of the school and the challenges of meeting my practicum requirements, I quickly fell in love with the centre and its programs.

The Canadian Rockies Outdoor Learning Centre is truly a diamond in the rough. Unknown to most Calgary educators, but beloved by many Bow Valley teachers, the centre was founded just over 10 years ago. When Alberta Parks decommissioned the building that is now home to the centre, the Canadian Rockies School Division acted quickly and proactively and bought the property to save it from destruction. Over time this decision has paid many dividends, as the centre has grown in staffing and programming. Now the centre offers overnight four-day courses where high schoolers can earn three credits and facilitates outdoor education lessons both at schools and at the centre that connect to the Alberta curriculum.

As a practicum student I have been paired with the incredible Colleen Lee (recipient of a recent GEOEC award). Together as a team, in only six short weeks we have worked with many classes and teachers making

learning come to life in an outdoor setting for the students. Here are some highlights:

- Giving teachers a break by facilitating full-day lessons and supplying them with follow-up resources.
- Working on a Stoney Nakoda traditional games unit for the Grade 5s at Exshaw School with local Stoney Nakoda community leaders.
- Fitting 12 Grade 7 students in a quinzhee that they built in one day to learn about heat loss.
- Having a wilderness first aid/body systems unit. This was followed with a comment by their teacher that this was the most they had laughed and participated in in a while.
- Making music in the forest and maple taffy in the snow with kindergarten students to teach them about their five senses.

This is just a snapshot of an incredible six weeks. The experiences we have created for the students have been rich and authentic. The students' engagement and the teacher feedback have clarified that these sessions have been meaningful and helpful by giving context to concepts they have been learning in the classroom. Although I am sad this practicum is coming to an end, I am so excited to be back in the spring for my final practicum. If you are reading this, you undoubtedly know the power of outdoor education and experiential learning; the Canadian Rockies Outdoor Learning Centre is leveraging this to impact so many students, and I am very proud to have been a small part of that.

My Summer of Paddling Lakes: A Balance of Wars from Pandemic to Ukraine

Sherry Heschuk

February 2023 marked the one-year anniversary of the war in Ukraine. I volunteer to teach Ukrainian youth and local students for Smart Osvita (<https://en.smart-osvita.org/>), a local nonprofit organization with connections to current teachers.¹ Despite their lack of traditional schooling, students in Ukraine have continued to take lessons remotely from retired teachers like me. I teach classes online that I would otherwise teach outdoors on lakes and rivers here in Alberta. A paddle event for my students on Zoom has been supported over the summer months by the organizers who have been there every day for the last year in Ukraine. On a daily basis, these teachers teach students online while engaging with their own students. They are based in Alberta and all over Canada.

The following is an example of the resiliency I have witnessed among these learners. A parent from Ukraine provided a personal insight, stating that this opportunity is equal to “islands” of normalcy that so many students need. This has been my favourite and most inspiring story from my volunteer work in this capacity.

Sherry recounts how she has been able to find joy in her work during the pandemic.

I love paddling!

I graduated from university in 1989 with a bachelor of physical education, followed by a bachelor of education and a readiness to teach education students. I can honestly say that in my 22 years as an educator (including teaching students in field experiences), the winter 2023 semester has become the best opportunity to continue to teach as a volunteer.

I have been impacted by the community response to the pandemic in a way I never thought possible. Many of us were surprised at how much our lives would be impacted during the early stages of lockdown while coming to terms with the measures we had all experienced. I looked forward to summer days in my kayak. I began to plan my *escape*, marked by the start of the paddling season. I became acutely aware that this would be significantly different from my previous summers on the water when I taught paddlers on the ponds at Rundle Park in Edmonton as a Paddle Canada certified instructor, as well as when I planned large events like voyageur brigades for our local Ceyana Canoe Club or public programs at the park (as they were cancelled in 2020). Water usually fills these ponds, but they stayed empty the first year of COVID-19. Our local river valley also became flooded as a larger than normal volume of water flowed downstream, too swift for paddlers who simply want to float.

How did you spend your pandemic-paddling summer with this change to your normal routine?

I spent my pandemic-paddling summer paddling to the parks across Alberta, including the far north, that were potentially losing their protection from the provincial government. We brought attention to locations like Chain Lakes North. My colleagues and I, from far and wide, needed to help save Chain Lakes North. We were all concerned about defending our parks. We had people sign a petition from the four corners of the province, which was sent to local governments and organizations. I met paddlers on

short and long paddles who couldn't believe what was happening to "this lake" or "that well-known natural area." We could not believe we could lose these parks outright.

The same summer I participated in an interview with a researcher, John Neufeld, from Concordia University, in Montreal. His master's study is titled "The Geography of Mourning: Contemplating the Life and Loss of Alberta Wetlands." During this discussion, I realized that my appreciation for the impact of drought and climate change on Alberta wetlands extended to Ukraine as well. My willingness to share my love of water meant that the best days were when I could paddle on a summer evening no matter what was happening around me. I wondered if by next spring this lake and the other places would still be available for campers, paddlers and fishermen. In support of Defend Alberta Parks, I kayaked on at least 10 lakes or rivers near campgrounds and conservation areas that were to be delisted. The will to go and paddle was my saving grace. To appreciate a new way to move forward in the deepening shadow of a dark future, I found the water.

I spent my spring, summer and well into the fall during the last two years as a pandemic paddler. When water levels engulfed the banks of the North Saskatchewan River in late July, and as the COVID-19 cases first subsided then skyrocketed across the land, I paddled in small strokes to glide across an abyss of COVID-19. It became yet a new ride when the fall brought a new variant for us to navigate.

Sherry credits a positive influence on her journey.

I read about the rivers and lakes in many other locations around the world: a river in Kampot, Cambodia, and a wetland north of here at Crooked Creek in Athabasca County. I asked myself, "Will these areas and places cease to exist when water is not available?" It makes me think that the rivers and the waters are experiencing life just as you and me. The answers to my questions are not fast and swift like the river's white water. I am reading *Signs of Water: Community Perspectives on Water, Responsibility and Hope* (Jakubec and Boschman 2022), which is another book I could use to help me share about paddling on lakes and rivers. I am seeking something like the "wild swimming" described by Deakin (2000), who explains how swimming as an activity relates to the feeling of harmony one experiences when paddling on calm water.

Another comparison comes from author Tristan Gooley, whose books, *The Lost Art of Reading Nature's Signs* (2015) and *New York Times* bestseller *How to Read Water* (2016) are among my favourites. As stated by Gooley (2015, 290), "When looking at a body of water you will notice that there are dark patches of water and light ones. There will be a mixture of dark and light reflections depending on whether you are looking at a reflection of the sky or the land. We will only see the faint ripples at the boundary between the light and dark patches, because this is the area where the ripples will mix up the light and dark." He explains



Photo credit: Mark Lund on the North Saskatchewan River

how desperately we need harmony between the light and the dark patches during these last few years, and water's soothing calm after these turbulent times.

A recent audio link from a local Edmonton writer who contributed to a Capital City Press Anthology audio has provided insight into water in the past and present with "The Water Between." Author Laurel Manuel's relatable story is so much a part of our backbone. This story, which is set in the summer, provides background and insight on our landscapes, as it relates to the long history of natural and human-related events on and near the North Saskatchewan River. It is also noted in this anthology piece that paddling can be one of the other ways to explore the river in our Edmonton river valley. It was a finalist for the 2021 Writers' Union of Canada short prose competition.

Many times, we have heard from young people like my students envisioning spring as a new beginning: a time when we crawl out of hibernation, a long period spent sheltering during Alberta's cold winter. If we are indeed in the valley of the shadow of death, as Greta Thunberg (2019) tells us, we need to lead ourselves out. "No other force will do that for us."

I give credit to all Teachers for Ukraine for supporting those students who are currently being impacted by the war in their lives. It is a much-needed opportunity. Please contact cww@classroomswithoutwalls.ca if you are available to teach students online in Ukraine, Pakistan, Afghanistan or Myanmar. For more information, go to <https://classroomswithoutwalls.ca/>.



