

Environmental Considerations of Outdoor Play

This work acknowledges the Indigenous Peoples and their longstanding relationship with the lands across Turtle Island.



Spending time outdoors is associated with numerous benefits, including healthy physical, mental, and social wellbeing and development (Tremblay et al., 2015). Outdoor play can provide unique affordances, such as facilitating spiritual awareness and character development (Harris, 2016), due to its connectedness with nature, open structure, and the opportunity it provides for free movement and creativity. However, with a societal shift towards screen-based activities and parental concerns about safety, children and youth have been spending less time outdoors (Tremblay et al., 2015).

A major silver lining of the COVID-19 pandemic has been a reignited interest in the outdoors as a source of recreation and play across all ages. The resulting increase in foot-traffic and overuse of natural environments (e.g., green space, parks, land-based and water-based trails), however, has the potential to negatively impact the environments used, adversely affecting plants and wildlife, causing pollution, and disrupting ecosystems and natural landscapes. This poses a challenge for private citizens, childcare providers, health promoters, and environmental stewards alike of how to balance promoting outdoor play time with protecting our natural environments.

Indigenous perspectives have long advocated for environmental stewardship in terms of conservation, prevention, and protection of the land (Hansen & Antsanen, 2018). Applying an Indigenous Two-Eyed Seeing approach – taking the strengths from both Indigenous and Western ways of knowing (Peltier, 2018) – to outdoor play experiences may involve engaging in healthy behaviours that are consistent with meeting recommended healthy behaviour guidelines, while being mindful of the reciprocal, respectful relationship with nature. Organizations such as [Leave No Trace Canada](#) have issued principles to equip Canadians with the knowledge of how to engage in outdoor recreational and physical activities while being respectful of the environment, and groups such as [Scouts Canada](#) and [Girl Guides of Canada](#) have begun to adopt these principles in their activity programming.

There is an opportunity here to bring together Western and Indigenous knowledge systems to address the challenge of how to promote active outdoor play while respecting, preserving, and promoting healthy environments. This is especially important given the wholistic health benefits of outdoor play for children and youth, the value of nature connectedness for fostering lifelong environmental stewardship, (Braun & Dierkes, 2017) and the increasing desire to find ways to meet the [calls to action](#) issued by the Truth and Reconciliation Commission of Canada (e.g., 12th call to action: culturally appropriate Early Childhood Education programs).

Therefore, this resource guide has been developed as an information tool to learn more about the key considerations and principles to be aware of when playing outdoors in our natural environments. Click on the links below for more details:

- [Key Considerations for Practitioners and Professionals](#)
- [Principles for Families](#)
- [Additional Resources](#)

Environmental Considerations of Outdoor Play: Key Considerations for Practitioners and Professionals

Make various types of outdoor play opportunities and settings available, accessible, and inclusive

In general, children who spend more time outdoors tend to be more physically active and less sedentary compared to when spending time indoors (Gray et al., 2015). Some researchers suggest that both the form of play (i.e., structured versus unstructured) and the type of outdoor environment (i.e., built versus natural) may have an impact on the outcomes associated with active time spent outdoors (Johnstone et al., 2022; Lambert et al., 2019; Sando, 2018). Natural and built environments can afford both similar and unique benefits; for example, the subjective value of sliding down a play structure and sledding down a naturally sloping hill are comparable but hyper-local interactions with insects and disappearing/reappearing water features (e.g., puddles, ditches) are unique to natural spaces (Lerstrup & van den Bosch, 2016; Gemmell et al., 2023). It is also important to note that there are distinct considerations for those with disabilities in both built and natural play settings (e.g., physical barriers, sensory elements, social burdens), whereby the accessibility and inclusivity of the environment can be a significant enabler or deterrent to playing outdoors (Sterman et al., 2016). These findings demonstrate the importance of ensuring the availability and use of not only fixed play structures and curated recreational settings, but also having access to natural play environments and loose materials, where possible, in terms of the affordances provided to children and youth of all abilities.

