



# Learning by Nature

Exploring the benefits of nature spaces on school grounds to support mainstreaming nature literacy.

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*May 3, 2024*



# Learning by Nature

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Connecting to nature has been proven to make kids smarter and healthier. The Learning by Nature project will ensure that all youth are educated about climate change, biodiversity, health benefits of nature, and positive actions they can take to protect their future, and ours.

## Participants

Adam Bienenstock, Bienenstock Natural Playgrounds	Jennie McCaffrey, BC Parks Foundation
Andrew Day, BC Parks Foundation	Jeremy Morrow, SD 71: Comox Valley Schools
Blair Hammond, Canadian Wildlife Service	Kate Henderson, Metro Vancouver
Burke Van Drimmelen, Ministry of Environment and Climate Change Strategy, BC	Kate Le Souef, BC Parks Foundation
Carleigh Whitman, Teck Resources Limited	Katie McGuigan-Scott, Ministry of Environment and Climate Change Strategy, BC
Cedric Ryckaert, BLES	Kevin Kaardal, SD 23: Central Okanagan
Cohen Bradley, BC Parks Foundation	Kiki Kirkpatrick, BC Parks Foundation
Connor McMullan, SD 44: Cheakamus Centre	Lara Peters, Parks Canada
David Karuhije, BC Parks Foundation	Laura Hergott, BC Parks Foundation
David Zandvliet, Simon Fraser University	Lindsay Morton, West Vancouver Schools
Dominic Regester, Salzburg Global Seminar	Maya Eyssen, Environment and Climate Change Canada
Elyse Curley, BC Parks	Patrick Robertson, University of British Columbia
Hannah Scott, Tree Canada	Rebecca Clapperton-Law, NatureKids BC
Hebah Hussaina, Human Early Learning Partnership	Sarah Nathan, Ducks Unlimited
James Bartram, IUCN Nature Based Education Task Force	Victor Elderton, Simon Fraser University
Jean Buckler, University of Victoria	

# Panel 1: Learning Commons by Developmental Stage

Dominic Regester, [Salzburg Global Seminar](#), Salzburg

Cedric Ryckaert, [BLES](#), Brussels

Sharon Danks, [Green School Yards America](#), California

Adam Bienenstock, [Bienenstock Natural Playgrounds](#), Canada

## Resources

- Children & Nature Network: [Global Lessons on Greening School Grounds and Outdoor Learning](#)
- Green Schoolyards America: [California Schoolyard tree canopy equity study](#)
- [The Salzburg Statement for Greening School Grounds & Outdoor Learning](#)

## Panel Key Points

**Sharon Danks, Green School Yards America**

- Features of outdoor learning spaces shouldn't solely revolve around curriculum because curriculum changes. "Living Schoolyards" are essential for longevity of the spaces.

**"There is no shortage of reasons why greening school yard spaces is beneficial for students, teachers, and the environment. It's important to choose how you frame the project to get the most support from those you're working with."**

*Sharon Danks, Green School Yards America*

**Cedrick Ryckaert, BLES**

- Nature spaces on school grounds should and can make teaching easy.
- Scaling becomes easier once successful projects have been completed.

**Dominic Regester, Salzburg Global Seminar**

- Link local initiatives to large scale global plans such as [UNESCO Greening Education Partnership](#)

**Adam Bienenstock, Bienenstock Natural Playgrounds**

- North America is currently focussed on stress and anxiety management in youth.