Photo credit: Larry Petryk



Sherry Heschuk with students and Frisbee Rob and their world record attempt at Silver Skate Festival.

Notes

1. A Ukrainian version from Olena Zhupanova is also available at www.smart-osvita.org. This is for anyone who is interested in teaching students who are currently being provided lessons from Teachers for Ukraine. Interested parties may e-mail Olena, who is the program coordinator for Smart Osvita NGO: o.zhupanova@smart-osvita.org. People may also reach out to David Falconer in Calgary for Classrooms Without Walls at cww@classroomswithoutwalls.ca.

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Sherry Heschuk is a Paddle Canada certified instructor, teacher and paddler, who teaches students in Ukraine for Smart Osvita and for Classrooms Without Walls. Sherry's poem, "The River and My Canoe," is available at www.arta.net/news-events/general-interest/the-river-and-my-canoe/. Translation in Ukrainian by Olena Zhupanova.

Wild Jobs: Park Warden

Tyler Dixon

It had been a long day. Ed's 57 winters combined with the warm sun of later afternoon weighed heavily on his eyelids, so he drowsed in the saddle, riding with a slack rein. Sometimes he loosened his right leg from the stirrup and let it trail free, because the chunks of steel-jacketed lead the army doctors had overlooked pinched the nerves at times, making it painful to bend his knee. Now and again the horse, sensing its rider was dozing off, would stoop to steal a mouthful of grass along the way, but mostly it stepped along quick enough, headed for the cabin and a bait of oats. Ed's dog, Willie, a six-month-old collie pup, ran along under the stirrup. Ed trusted the horse. It was a seasoned animal that knew the country well and knew the dangers too. They had seen a silvertip earlier that day, feeding on the broad leaves of cow parsnip at the edge of a small meadow near the trail, but Ed had passed it off as just another grizzly. The horse had never run from a bear before. This time, though, it must have come on to the bear sign too fast, or perhaps the wind changed suddenly and the horse got too much bear stink all at once, because it suddenly shied violently, and Ed, not having a good seat, with one leg out of the stirrup, found himself flying off before he could gather rein. He landed on his back, right on a dead tree that lay beside the trail. Something gave with a snap that made him yell with agony and, winded, he lay still, wondering what had hit him. Before he could move, the horse came by him, bucking, and kicked him hard on the hipbone. Still unaware of how badly he was hurt, in the numbness that sometimes follows a serious injury, Ed tried to get up, but found he could not stand. His pelvis was broken.

—Sid Marty from *Men for the Mountains*

The vivid scene, so eloquently written by long-time warden Sid Marty, showcases the stark contrast of the

warden lifestyle perfectly. First, we have the romanticized version: a man alone in the remote wilderness, sitting low in the saddle after a long hard day, the sun setting on his back as he rides to a backcountry cabin for some well-earned shuteye. We imagine birds chirping, leaves rustling in the breeze and a brook babbling nearby. The idyllic scene quickly evaporates as the dangers of the job explode onto the page. An unseen and unexpected encounter with a surprised bruin left this particular gentleman badly injured, but he survived to tell the tale. The story above is from the late 1930s, but that image of a lone warden patrolling outlying borders has persisted for decades, despite their roles radically evolving over the years.

The warden service has been in existence for over a century. The person first appointed to the role of warden (known as forest rangers at the time) was John Connor, back in 1887. In those early days their main concerns were with fire suppression and game management. Over 20 years later, in 1909, the warden service was officially realized by the Department of the Interior. Permanent positions were created, luring some of the most famous characters the warden service ever produced, such as "Wild" Bill Peyto. As tourism in





Canada's west increased, so too did the responsibilities of the wardens. Search and rescue became more apparent, as did trail building and maintenance. A series of backcountry cabins were erected to assist on those long patrols searching for illegal hunters and poachers. Even public relations became more commonplace. Wardens were a remarkably knowledgeable bunch, so visitors turned to them for their expertise of the natural world. Today, law enforcement plays a substantial role in the duties of park wardens, and an increasing amount of their time is spent in the park's most frequented locales, instead of those sought-after remote confines. Although the job description has repeatedly changed, they are still the guardians of our wildest places.

To get a better idea of the work of a modern-day park warden, I reached out to Parks Canada with the hope of securing an interview. As you'll soon discover, I was not disappointed with the results. What follows is an in-depth conversation with a park warden stationed in Banff National Park. They paint striking images with their words, and you'll be transported to some of the

most stunning landscapes this country has to offer. I hope you revel in this profile of one of the most fascinating professions I have had the pleasure of featuring in this column. Enjoy!

Calgary Guardian (CG): "What is your official job title? Are you still called wardens, because terms like *ranger* and *conservation officer* also get used frequently?"

Park Warden (PW): "Our title is park warden. Historically, this title was held by many employees of the Parks Canada Agency whose responsibilities included visitor safety, fire management, law enforcement and ecological monitoring. About 10 years ago, functions became far more specialized, and now only those working with Parks Canada in law enforcement hold the park warden title.

CG: "Have you always worked in Banff National Park, or were you previously in other national/provincial parks?"

PW: "I've worked in several resource enforcement and resource management positions with other government agencies prior to my current position with Parks Canada. There are so many fascinating places to explore in this country and so many interesting communities to work in. I've fought fires in Quebec, trapped bears in Manitoba for research and monitoring purposes, pursued sheep poachers in Alberta, attended training in Ontario and Saskatchewan, and pulled noxious weeds in British Columbia. Each





position has allowed me to support good stewardship of our country's natural resources."

CG: "Why did you want to become a park warden?"

PW: "I am continually astounded by nature. The intricacies and adaptations of every plant, fish, bird and animal on our landscapes are incredible. The views are also spectacular. I strive to protect the natural environment through education, prevention and enforcement so that our generation and those to come can enjoy it as much as I do. The work is interesting too. There are quite a few mandatory, consistent tasks, but the job is also a new adventure every day! We can tailor our day to the weather, the season, the issues of the day, and our desired mode of transport. This can include patrols by vehicle, bicycle, touring and cross-country skis, boat, helicopter, horse, and of course by foot."

CG: "Are you originally from Alberta? If not, what brought you to this province?"

PW: "I'm not a born and raised Albertan, but I've learned through my many vocations in a variety of

locations that each of Canada's places has its own remarkable uniqueness."

CG: "What type of education/training/certification do you need to become a warden?"

PW: "The educational requirements for the position include successful completion of postsecondary education with a diploma or degree in a field related to conservation, natural resource enforcement, law enforcement, natural resource management or environmental science. Recent experience working in the natural environment in a job related to resource conservation, law enforcement and/or education is also required. Those applying for this position also require several certifications such as first aid."

CG: "What is the best thing about your job?"

PW: "The best things about my job are the people and the landscape. My coworkers here are passionately dedicated to conservation, and the most polite, welcoming, friendly people I've worked with. The natural world is pretty incredible too. I spend a lot of time outdoors, and the mountains, sky and landscapes are different and breathtaking every single day."

CG: "What is one of the most difficult things about your job?"

PW: "In Banff National Park, we receive over 4 million visitors per year. The call volume and workload for the law enforcement park wardens can be very high. Some situations we have to deal with are stressful, and shift work can be tiring. Finding a balance between work and life outside of work, managing responsibilities, exploring new solutions to address ongoing issues, caring for ourselves and supporting our colleagues are all important for long-term success."

CG: "It seems as though wardens wear a lot of different hats during the course of their careers. Could you describe some of the varied responsibilities that wardens have?"

PW: "Our authorities are similar to those of the RCMP; however, our focus is on the Parks Canada mandate. We strive to protect our cultural and natural resources for current and future generations.

Wardens have to be able to hike up mountains and along windblown ridges to patrol the park boundary for hunters, ski for miles carrying a heavy pack in frigid temperatures to check backcountry shelters, slog

through mosquito-infested woods searching for illegal campers, and ride horses through wild country and treacherous terrain to access backcountry sites.

We conduct proactive patrols to detect offences and must be intimately familiar with all of the legislation we enforce to ensure that in each situation we respond appropriately.

We respond to public reports and initiate investigations, collect evidence, and depending on the situation, we engage with suspects, interview witnesses and determine if charges are warranted.