Ease safety concerns and other barriers to outdoor play

[The most recent data](#) show that Canadian children and youth (ages 5 to 17 years) are spending less time playing outdoors. This is particularly evidence among youth in grades 6 to 10, who on average, only play outdoors for 15 minutes per day (ParticipACTION, 2020). This trend has been attributed to a multitude of different factors over time, with some of the leading causes being the perceived risks associated with outdoor settings, such as risk of physical injury or harm, neighbourhood safety, and traffic concerns (Lee et al., 2015). As a result, children and youth are spending more time supervised and in controlled environments such as indoors or in structured activity settings (Tremblay et al., 2015). For example, [one Canadian study](#) reported the findings that parents who placed restrictions on accessing outdoor areas within the community predicted reduced participation levels in outdoor play. This is concerning given the known benefits of risky play - play which involves 'uncertainty, unpredictability, and varying degrees of risk-taking' (Lee et al., 2022) such as playing with sticks or climbing a tree - for promoting

physical health and social competence, fostering creativity and resilience, and reducing sedentary time (Brussoni et al., 2015). Despite [findings](#) indicating that when given the opportunity to choose, children enjoy engaging in risky behaviours in both indoor and outdoor play settings, recent studies support the increasingly accepted notion that parental risk aversion continues to be a significant barrier to children and youth accessing risky outdoor and nature play opportunities.

Increase childhood outdoor education opportunities

Being where children and youth spend most of their weekday daytime hours, a growing body of research has begun to examine the impact of childcare and school settings, as well as education policies and educators' attitudes and perceptions on promoting or preventing outdoor play. [One study](#) found that environmental education, the presence of neighbourhood programming, and play activities, in addition to the availability of nature spaces, have the potential to increase outdoor play, increase bonds with natural elements, and reduce apprehension around playing outdoors. Aligned with these findings, other research suggests that in comparison to simply having access to nature-based schoolyards, children who had access to nature-based activities that were teacher-led in these schoolyards felt that they benefited more in terms of recreation and overall learning (Zhang et al., 2022). Although exposure to outdoor play is evidently important in fostering a connection with nature, educators play a crucial advocacy role in teaching children and youth how to respectfully interact with the environment. [Certain recommended actions](#) have been proposed for schools and educators to best support outdoor playtime for children and youth, including preparing teachers with the skills and knowledge to facilitate outdoor play and learning, increasing designated support resources and workers to assist with the diverse needs and abilities of students when playing outside, and advocating for increased outdoor learning opportunities in schools. Furthermore, these findings suggest that outdoor nature-based education can be beneficial in terms of increasing overall outdoor play opportunities during an otherwise structured, indoor school day.

Foster human-nature connection at an early age through outdoor play

Developing connections to nature and promoting a sense of ecological self at a young age has been shown to help promote a lifelong dedication to environmental stewardship (Moore, 2014). Stewardship behaviours are based on "an intrinsic value for nature [...] instilled through direct and playful interactions" (Cumbo & Iversen, 2020, p. 36), which can help children understand their relationship and position within the natural world. Despite these promising findings, children and youth who are not taught how to respectfully co-exist with nature have the potential to negatively influence the outdoor spaces in which they play. Stripping or

manipulating live branches or trees to create forts, the careless development of new walking or biking paths which has the potential to halt or destroy the growth of plants and vegetation, pollution, and the general disruption of natural ecosystems are all examples of ways in which valuable outdoor play and recreational activities can negatively impact the environment (Boddy, 2020). Given the importance of accessing learning opportunities, engaging in respectful forms of outdoor play, and exposure to nature during childhood for long-term pro-environmental behaviours, it is vital that children and youth have access to holistic age- and ability-based resources starting in their early years (e.g., books, nature programming, movies).

Embrace Indigenous perspectives towards the land in outdoor play policies, programs, and strategies

Respect for nature is situated at the very core of Indigenous culture in Canada. Through first-hand and intergenerational experiences and wisdom from the Land, Indigenous peoples have retained extensive knowledge of local ecology, wildlife conservation, and environmental sustainability techniques (Kutz & Tomaselli, 2019). Specific to outdoor and nature play, the earth provides many of the locations and loose elements used for activities and games, where the understanding, valuing, and respectful use of these features is paramount (Ban et al., 2018; CPHA, 2019; James et al., 2019). The Land is a teacher in Indigenous children's learning, which teaches adaptability, creative thinking, self-regulation, respect for the environment, and promotes holistic health and well-being (Burke et al., 2021; James et al., 2019). Indigenous knowledge systems such as the [Seven Grandfather Teachings](#) convey the guiding values and moral principles that act as foundational pieces to establishing respectful connections – whether it be with people or nature. *Two-Eyed Seeing*, a concept that unifies the complementary advantages of using both Western and Indigenous ways of knowing and being (Bartlett et al., 2012; Peltier, 2018), is a strength-based approach that has great potential for supporting both outdoor play and environmental conservation. This approach could include incorporating Indigenous traditional values in concepts or definitions of outdoor play, promoting the acceptance of Land-based teaching in standard Canadian educational practices, and must always involve extensive collaboration or partnership with Indigenous leaders, knowledge keepers, Elders, and organizations.