**"Listen to the problems that teachers face with the current education system. Use outdoor learning spaces as a solution to their problems."**

*Adam Bienenstock, Bienenstock Natural Playgrounds*



Green school yards America, forest classroom



## Panel 2: Efficacy and Reciprocity

Maya Eyssen, [Environment and Climate Change Canada](#)

Burke van Drimmelen, [Ministry of Environment and Climate Change Strategy](#), BC

Hebah Hussaina, [Human Early Learning partnership](#)

Blair Hammond, Canadian Wildlife Service

### Resources

- BC Government, [Climate change accountability act](#)
- UN Environment Programme, [Global Biodiversity Project](#)
- Human Early Learning Partnership, [Outside Play](#)
- First Nations Education Steering Committee, [First Peoples Principles of Learning](#)
- Children & Nature Network, [Case Study: Learning Through Landscapes](#)
- Environment and Climate Change Canada, [Toward a National Framework for Environmental Learning](#)

### Panel Key Points

Maya Eyssen, Environment and Climate Change Canada

**"Canadians are aware, want to act and don't know what they can do. Nature spaces on school grounds can be a source of meaningful action for Canadians."**

*Maya Eyssen, Environment and Climate Change Canada*

- The most anxious and underserved group in Canada is youth under 18.
- Promoting nature literacy requires a child-centric approach.

**Burke van Drimmelen, Government of British Columbia**

- There is a government mandate to educate on climate impact.
- Nature education spaces can benefit from government and NGO support.

**Hebah Hussaina, BC Children's Hospital Research Institute**

- Half of grade 11 students in BC reported feelings of depression or anxiety. Nature spaces have a positive effect on reducing depression and anxiety in youth.
- Research findings can call attention to the impact of nature spaces on student health.

**Blair Hammond, Canadian Wildlife Service**

- Human settlements have been built on top of biodiversity.

**"Nature is a gateway to science education for students."**

*Blair Hammond, Canadian Wildlife Service*



## Panel 3: School Systems Leaders

Kevin Kaardal, SD 23: Central Okanagan

Lindsay Morton, West Vancouver Schools

Jeremy Morrow, SD 71: Comox Valley Schools

Connor McMullan, SD 44: Cheakamus Centre

### Resources

- North Vancouver School District, [Outdoor Learning](#)
- Outdoor Education, [Cheakamus Centre](#)

### Panel Key Points

#### Kevin Kaadal, SD 23: Central Okanagan

- Schools are focussed on social justice and reconciliation. Nature spaces provide opportunity for place-based learning.
- There is strong interest in nature spaces on school grounds among school leaders across the province.

#### Lindsay Morton, West Vancouver Schools

**"Teachers and students are willing and ready to incorporate nature spaces into their practice."**

*Lindsay Morton, West Vancouver Schools*

- Nature spaces create the opportunity for cross curricular, inquiry-based learning.

#### Jeremy Morrow, SD 71: Comox Valley Schools

- Land-based learning creates a fundamental shift in the education system.
- Kids thrive in an outdoor environment.

**"If nature education is always a field trip, if it always needs a bus, if it always needs supervisors, then it will never be a priority."**

*Jeremy Morrow, SD 71: Comox Valley Schools*

#### Connor McMullan SD 44: Cheakamus Centre

- Neurodivergent students can flourish with outdoor place-based learning.
- Outdoor schools can compliment nature spaces on school grounds.



# Discussion and Outcomes

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Meeting participants supported a collaborative approach to transforming nature literacy across BC.

## Marks of Excellence in Nature Spaces on School Grounds

- Leading schools and teachers integrate outdoor learning into teaching practices.
- School grounds should contain 30% tree canopy in areas where children benefit.
- Nature spaces are part of a school's identity.
- Nature spaces on school grounds are long-lasting lifecycle maintenance structures.

## Co-Benefits and Connection

- Nature spaces on school grounds facilitate a land-based learning structure based in reconciliation and the [First Peoples Principles of Learning](#).
- Equitable access to nature spaces on school grounds plays a key role in promotion of student physical and mental health.
- Students can experience relief from climate anxiety by having agency in nature spaces.

## Scaling Nature Spaces on School Grounds

- Scaling Spaces on school grounds across BC will ensure equitable access to learning about nature, in nature.
- Scaling will support a community of practice, the mainstreaming of nature literacy, and economies of scale.