We occasionally lay charges, then carefully compile files and communicate with the Crown prosecutor. We attend court to testify in trials, present evidence and educate the judge or justice on the intricacies of the *Canada National Parks Act* and regulations.

We encounter people experiencing social and mental health issues, and must respond effectively to each person and event, acting in a calm, fair and professional manner no matter how we are treated, always ensuring the rights of that person are protected in accordance with the law. We may deal with people who have a history of violence, active warrants or who possess weapons or drugs, while ensuring our, and the public's, safety.

We act as an information source to the public, providing directions to the nearest washroom, identifying flora and fauna and explaining the biology of it, or educating visitors on how to keep a clean campsite that does not attract wildlife.

We work days, nights, weekends and statutory holidays, sometimes at the expense of our families and

social life because we firmly believe in protecting our resources. Being a park warden isn't 'just a job,' it's simply our way of life. The work is always varied and interesting."

CG: "After hearing all of that, I am positive that a 'normal' day doesn't exist in your line of work, but could you provide a rundown of what a typical day at the office might look like for you?"

PW: "Great question! The best part of this job is the unknown. Every day is different, and we can't predict what might happen next! We do try to focus on current closures or restrictions, parking issues, areas where people frequently illegally camp, or areas where hunters might enter the park, depending on the season. A day could be filled with bushwhacking around the townsite to locate illegal campers, checking anglers to ensure they have proper licenses, interviewing visitors involved in an accident, stopping a vehicle exceeding the speed limit, flying or riding horses to the park boundary to check for hunters, skiing to backcountry shelters, biking to mid-country campsites to check permits, dealing with people who have left garbage and attractants that wildlife feed on, taking the stand in the court room to testify, providing presentations to new staff, and, of course, trying to finish all the paperwork that goes along with these adventures."

CG: "What is one of the most memorable experiences you've had while on the job?"

PW: "There are so many! My favourite days are during the fall when we conduct nine-day backcountry boundary patrols looking for hunters. A typical scene



would be a warm fall day with deep blue skies, listening to the creak of my saddle as I ride my horse through an old forest fire. The skeletons of burned trees shine silver and bronze where the blackened bark has peeled off. The bog birch and willow leaves are an array of bright red, orange and yellow, and the fluff from fireweed seeds floats through the air. Hundreds of sheep graze along the alpine slopes above me, and I'm following a trail that's been beaten into the ground by centuries of travellers, observing the tracks of elk, bear, wolves and marten that have passed before me. Golden eagles circle above as they make their way south along migratory routes while a bull elk's bugle echoes through the valley. Moments like these rejuvenate me after a summer of dealing with illegal campers and dogs off leash."

CG: "I'm not asking you to give away any of your top-secret locations, but do you have a favourite place in Banff National Park? What makes it so special?"

PW: "There are some special places that are easy for the public to access. A simple 10-minute hike up to the bottom of Cascade Falls offers an easily attained, lofty view of the Bow Valley and townsite. A bike ride or walk along Vermilion Lakes road delivers incredible mountain panoramas that are reflected on the water, and a plethora of bird species are evident throughout the summer months. In the winter, herds of elk or packs of wolves travel across the ice. A tour of the Bow Valley Parkway, the golf course, or up to the Mount Norquay Road viewpoint almost always provide wildlife viewing opportunities."

CG: "I know Banff is enormous, but is there a place in the park you haven't been to that you'd really like to see? If so, where is that?"

PW: "Banff National Park is 6,641 square kilometres with endless opportunities to explore. My duties typically keep me in the vicinity of the Bow Valley and the townsite, which is where the majority of the visitors are. We have backcountry patrol cabins located throughout the park, approximately one travel day apart. I've been to several of these but there's so many left to explore. Parks employees have been using these cabins and the trails in between since Banff's inception, but trails and campsites date back more than 10,000

years. It's fascinating to travel to these places that have been used for so long."

CG: "Is there any advice you'd give to someone who might be interested in a career as a park warden?"

PW: "I'd encourage them to meet a warden! We are based in parks across Canada and are always keen to share information about our jobs and employment requirements with those who are interested."

The warden's job is not a seasonal one and summers in our national parks, especially one as popular as Banff, are extremely busy. With that in mind I would like to extend my utmost gratitude to this warden for taking the time to thoroughly answer all of my questions. It goes without saying that this glimpse into the life of a park warden wouldn't have been possible without you, so for that I say thanks! I would also like to thank Carly Wallace, the public relations and communications officer for the Banff Field Unit with Parks Canada, for connecting us. Without that link the above story wouldn't exist. Thank you for all the behind-the-scenes work to make this a reality.

For all relevant information about Parks Canada, please visit their website. You can also connect with them on any number of social channels, such as Facebook, X, Instagram and YouTube. Banff National Park also has their own specific social accounts on Facebook, X and YouTube for you to follow. *Reprinted with permission from the Calgary Guardian, <https://calgaryguardian.com/wild-jobs-park-warden/>. Originally published October 3, 2019, on the Calgary Guardian website. Minor changes have been made to fit ATA style.*



The Wonder Wagon

Paula Huddy-Zubkowski

Are you looking for a way to engage your students in outdoor learning? Look no further than the wonder wagon! At the Calgary Catholic School Division, we have developed wonder wagons with the early learning team (Lesley Jeannotte and Kayla Lake) and the Instructional Media Centre. The wonder wagon is a portable, easy-to-use outdoor resource filled with loose parts to spark creativity, imagination and play.

So how can you use a wonder wagon to enhance your school's outdoor learning program? Here are a few tips to get you started:

1. Explore the materials inside the wagon: The wonder wagon is filled with loose parts such as spoons, muffin tins, buckets, shovels, wood cookies and other items that can be used in various ways. The materials can be anything that can be used to provoke and promote playful exploration. Take some time to explore the materials and encourage your students to do the same. Discuss the different items and brainstorm ways to use them to create new games and activities.
2. Encourage creativity and imagination: The beauty of the wonder wagon is that it encourages students to use their imaginations and problem-solving skills to create new and exciting games. Encourage your students to come up with their own ideas and see where their imaginations take them.
3. Use the materials to support learning objectives: While the wonder wagon is designed to promote outdoor play and creativity, it can also be used to support learning objectives. For example, you could use the materials to teach math concepts, such as measuring and counting, or to explore science topics, such as forces and motion.
4. Supplement the kit with your own materials: While the materials in the wonder wagon are carefully chosen, think creatively about what you could add to your wagon. Think sustainably and use your own recycled goods, or ask families to contribute by donating muffin tins, spoons, tarps, measuring cups and the list goes on.



Travelling Wonder Wagon

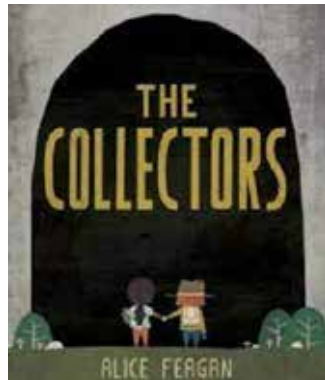


School Wonder Wagon

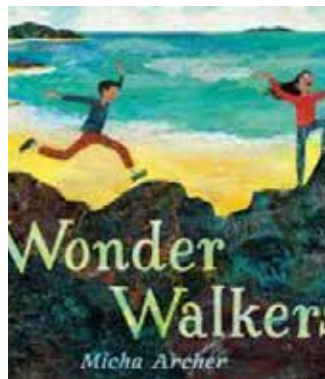
The wonder wagon is a powerful tool for promoting outdoor learning and play, and it's important for every school to have access to one. Our school division will be providing wagons, so all students and educators can seamlessly learn and play outdoors, and promote student well-being, academic performance and physical health. We make sure to include books in the wagon for provocation with students. Here are a few popular titles we have added:

The benefits of the wonder wagon go beyond just having fun. The flexibility and ease of access that the wagon provides can also help schools overcome challenges associated with outdoor learning, such as transportation and storage. So why not build a wonder wagon for your school today? With a little creativity and imagination, you can create a resource that will enhance your school's outdoor learning program and provide your students with an unforgettable authentic learning experience.