See Key Considerations for Practitioners and Professionals Infographic [here!](#)

Environmental Considerations of Outdoor Play: Principles for Families

Embrace, protect, respect, and promote outdoor play

Echoing the [*Seven Principles of Leave No Trace*](#), families should be cognizant of how their time spent playing outdoors might impact their play environment. To avoid any unintentional consequences from outdoor and nature play, it is imperative to:

- acknowledge your reciprocal relationship with the land you play on – beyond the benefits a child receives playing outdoors, respect for nature is key in both Indigenous and Western ecological teachings
 - **Tip:** take the time to reflect – what are some of the benefits you get from outdoor play? How do you take care of our natural play environments?
- respect wildlife by observing them from a distance
- pick up or remove any garbage or waste, including cleaning up after your pet
- leave what you find, including any plants, stones, or other natural elements used for play
 - **Tip:** if you do end up moving or disturbing the natural environment, make sure to put things back where you found them, where possible!
- keep to the designated trails or play spaces and adhere to any signage
- prioritize local outdoor play opportunities over long-distance travel to limit deterioration of highly visited areas and reduce carbon emissions

As a general rule, while trying to maximize our outdoor experience and connection to nature, we want to minimize our impact and protect and preserve the places in which we play, so that we can continue to play and benefit from these settings for years to come.

Take part in community outdoor play and nature play programming

There are increasing amounts of outdoor play programs and nature learning opportunities being developed across Canada, ranging from structured skill-based education to unstructured free play. Many of these programs and resources can help to provide the foundations for participating in outdoor play and incorporate teachings of how to respect the environment. If there is a program available near you, give it a try! If you are not able to access or participate in a formal outdoor play or nature-based program, not to worry. Any respectful form of outdoor play will do, whether it be exploring a local park, tobogganing down a neighbourhood hill, or making mud pies in your backyard, the most important thing is to get outdoor and play!

For some regional examples of types of community-based outdoor play resources and programming, click on the links below:

West Coast

- [Nature Kids BC](#)
- [Parkgate Society Outdoor Play Program - North Vancouver](#)

Prairie Provinces

- [Get Outside! Programs - Nature Regina](#)
- [Nature & Environmental Programs for Children and Youth - EcoFriendly Sask](#)

Central Canada

- [Ojibiikaan Indigenous EarlyOn Program - Toronto, Ontario](#)
- [Andrew Fleck Children's Services - Ottawa Forest and Nature School](#)
- [Out to Play - Forest and Nature School Programs in Ottawa, Ontario](#)
- [WILD CHILD Outdoor Playgroup](#)
- [Outdoor Play - YMCA of Southwestern Ontario](#)

Atlantic Provinces

- [Kentville Plays](#)
- [Play Outside Nova Scotia](#)

Québec

- [Metalude](#)
- [Regroupement des Centres de la Petite Enfance de la Montérégie](#)
- [Les Amis de la montagne](#)

Learn from Indigenous knowledge and practices relating to outdoor play and learning

Indigenous peoples hold vast knowledge and traditions relating to land-based education and outdoor play. Indigenous outdoor play activities and teachings are becoming increasingly more accessible in educational curriculums, community programming, and resources across Canada. As adult role models for children and youth, be inquisitive! Parents should also take the opportunity to reflect on their own relationships with nature and learn more about Indigenous ways of knowing and being where possible, to better understand the history, experiences, traditions, and

perspectives that guide this valuable knowledge. It is important to note that learning is a continuous journey that involves time, active listening, and reflection – which are principles that can also be applied when playing outdoors.

For more information on Indigenous teachings, outdoor play, and land-based learning resources, click on the links below:

- [What is Two-Eyed Seeing?](#)
- [Traditional Indigenous Environmental Knowledge - Videos from Learn Alberta](#)
- [Outdoor and Land-Based Resources and Programs - Rivers to Ridges](#)
- [Walking Together - Two-Eyed Seeing children's book](#)

See Key Considerations for Families Infographic [here](#)!