## Engaging with Schools and Community

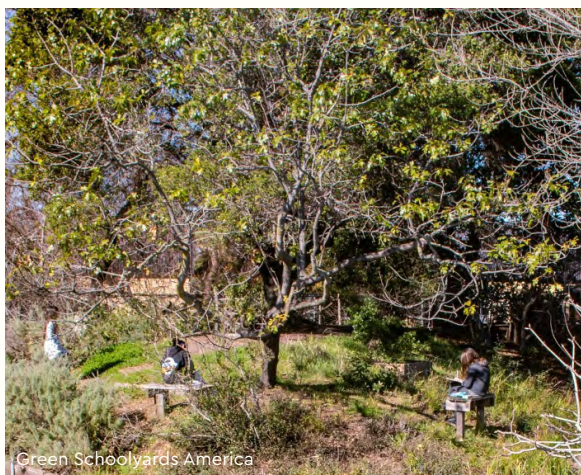
- Superintendents, Teachers, Students, Parents, and Administrators have all communicated the need for nature spaces on school grounds.
- Nature spaces on school grounds create space for student and educator agency.
- It is important to share the success stories to engage with a wider community.





## Nature Spaces on School Grounds Across Age Groups

Group	Features	Group-Specific Benefit
Early Childhood	<ul style="list-style-type: none"> <li>• Sensory integration</li> <li>• Messy play</li> <li>• Natural divisions</li> </ul>	<ul style="list-style-type: none"> <li>• Spontaneous Social Engagement</li> <li>• Powerful Play, learning, living</li> <li>• Opportunity for neurodiverse learners to excel</li> <li>• Access to outdoors in increasingly warming climates</li> </ul>
Adolescence	<ul style="list-style-type: none"> <li>• Areas to "chill" areas</li> <li>• Tree Canopy</li> </ul>	<ul style="list-style-type: none"> <li>• Mitigating stress and ecoanxiety</li> <li>• Providing areas for social connectedness</li> <li>• Improving Social Emotional competencies</li> <li>• A source of hope where students can <b>see</b> impact</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Open access to nature spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Community connection</li> <li>• Increased equitable community access to nature spaces</li> <li>• Mental and physical health benefits</li> <li>• Increased shade and heat mitigation</li> </ul>



# Solutions to Barriers

The attendees gathered to discuss barriers, solutions and tools for empowering teachers and students through the development of nature spaces on school grounds.



## Process & Design

- Start with 30% nature space in school grounds
- Build in teacher and student practice through design phase
- Daylight existing ecosystems
- Play-based & intelligent biological design



## Funding

- Create opportunities for the business community to support nature education
- Frame within human health, biodiversity and climate resilience
- Successful pilot will provide a proof of concept for future funding



## Collaboration

- Share best practices and success stories
- Create Mentorship opportunities for teachers in every season
- Co-design with current and future students
- Collaborate with the natural ecosystem to unveil what came before



## Student and Teacher Agency

- Provide opportunities for student leadership and advocacy
- Reference student-led initiatives for nature spaces on school grounds that already exist
- Give students real power and voice
- Extra-curricular groups and resources



# Conclusion

Creating nature spaces in school grounds is important and urgent work that positively impacts student physical and mental health, local biodiversity, inquiry-based learning, climate resilience and nature literacy.

- Prioritize the natural environment with intelligent biological design.
- Teacher and student community of practice will grow through mentorship, responsive professional development, and by inviting students into the conversation.
- Nature spaces on school grounds offer opportunities for business and community support.



## Recognition

We acknowledge and respect the rights of Indigenous people, and their relationships with the lands, waters and life in their territories. We seek to build positive relationships and respect for First Nations culture within parks and we support Indigenous protected areas.



A photograph of four diverse children (three boys and one girl) sitting on the forest floor, laughing and playing. They are surrounded by trees and sunlight filtering through the leaves. The text "Enjoy Now, Protect Forever." is overlaid in white.

# Enjoy Now, Protect Forever.



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