To learn more about wonder wagons, connect with us on X @littlephz @k_lake11 @LesleyJeannotte.



The Collectors,
by Alice Feagan
Toronto: Kids Can Press,
2021



Wonder Walkers,
by Micha Archer
Toronto: Nancy Paulsen
Books, 2021



Finding Wild,
by Megan Wagner Lloyd,
Abigail Halpin
(illustrator)
New York: Knopf Books
for Young Readers, 2016

Walk Wednesdays

Carissa Esau



Walking has become a unique and precious time of connection and community building.

What started as a simple strategy to get my junior high classes outside has become a beautiful time of community and connection.

At the beginning of October, I introduced my classes to Walk Wednesday. Every Wednesday, my science class puts on their jackets and winter boots, and we walk around our school's neighbourhood. The first Walk Wednesday was met with some junior high attitude, resistance and some annoyance about leaving their cozy desks. As the weather got colder, students were reminded to bring their warm jackets, boots, gloves and toques. Parents were reminded to encourage students to dress for the weather. When students realized that a walk would happen every week, they learned to come prepared and eventually started to look forward to the break outside.

Walk Wednesdays have become a regular part of our classroom routine. Students ask every Monday, Tuesday and Wednesday morning if our walk will happen. Due to a few snowstorms and extreme cold weather, we moved a couple walks to Thursday. Students were sincerely disappointed when we rescheduled our walks, and they worked hard to convince me that -25° and blowing snow were not too much for them to handle. They argued that they were prepared and that Walk Wednesday should not be

meddled with. Whether they are excited to be outside, leave science class behind or have time to connect with their friends is sometimes hard to tell.

Walk Wednesdays were initially an easy way to incorporate the outdoors into my teaching routine, but it has become a unique and precious time of connection and community building. Every week new students find their way to the front of our group to chat with me. One student and I chatted for the entire walk about her upcoming swim meet, her apprehensions and excitements, her favourite swimming strokes and her training. One Wednesday, a student told me about her parents' divorce, the broken furnace at her house and her favourite television shows. Another student told me about their family in Ukraine, their journey to Canada and the challenges of immigrating to a new country. Walk Wednesdays have become a sacred time of connecting with students in a way that isn't always possible in a classroom, and I so cherish those conversations.

I watched students connect with new peers during our walk. When they walk outside, without the distraction of school work or phones, they have the opportunity to interact with so many more of their peers in an authentic way. Our walks have become a beautiful time of community building made possible by students' participation.

Walk Wednesdays have confirmed my belief that the outdoors is one of the most beautiful and intentional ways to build authentic connections with students. Looking forward to many more #WalkWednesdays!



A Lens on Literacy: Magnifying the Potential of Exploration

Students at Lois E Hole School in St Albert, Alberta, use basic tools to create images of nature while developing oral and written language skills.

Abi Henneberry

“Wow! It’s like a whole new world in here!” exclaimed a Grade 3 explorer on a nature walk with his grade-alike partner and their kindergarten cross-age buddy using magnifying glasses outdoors for the first time. Students in kindergarten and Grade 3 were first instructed on the basic use of magnifying glasses to investigate environments they saw from a macroscopic perspective during daily outings at school. They were encouraged to become curious detectives of discovery, investigating the tiny worlds that exist literally in their own backyards and neighbourhoods. The initial activity grew from simple visual exploration to recording their experiences through drawing, oral language and descriptive writing, creating a visual display for the school. The process and the results revealed much about the connection between curiosity, observation, interpretation, representation, oral language and how descriptive writing can develop through inspiration, discussion and practice.

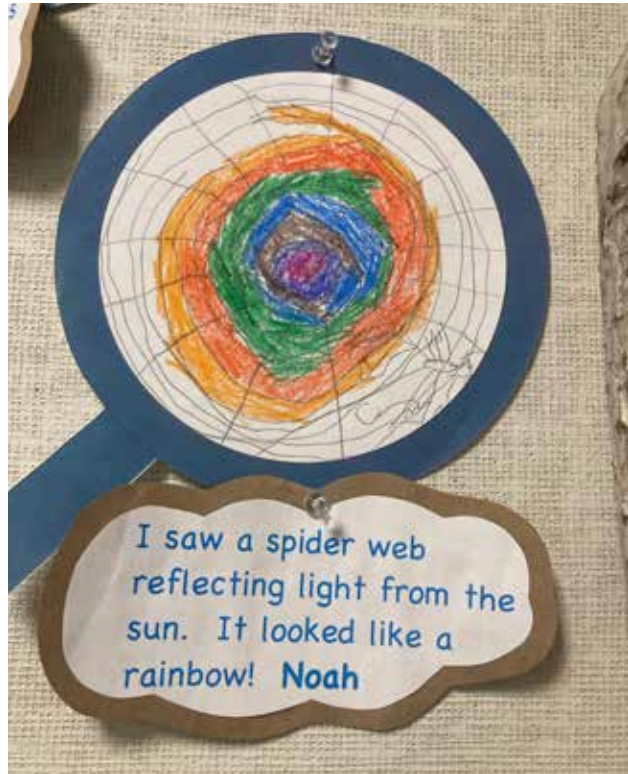
As we revisited our drawings and repeated the activity outside, we realized there was much more to our observations than we originally thought! We discussed how a very basic and somewhat dry statement could be enhanced, and made much “juicier” by adding more descriptive words to make the pictures come alive. “I saw a brown stick,” for example, became “I saw an old, crooked, brown stick” and grew to “I saw an old, crooked brown stick covered with dry, crackly grey and black bark that was falling off.” Children became excited about adding meaningful words and began to read them back to us

with dramatic expression as they became excited about the pictures they were painting with words and art.

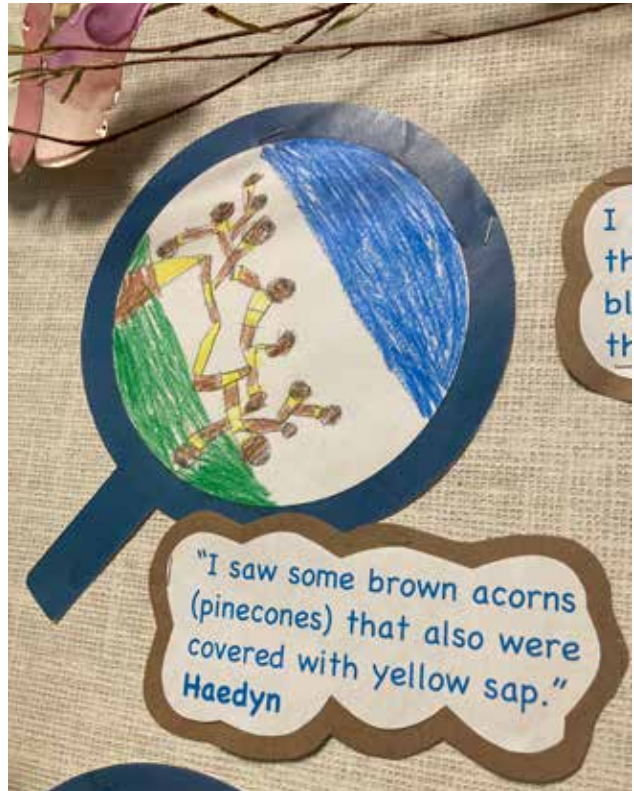
The growth in confidence using oral language that this endeavour created was remarkable! Children enjoyed taking ownership of their observations and strove to find more things to observe with each outing. This began with kindergarten students and grew to a cross-age buddy project involving kindergarten children with their Grade 3 buddies. Witnessing the interactions between the older and younger students was also telling, as the older ones were called on to set an example and work to encourage their younger counterparts. The enthusiasm that ensued both outdoors and inside was contagious, and it is hoped that this work in progress will inspire others to try this simple, inexpensive land-based activity to connect students with the natural world in all four seasons while honing skills in art, literacy and scientific investigation!