Additional Resources

Click on the links below for more information on current initiatives and research:

Childhood Outdoor Education

- [Outdoor Early Education Framework by the Canadian Centre for Outdoor Play](#)
- [Outside Play's Teaching Tool](#)
- [A resource for finding school programs and resources in Alberta and BC](#)
- [Learning Outside Together - Future Skills Centre](#) or [Early Childhood Educators of BC](#)
- [Two-Eyed Seeing and Early Childhood Education - Humber College](#)
- [Take Me Outside - Outdoor Learning Resource Hub](#)
- [Advancing Outdoor Play and Early Childhood Education: A Discussion Paper - Lawson Foundation](#)
- [The Outdoor Learning Store - Free Recorded Workshops](#)
- [Pathway to Stewardship & Kinship - Camp Kawartha](#)
- [Principles of Forest/Nature School - Child & Nature Alliance of Canada](#)
- [Project alex - a framework for ECE](#) (Only available in FR)

Outdoor Play

- [Position Statement on Active Outdoor Play](#)
- [Outdoor Play Canada](#)
- [IPA Declaration on the Child's Right to Play](#)
- [Ontario Children's Outdoor Charter](#)
- [Promising Practices for Children's Unstructured Play - Canadian Public Health Association](#)
- [Free Outdoor Equipment Rental](#)
- [Thrive Outside Resources for Parents - Child & Nature Alliance of Canada](#)
- [Fair Play for Kids' Nature Inspiration Guide](#)
- [Playful Mindset - Outdoor Play Support Groups](#)

Outdoor Play Spaces, Parks, and Recreation

- [Leave No Trace Canada](#)
- [7 Cs for Outdoor Play Spaces](#)
- [The Camper's Code - Outdoor Recreation Council of BC](#)
- [Inclusive Playgrounds Resource - Canadian Disability Participation Project](#)
- [A Municipal Tool to Design and Program Playable Public Spaces](#) (Only available in FR)
- [Activate your Neighbourhood! - A tactical guide to help you promote livable neighbourhoods](#)
- [2024 Canadian City Parks Report](#)
- [Play Street and School Street Projects](#) (Available in FR and ENG)

Indigenous Perspectives and Reconciliation

- [Relationship Framework - Save the Children](#)
- [Ontario Aboriginal Head Start Association](#)
- [Reconciliation in Child Welfare: Touchstones of Hope for Indigenous Children, Youth, and Families](#)
- [Indigenous Education - The National Centre for Collaboration](#)

References

- Ban, N. C., Frid, A., Reid, M., Edgar, B., Shaw, D., & Siwallace, P. (2018). Incorporate Indigenous perspectives for impactful research and effective management. *Nature Ecology & Evolution*, 2, 1680-1683. <https://doi.org/10.1038/s41559-018-0706-0>
- Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing. *Journal of Environmental Studies and Sciences*, 2, 331-340. <https://doi.org/10.1007/s13412-012-0086-8>
- Beyer, K. M. M., Heller, E. F., Bizub, J. M., Kistner, A. J., Szabo, A., Shawgo, E. E., & Zetts, C. J. (2015). More than a Pretty Place: Assessing the Impact of Environmental Education on Children's Knowledge and Attitudes about Outdoor Play in Nature. *International Journal of Environmental Research and Public Health*, 12(2), 2054-2070. <https://doi.org/10.3390/ijerph120202054>
- Boddy, S. (2020). *Boddy: Please stop destroying the Woods of Hampton Park*. Ottawa Citizen. <https://ottawacitizen.com/opinion/boddy-please-stop-destroying-the-woods-of-hampton-park>
- Braun, T., & Dierkes, P. (2017). Connecting students to nature – how experience and student age influence outdoor education programs. *Environmental Education Research*, 23(7), 937-949. <https://doi.org/10.1080/13504622.2016.1214866>
- Brussoni, M., Gibbons, R., Gray, C., Ishikawa, T., Sandseter, E. B., Bienenstock, A., Chabot, G., Fuselli, P., Herrington, S., Janssen, I., Pickett, W., Power, M., Stanger, N., Sampson, M., & Tremblay, M. S. (2015). What is the Relationship between Risky Outdoor Play and Health in Children? A Systematic Review. *International Journal of Environmental Research and Public Health*, 12(6), 6423–6454. <https://doi.org/10.3390/ijerph120606423>
- Burke, A., Moore, S., Molyneux, L., Lawlor, A., Kottwitz, T., Yurich, G., Sanson, R., Andersen, O., & Card, B. (2021). Children's wellness: outdoor learning during Covid-19 in Canada. *Education in the North*, 28(2), 24-45. <https://doi.org/10.26203/p99r-0934>
- Canadian Public Health Association (CPHA). (2019). *Children's Unstructured Play Position Statement*. <https://www.cpha.ca/childrens-unstructured-play>
- Cumbo, B., & Iversen, O. S. (2020). CCI in the wild: designing for environmental stewardship through children's nature-play. In N. Parés, & N. Sawhney (Eds.), *IDC '20: Proceedings of the Interaction Design and Children Conference* (pp. 335-348). Association for Computing Machinery (ACM). <https://doi.org/10.1145/3392063.3394398>