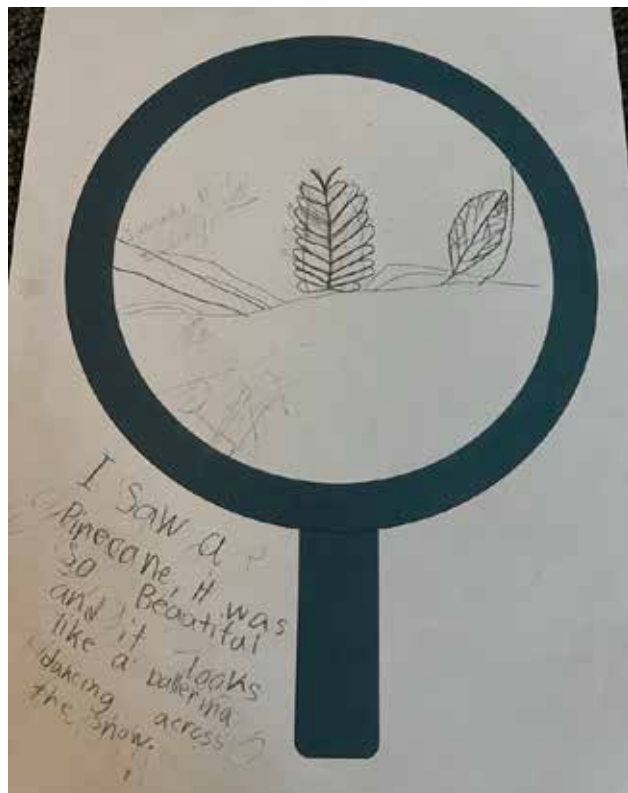
A berry begs concentration when isolated on a picnic table.



A tremendous exhibit of perspective and interpretation!



Drawings become more intricate with time!



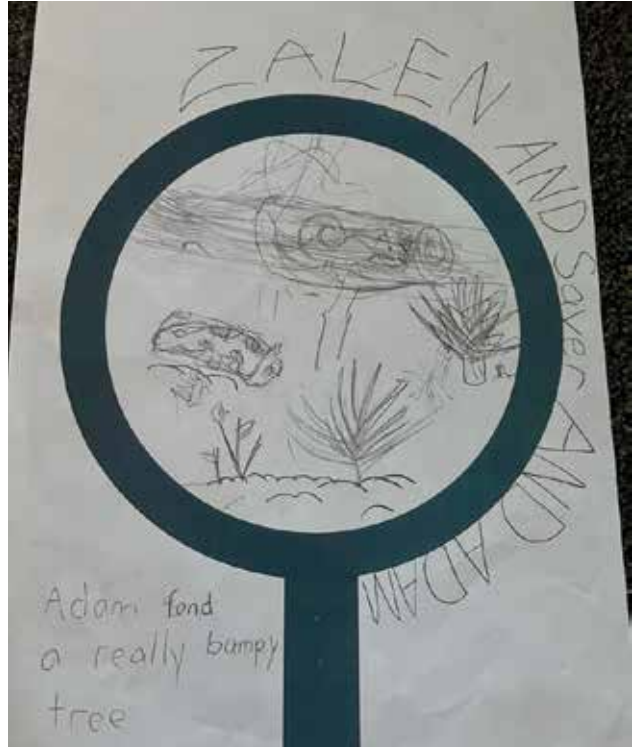
A vivid image is inspired by nature and captured beautifully in words.



Emma discovers her fingerprints as well as a pine cone's surface.



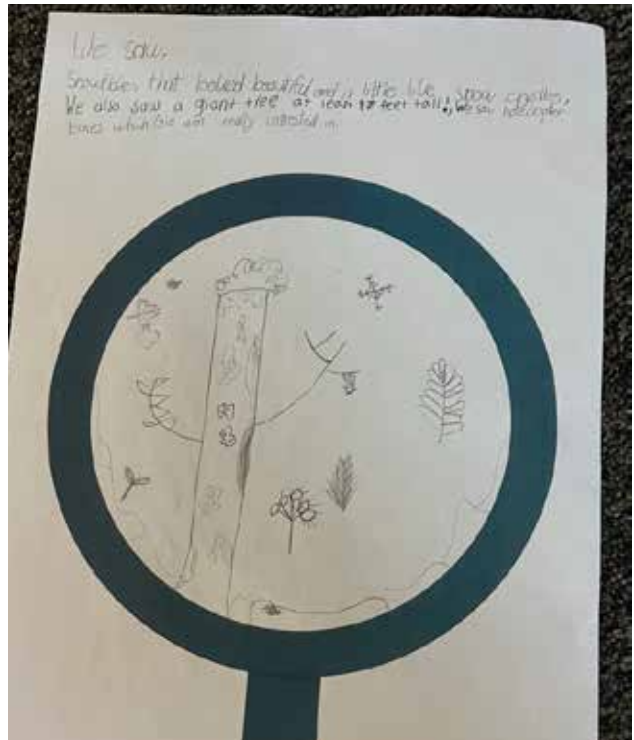
Everyone is excited about a hole in the ground and spiders in the grass!



Grade 3 buddies helped a kindergarten friend find his voice with their encouragement during cross-age activity time.



Evidence of animal presence helps children learn that the environment is shared with many living beings.



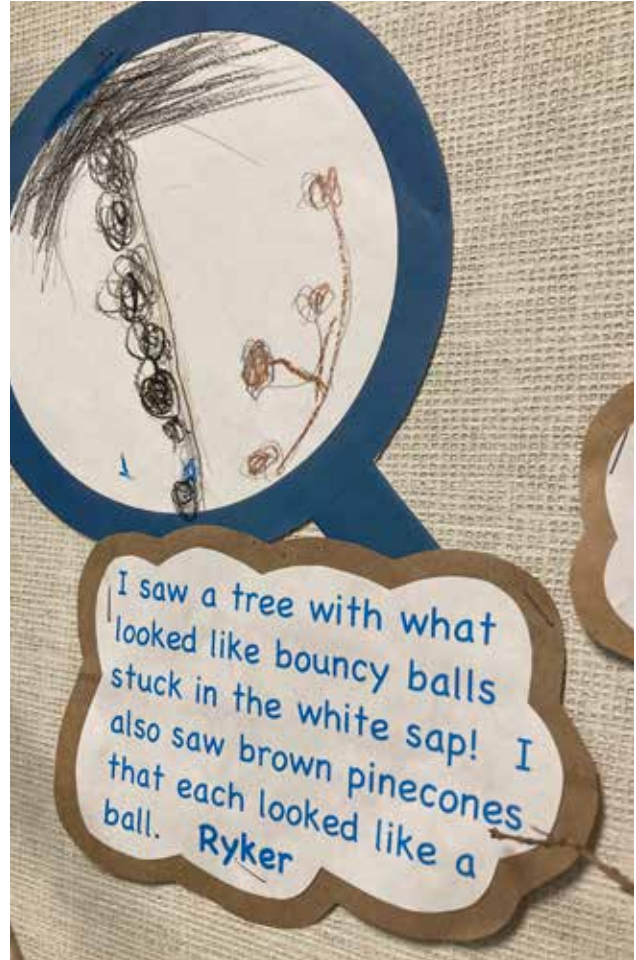
Grade 3 buddies introduce a kindergarten buddy rich language on reflection of their forest outing together.



Final evidence of curious investigation is shared with the school community!



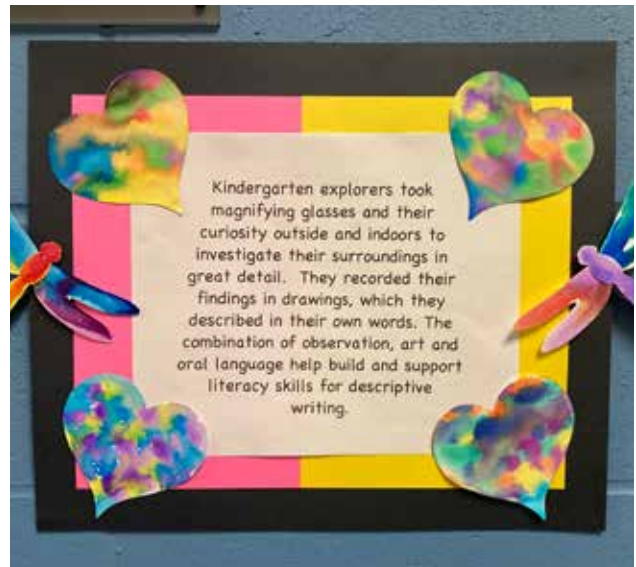
Illustrations provide rich opportunities to assess observation skills, as well as provide impetus for developing descriptive language.



It's exciting when children begin to "see" things differently.



Isolating a specimen on a flat surface minimizes distractions and provides an opportunity for more focused observation.



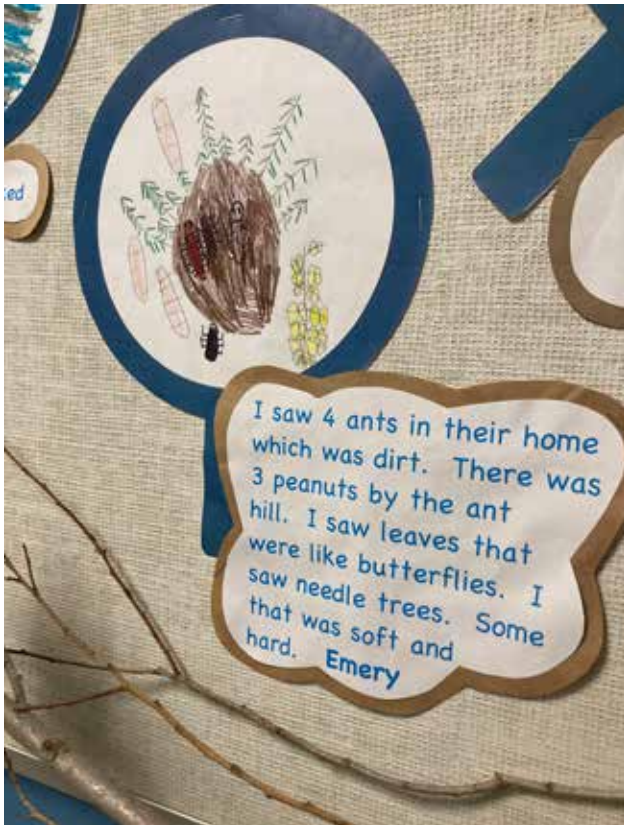
It's important for observers to understand the significance of early learners' efforts.



Learning to use tools properly is a key component of building observational skills.



Proper understanding and use of tools are essential for successful project outcomes.



More and more details emerge, and students' words are recorded exactly as they are spoken to reflect individual expression.



Respectful use of tools and careful handling of specimens helps children develop a variety of perspectives.



Students begin with simple depictions and descriptions of their observations.



This is an all-season activity.



The tools of the trade.



William demonstrates excellent command of a steady hand, so important for clear observing!

Promoting a Sense of Place for Children in Natural Areas

Glen Hvenegaard

Childhood experiences in nature play a key role in developing positive environmental attitudes and behaviours in adults (Wells and Lekies 2006). However, children are losing opportunities to make meaningful connections with the natural world, due to urbanization, dwindling natural spaces and a fear of the outdoors (Louv 2005). At the same time, children have alternative access to nature through electronic media, many competing demands for their time and parents who are increasingly safety conscious (Charles et al 2008). Thus, children fail to develop a sense of place in the remaining natural areas.

Why Is Sense of Place Important?

Sense of place suggests an emotional attachment between people and a location or area (Williams and Stewart 1998). Other terms have been used to explain this relationship. For example, *geopieté* means a human relationship with place that is characterized by reverence, pity, compassion, affection, gratitude, respect and reciprocity (Tuan 1976). Alternatively, *topophilia* suggests strong affective ties between humans and places (Tuan 1974). Regardless of the term used, sense of place requires first-hand interactions in which children are able “to love the places [they] can see, touch, smell, and experience” (Orr 2004, 147).

Why should teachers promote children’s sense of place through outdoor experiences in natural areas? First, from a *classroom perspective*, this approach can improve children’s academic achievement. An American study showed that students in schools with place-based education had higher scores in reading, mathematics,

science and social studies (Sobel 2005). Students were able to “do science” (p 28) rather than read about science. Moreover, as students were more engaged in learning, there were fewer classroom discipline problems.

Second, from an *environmental perspective*, place-based education can increase stewardship of local natural and cultural features. People who are emotionally attached to places, especially because of regular interactions in nature with adult mentors, will act to protect those places (Kaltenborn and Williams 2002). With a sense of place, children view that place as a set of *relationships*, rather than as a set of *things* (Hay 1992). In turn, as adults, they will manage resources in the context of *communities*, rather than *commodities* (Rolston and Coufal 1991).



Discovery of small creatures helps create new types of bonds with nature.

Third, from a *health perspective*, outdoor activities in nature are recognized as being critical to normal childhood development (Louv 2005). Moreover, children and teachers who have regular access to green spaces have less stress and recover faster from mental fatigue (Charles et al 2008). Children in a Scandinavian “Outdoors in All Weather” program had 80 per cent fewer infectious diseases than children in regular indoor programs (Sobel 2005).

Fourth, from an *awareness perspective*, Wendell Berry says “You can’t know who you are until you know where you are” (quoted in Harwell and Reynolds 2006). Having a sense of place in the natural world and how it shapes us is critical today as many environments are undergoing rapid change, and as most children are losing direct connections with nature. Sense of place will encourage deeper awareness of ourselves, natural features and processes upon which human survival depends.

Last, from an *intrinsic perspective*, developing a sense of place allows us to respond to our natural tendencies. *Biophilia*, literally a *love of life*, is an innate need for human beings to affiliate with other living beings (Kellert and Wilson 1993). Teachers should capitalize on this natural love of life and desire for learning by, for example, incorporating outdoor field trips and projects on wild animals into the curriculum.

How to Develop a Sense of Place in Children

Children can develop meaning in natural places in many ways. Brooks, Wallace and Williams (2007) identify four key contributors to sense of place. First, children need physical interactions in a place. These interactions can include spontaneous play or ritualized activities, but a longer history with a place encourages deeper connections. Second, social interactions in a place include any type of shared experience with others, such as family members, friends or teachers. The shared experience encourages different types of interactions, a collective memory of the activities and a reason for future discussion of those activities. Third, physical interactions with a place include, for example, sensory contact and lessons learned from good and bad experiences. Children especially want tactile experiences,

such as digging dirt, smelling flowers or building forts. Finally, satisfaction about a place suggests feeling good about one’s time there; positive memories of that place and time enhance one’s attachment to place.

In designing nature experiences for children, David Sobel (1996) encourages teachers to consider a child’s stage of development. He suggests that we should develop in children a sense of awe for nature before a sense of concern about the fate of nature. “If we want children to flourish, to become truly empowered, then let us allow them to love the earth before we ask them to save it” (p 39). Thus, for children aged 4–7, teachers should promote empathy with the natural world; for example, through activities that emphasize animals (eg, imagination through dress-up or imitation). On outdoor field trips, connection is primary, whereas proper identification of natural features is secondary. For children aged 8–11, teachers should focus on exploration of the natural world by emphasizing, for example, stream courses, pathways and forts. For children aged 12–15, the emphasis can shift to social action, so that teachers can build on each child’s increasing feeling of connectedness and responsibility to the world. Projects could include recycling, reclamation, contributions to community decisions or whatever local opportunities arise.

Sobel (2008) recognizes seven key principles of children’s interaction with nature. Teachers should take advantage of these tendencies in developing teaching plans and projects to promote sense of place for children. With a little imagination, the applications are endless.

- *Adventure* suggests excitement, novelty and action, all of which develop interest in and connection with a place.
- *Fantasy and imagination* promote creative play, deeper understanding of abstract concepts, a sense of purpose and fun. Isn’t that what children want most?
- Encouraging interactions with *animal allies* can [create] empathy for the natural world. Children can imitate, anthropomorphize, and play with animals, both real and imaginary. What a great way to develop love and caring.
- *Maps and paths* allow children to explore their local areas in meaningful ways.