- Gemmell, E., Ramsden, R., Brussoni, M., & Brauer, M. (2023). Influence of Neighborhood Built Environments on the Outdoor Free Play of Young Children: a Systematic, Mixed-Studies Review and Thematic Synthesis. *J Urban Health*, 100(1), 118-150. <https://doi.org/10.1007/s11524-022-00696-6>.
- Girl Guides of Canada. (2014). *Leave No Trace: An Instant Meeting for Brownies from the BC Camping Committee*. <https://www.girlguides.ca/web/Documents/BC/program/Brownie-LeaveNoTrace.pdf>
- Gray, C., Gibbons, R., Larouche, R., Beate Hansen Sandseter, E., Bienenstock, A., Brussoni, M., Chabot, G., Herrington, S., Janssen, I., Pickett, W., Power, M., Stanger, N., Sampson, M., & Tremblay, M. S. (2015). What Is the Relationship between Outdoor Time and Physical Activity, Sedentary Behaviour, and Physical Fitness in Children? A Systematic Review. *International Journal of Environmental Research and Public Health*, 12(6), 6455-6474. <https://doi.org/10.3390%2Fijerph120606455>
- Hansen, J. G., & Antsanen, R. (2018). What Can Traditional Indigenous Knowledge Teach Us About Changing Our Approach to Human Activity and Environmental Stewardship in Order to Reduce the Severity of Climate Change? *International Indigenous Policy Journal*, 9(3), 1-14. <https://ojs.lib.uwo.ca/index.php/iipj/article/view/7553>
- Harris, K. I. (2016) [Let's play at the park! Family pathways promoting spirituality resources to inspire nature, pretend play, storytelling, intergenerational play and celebrations](https://doi.org/10.1080/1364436X.2016.1164669). *International Journal of Children's Spirituality*, 21(2), 90-103. <https://doi.org/10.1080/1364436X.2016.1164669>
- James, V. A., Dragon-Smith, C., & Lahey, W. (2019). *Indigenizing Outdoor Play*. Encyclopedia on Early Childhood Development. <https://www.child-encyclopedia.com/outdoor-play/according-experts/indigenizing-outdoor-play>
- Johnstone, A., McCrorie, P., Cordovil, R., Fjørtoft, I., Iivonen, S., Jidovtseff, B., Lopes, F., Reilly, J. J., Thomson, H., Wells, V., & Martin, A. (2022). Nature-based early childhood education and children's physical activity, sedentary behaviour, motor competence and other physical health outcomes: a mixed-methods systematic review. *Journal of Physical Activity and Health*, 19(6), 456-472. <https://doi.org/10.1123%2Fjpah.2021-0760>
- Kutz, S., & Tomaselli, M. (2019). "Two-eyed seeing" supports wildlife health. *Science*, 364(6446), 1135-1137. <https://doi.org/10.1126/science.aau6170>
- Lambert, A., Vlaar, J., Herrington, S., & Brussoni, M. (2019). What Is the Relationship between the Neighbourhood Built Environment and Time Spent in Outdoor Play? A Systematic Review. *International Journal of Environmental Research and Public Health*, 16(20), 3840. <https://doi.org/10.3390%2Fijerph16203840>