- *Special places*, such as forts, are important places in which children can hide, socialize with friends and retreat from the “other” world. Special natural places can help develop children’s desire for sustainability.
- *Small worlds*—children are intrigued by miniature worlds and microscopic organisms. The fragility of small worlds can enhance children’s concern for sustainability.
- Our natural desire for *hunting and gathering* promotes attention to detail and takes us back to our primitive past and the excitement of discovery.

Conclusion

Developing a sense of place is important for childhood development and adult concern for the environment. Teachers and parents have important roles to play in providing time and space for children to interact with nature in ways that are natural to them and that develop meaningful connections. We should follow research-supported design principles that build on children’s natural tendencies toward play and the natural world.

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Glen Hvenegaard is an environmental studies professor at the University of Alberta’s Augustana Campus, in Camrose, Alberta. He is a father of two young boys, helps lead community conservation projects and is developing a sense of place in the local aspen parkland natural region.

June 2023 update: It has never been more important for children and for adults to develop a sense of place. The relationships we develop with nature will shape our current and future decisions about the state of the planet, such as changes in our climate, biodiversity and the quality of our soils, water and air. We can enhance our sense of place by immersing ourselves in nature, using all of our senses, focusing on nature (noticing, appreciating, identifying and connecting), playing games, taking on projects and sharing with others. By connecting to and celebrating nature, we develop a sense of stewardship to care for its future.

This article previously appeared in Connections, Volume 30, Number 1, Winter 2009.

Featured Resources

If Rocks Could Talk—What Would They Tell You?

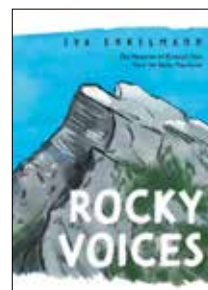
Eva Enkelmann

As a geologist, I am trained to listen to rocks and their stories. These earth stories are fascinating, adventurous and dramatic as rocks go through many changes over their millions-of-years' long lives. In my research, I study how mountain ranges, such as the Himalayas and the Rocky Mountains, form and decay over time. Naturally, I find the evolution of mountains fascinating, particularly the processes at work deep below our feet and those right in front of us on the surface. However, earth processes are slow when measured in human lifetimes and therefore are hard to grasp. As a result, the public's knowledge about earth science is dominated by hazardous news of volcanic eruptions and earthquakes, or the societal needs and environmental challenges related to the extraction of natural resources. But earth science has more headline-worthy stories.

My passion for being outside, seeing nature and understanding how the world works, led me to write *Rocky Voices: The Memories of Minerals That Form the Rocky Mountains*. This nonfiction roadside geology for young adults includes short stories that are set at different locations in the Canadian Rockies. Instead of using my professor voice, I decided to let the minerals voice their own stories. These minerals tell their dramatic stories of adventure and heartbreak of where they came from to how they ended up in the Rockies today. Each chapter starts with a picture that shows the scenic location and where the character sits. A QR code easily provides you with driving directions on your phone. Each of these locations are accessible and have picnic

tables and hiking options. I use storytelling to explain scientific processes in a way that is both entertaining and connects with people emotionally, all while avoiding technical jargon. Some basic science terms that are used are explained at the end of each chapter.

I invite you to check out some of these locations. I think this book is a great resource for science educators and offers suggestions for locations to visit with groups, families or just yourself. The book is available on all major online retailers such as Amazon or Indigo, and the eBook can be found on all platforms. Selected bookstores in the Rocky Mountains and Calgary have the book on shelf. If you want to connect with me about the *Rocky Voices* or speaking engagements, please check out my website: www.enkelmann.org/rocky-voices.html.



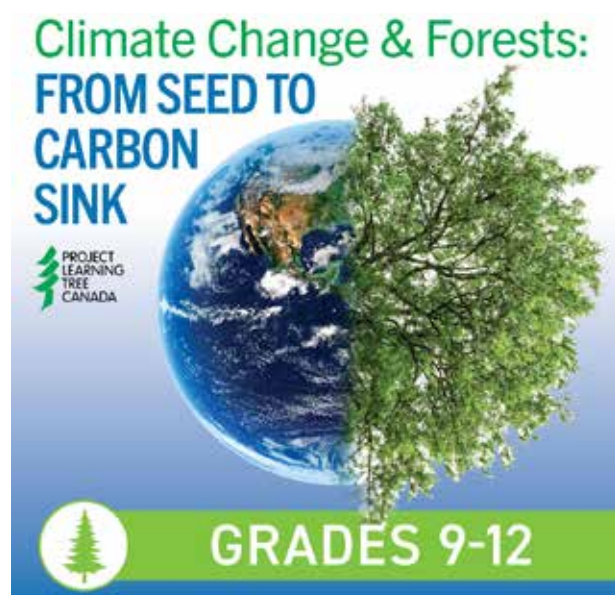
Eva Enkelmann is a geology professor at the University of Calgary. She was born and raised in Germany where she studied geoscience at the University of Freiberg. She worked at several universities in Germany and the US before moving to Calgary in 2017. In her spare time, you can find her in the mountains skiing, hiking or climbing together with her partner Brian.

Inspire High School Students to Take Climate Action with New Online Educational Resource

Danika Strecko

Climate change is one of the biggest global challenges, which is why it's so important to prepare the next generation of citizens and conservation leaders with the knowledge, skills and motivation to take an active role in working toward a more sustainable future. Canada has committed to climate action, with all provinces and territories, recognizing the importance of climate change education in schools. However, a recent survey showed that "only 34% of educators feel they have the knowledge and skills needed to teach climate change and require more training, resources, and support for climate change learning" (LSF 2022).

Educating the Next Generation



Project Learning Tree Canada is committed to providing educators with the resources they need to teach about climate change and forests.

Project Learning Tree Canada (PLT Canada) has developed a new online educational resource, *Climate Change and Forests: From Seed to Carbon Sink*, to teach high school students about how sustainably managed forests are among one of the most important tools for addressing climate change. This knowledge will help empower youth to take action, reduce climate anxiety and prepare them for a changing world.

The resource includes eight activities for educators working with Grades 9–12 students and is designed to empower educators to engage learners in inquiry and place-based learning. Each activity encourages student engagement through thought-provoking questions, brainstorming and team projects. In addition, students will learn about climate change at the macro and micro-level, focusing on global impacts as well as implications on local forests.

1. Climate Change and Forests—This activity presents students with a global perspective on climate change causes, effects and solutions, and introduces the role of forests in regulating the earth's climate and increasing resilience to the effects of climate change.
2. Carbon Footprints and Forest Solutions—This activity introduces students to the concepts of carbon footprints and carbon dynamics, with a focus on how these relate to forests.
3. Climate-Smart Forestry—Students learn about sustainable forestry management principles and practices that can help fight climate change, boost carbon sequestration and enhance forest resilience.
4. Indigenous-Led Solutions to Climate Change—This project-based activity focuses on Indigenous-led



Climate Change and Forests: From Seed to Carbon Sink includes eight engaging activities to do with high school students.

conservation as an integral part of climate change solutions.

5. My Local Forest and Climate Change—In this activity, students zoom into the Canadian context of climate change and the implications it will have on local forests and the forest sector.
6. City Forests and Climate Change—This activity focuses on the benefits of urban forests for addressing climate change and is well suited for groups of learners in cities and towns.
7. Forest Careers for Climate Action—Students will learn about environmental careers related to the forest and conservation sector that contribute to climate change mitigation and adaptation.
8. Climate Action for Forests—Students explore what they can do to help tackle climate change and help forests in their communities. Then focusing on a specific problem of their interest, students will embark on a service-learning project to create positive change in their community.

Designed with Flexibility in Mind

Educators can use individual activities as stand-alone investigations or move through the unit’s

activities from beginning to end. In addition, you may incorporate it into other units of study related to a broad range of subject areas.

What’s Included



With helpful sections—Overview, Background, Doing the Activity and Tools—each activity is easy to navigate and has everything educators need at their fingertips.

STUDENT PAGE: Lowering Our Carbon Footprint

NAME _____ DATE _____

Lowering Our Carbon Footprint

Actions to reduce our collective carbon footprint can take place at the individual and collective levels. While some actions can take place at the individual level, others are only possible with support at the community or systemic levels. Read through the sample actions below and identify the different levels at which that action can happen. You can also add more actions to the list.

Action	Individual	Community/ Neighbourhood/ City	Country
Example: Reducing meat consumption	✓		
Example: Walking, biking, or taking public transportation more often	✓	✓	
Example: Utilising energy sources that have a lower carbon footprint		✓	✓
Replacing plastic with paper products			
Buying paper products from sustainably managed sources			
Planting suitable trees			
Switching to an electric vehicle			
Doing shorter trips or fewer long-distance trips			
Reducing energy consumption			
Buying locally sourced and seasonal foods			
Reducing food waste			
Buying second-hand products			

Career Corner

SUSTAINABILITY MANAGERS
ensure that an organisation, school, or company upholds environmental standards and minimises environmental harm. For example, they might help an organisation switch to using certified paper products that come from sustainably managed forests.

© Project Learning Tree Canada | Climate Change & Forests: From Seed to Carbon Sink

Each activity includes printable student and teacher pages.

The e-unit includes digital access to all the information needed to teach the lessons, including

- educator background information (containing curated videos and infographics);
- preparation instructions;
- connection to curriculum standards;¹
- material and time requirements;
- step-by-step instructions for leading each activity;
- copyright-free teacher and student pages;
- assessment suggestions (including Kahoot quizzes, pre-assessments and assessment rubrics);
- enrichment ideas; and
- links to additional resources.

To purchase this e-unit to use with your students, visit the PLT Canada shop at www.pltcanada.org/climatechange.

For more information about PLT Canada and educational resources, visit pltcanada.org.

Additional Climate Education Resources

PLT Canada cohosted a virtual Climate Generation Summer teacher cohort July 17–21, 2023, with the Alberta Council for Environmental Education, to help empower teachers throughout Canada to confidently teach about climate change through advanced content knowledge and high-quality resources. To learn more, visit <https://climategen.org/summer-institute/>.

Note

1. Project Learning Tree Canada. *Curriculum Connections for Climate Change and Forests: From Seed to Carbon Sink*. https://pltcanada.org/wp-system/uploads/2023/04/SFI_PLT_CarbonClimateForests_Teacher-CurriculumConnections_final.pdf (accessed August 24, 2023).

Reference

Learning for a Sustainable Future (LSF). 2022. Canadians' Perspectives on Climate Change and Education: 2022. <https://lsf-1st.ca/research-policy/survey/> (accessed August 23, 2023).



Danika Strecko is the senior manager, Education, for Project Learning Tree Canada. She plays a central role in PLT's education and career pathways work, leading development of cross-border educational materials and programs and expanding PLT's education work in Canada. Danika leads implementing the Project Learning Tree Canada Forest Literacy Framework and expanding the reach and engagement of youth in environmental literacy, stewardship and career pathways. Danika is motivated to build a new generation of leadership that will take responsibility for solving environmental challenges and is empowered to take actions that benefit forests and all of us. Danika is a BC Ministry of Education certificated teacher and holds a bachelor of education from the University of British Columbia. She is working toward a master of educational technology from UBC. Outside of work, she enjoys Vancouver's access to nature by hiking, kayaking and snowboarding.

Inside Education: K–3 Explorer Tool Kit—Division I Takes Curiosity Outside!

Abi Henneberry



Most *Connections* readers will already be familiar with an Alberta provincial treasure, Inside Education. This organization is once again being featured in our journal for creating yet another timely resource for educators. The inception of the K–3 Explorer Tool Kit was the brainchild of elementary school teachers and GEOEC, who collectively approached Inside Education with the idea of creating an outdoor learning resource specifically for Division I (K–3) educators and students. Inside Education sprung to action immediately, inviting teachers and GEOEC members to a brainstorming/information meeting to gather ideas for exactly what items were needed for both less experienced and seasoned outdoor educators to explore learning outdoors with young students safely, enjoyably and successfully.

Natalie Graveline has been associated with Inside Education for five years, and her first experience with GEOEC involved taking part in the creation of the K–3 Explorer Tool Kit. “During COVID, we pivoted toward creating tool kits for forestry, water and energy learning, but the broader, more generalized outdoor learning Explorer Tool Kit is a new concept,” she relayed in an animated conversation. Natalie is still clearly excited not only about the concept and the finished product, but also the enthusiasm with which it has been received. “Only 100 kits were produced, 50 of which are already gone,” said Natalie in January 2023. The remaining tool kits are not part of any specific PD, though the first ones were given to teachers who attended early launches of the product at PD events in Calgary and Edmonton in September 2023. The remaining kits will be distributed at future gatherings.

When asked if the kits are going to be produced for sale, Natalie was adamant, “These kits were designed to serve as a model from which individuals could build their own kits, as an inspiration, an impetus for people to create their own collections of useful materials. I am indeed adamant that we won’t make more to sell partially because it serves as a model for folks who want to make their own, but also because our classroom resources are always developed to be given away for free! The kits we made consist of items that may be found easily at local stores, and much of the print material is available online for downloading and reproduction. Everything was developed in house by Inside Education: the activity book, the PDFs, the

Featured Resources

riddles and the Cree language cards. All topic areas in the materials remain relevant to current curriculum, and the activities are easily adaptable to accommodate a variety of student needs. We are really pleased that the kits have been so well received!” The remainder of these kits that are still with Inside Education are going to go to GEOEC for distribution at select events!

I can substantiate the efficacy of this resource from my experience with a portion of the activities in the activity book included in the kit. One section of this publication provided a full day of enjoyment for nearly 100 kindergarten students with Grade 5 leaders at a wilderness learning centre in autumn 2022. This resource was the central planning tool used for a similar adventure in June 2023. Not only does it help plan large events, it is also a key component in regular daily activities with students outdoors in the schoolyard and surrounding environments.

The K–3 Explorer Tool Kit was created to be housed in a lightweight backpack with contents pictured in the accompanying photos.

For more information please see www.insideeducation.ca/uploads/source/reports/2022/K-3_PD_Report.pdf. Please contact Natalie Graveline, Inside Education, at ngraveline@insideeducation.ca for more information, or visit the Inside Education website.

The resources for the tool kit can be downloaded from www.insideeducation.ca/learning-resources/k-3-outdoor-explorers-tool-kit-85/.



Kathryn Wagner, from Inside Education, leads teachers through an activity included in the K–3 Explorer Tool Kit



Natalie Graveline, from Inside Education, explains the contents of the K–3 Explorer Tool Kit in detail to teachers participating in a professional development event in Edmonton.

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
 \$25 Regular Membership
 \$30 Subscription
 \$10 EECOM Membership (in addition to GEOEC membership)
 Free Student Membership

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.

Publishing Under the *Personal Information Protection Act*

The Alberta Teachers' Association (ATA) requires consent to publish personal information about an individual. Personal information is defined as anything that identifies an individual in the context of the collection: for example, a photograph and/or captions, an audio or video file, and artwork.

Some schools obtain blanket consent under *FOIP*, the *Freedom of Information and Protection of Privacy Act*. However, the *Personal Information Protection Act (PIPA)* and *FOIP* are not interchangeable. They fulfill different legislative goals. *PIPA* is the private sector act that governs the Association's collection, use and disclosure of personal information.

If you can use the image or information to identify a person in context (for example, a specific school or a specific event), then it is personal information and you need consent to collect, use or disclose (publish) it.

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Notify the ATA privacy officer immediately of any incident that involves the loss of or unauthorized use or disclosure of personal information, by calling Barnett House at 780-447-9400 or 1-800-232-7208.

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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I am giving consent for myself.

I am giving consent for my child/children or ward(s), identified below:

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I understand that copies of digital publications may come to be housed on servers outside Canada.

I understand that I may vary or withdraw this consent at any time. I understand that the Association's privacy officer is available to answer any questions I may have regarding the collection, use and disclosure of these records. The privacy officer can be reached at 780-447-9429 or 1-800-232-7208.

Signed: _____

Print name: _____ Today's date: _____

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



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