- Leave No Trace Canada. (n.d.). *Leave No Trace Seven Principles*.
<https://www.leavenotrace.ca/principles>
- Lee, H., Tamminen, K. A., Clark, A. M., Slater, L., Spence, J. C., & Holt, N. L. (2015). A meta-study of qualitative research examining determinants of children's independent active free play. *International Journal of Behavioral Nutrition and Physical Activity*, 12(1). <https://doi.org/10.1186/s12966-015-0165-9>
- Lee, E-Y., de Lannoy, L., Li, L., Amando de Barros, M. I., Bentsen, P., Brussoni, M., Fiskum, T. A., Guerrero, M., Oddrun Hallås, B., Ho, S., Jordan, C., Leather, M., Mannion, G., Moore, S. A., Beate Hansen Sandseter, E., Spencer, N. L. I., Waite, S., Wang, P-Y, Tremblay, M. S., & participating PLaTO-Net members. (2022). Play, Learn, and Teach Outdoors – Network (PLaTO-Net): terminology, taxonomy, and ontology. *International Journal of Behavioral Nutrition and Physical Activity*, 19(1), 66. <https://doi.org/10.1186/s12966-022-01294-0>
- Lerstrup, I., & van den Bosch, C. K. (2016). Affordances of outdoor settings for children in preschool: revisiting heft's functional taxonomy. *Landscape Research*, 42(1), 47-62. <https://doi.org/10.1080/01426397.2016.1252039>
- Loebach, J., Sanches, M., Jaffe, J., & Elton-Marshall, T. (2021). Paving the Way for Outdoor Play: Examining Socio-Environmental Barriers to Community-Based Outdoor Play. *International Journal of Environmental Research and Public Health*, 18(7), 3617. <https://doi.org/10.3390/ijerph18073617>
- Moore, R. (2014). *Nature Play & Learning Places. Creating and managing places where children engage with nature*. Raleigh, NC: Natural Learning Initiative and Reston, VA: National Wildlife Federation.
http://tessaroselandscapes.com.au/wp-content/uploads/2016/06/Nature-Play-Learning-Places_storefront_preview_0.pdf
- ParticipACTION. (2022). Lost & Found: Pandemic-related challenges and opportunities for physical activity. The 2022 ParticipACTION Report Card on Physical Activity for Children and Youth. Toronto: ParticipACTION.
- Peltier, C. (2018). An Application of Two-Eyed Seeing: Indigenous Research Methods With Participatory Action Research. *International Journal of Qualitative Methods*, 17(1). <https://doi.org/10.1177%2F1609406918812346>
- Sando, O. J. (2018). The outdoor environment and children's health: a multilevel approach. *International Journal of Play*, 8(1), 39-52.
<https://doi.org/10.1080/21594937.2019.1580336>
- Sandseter, E. B. H., Kleppe, R., & Sando, O. J. (2020). The Prevalence of Risky Play in Young Children's Indoor and Outdoor Free Play. *Early Childhood Education Journal*, 49, 303-312. <https://doi.org/10.1007/s10643-020-01074-0>
- Scouts Canada. (n.d.). *Activity Finder*. <https://www.scouts.ca/resources/activity-finder.html?show=12&search=Leave%20No%20Trace>

- Tremblay, M. S., Gray, C., Babcock, S., Barnes, J., Costas Bradstreet, C., Carr, D., Chabot, G., Choquette, L., Chorney, D., Collyer, C., Herrington, S., Janson, K., Janssen, I., Larouche, R., Pickett, W., Power, M., Beate Hansen Sandseter, E., Simon, B., and Brussoni, M. (2015). Position Statement on Active Outdoor Play. *International Journal of Environmental Research and Public Health*, 12, 6475-6505. 10.3390/ijerph120606475
- Truth and Reconciliation Commission of Canada. (2015). *Truth and Reconciliation Commission of Canada: Calls to Action*.
https://ehprnh2mwo3.exactdn.com/wp-content/uploads/2021/01/Calls_to_Action_English2.pdf
- Walking Together. (n.d.). *First Nations, Métis and Inuit Perspectives in Curriculum*. Learn Alberta.
https://www.learnalberta.ca/content/aswt/traditional_environmental_knowledge/#respecting-wisdom
- Zhang, Z., Stevenson, K. T., & Martin, K. L. (2022). Use of nature-based schoolyards predicts students' perceptions of schoolyards as places to support learning, play, and mental health. *Environmental Education Research*, 28(9), 1271-1282.
<https://doi-org/10.1080/13504622.2022.2032612>