



# KOH-LEARNING IN OUR WATERSHEDS

Transforming education by connecting students, communities, and waterways



*Above: Flower near Murray Creek (photo by SD91 student Trista Teichroeb)*

*Top Left: Koh-Learning Logo (credit to SD91 students Niki MacKinley and Ronan Blattner; designed in collaboration with other SD91 students and Koh-Learning team members)*

## Dear Koh-Learning Community,

As many of you know, the 'Koh-Learning in our Watersheds' project is a UNBC and SD91 education initiative that aims to foster Aboriginal Education as well as hands-on waterways learning. Since our last update in January 2021, we have continued to find innovative ways of connecting students, communities, and waterways throughout and beyond School District 91.

In this update, we are pleased to share:

- **Recent events** the Koh-Learning project has been involved in over the past 6 months.
- **Updates on ongoing projects** - including the introduction of our new Koh-Learning logo!
- **Upcoming activities and events**, including opportunities to get involved with the Koh-Learning project over the summer months.

### WHAT'S INSIDE:

- (A) Recent Events
- (B) Ongoing Projects
- (C) Looking Ahead



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## (A) RECENT EVENTS

### Khit/Khui (Winter) Festival, February 2021

In February, the Koh-Learning project hosted a series of virtual events as part of the Kit/Khui (Winter) Festival\*. Over the course of four days, students, educators, researchers, and community members came together to create, learn, share knowledge, and celebrate ongoing initiatives in the watershed. Festival events included art workshops, storytelling, student presentations, and parallel events hosted by other organizations in the watershed. More than 450 elementary and secondary students participated, representing over 25 classes!

For more information on the Khit/Khui (Winter) Festival, please check out our [Festival Report](#).

### International Presentation, March 2021

On March 17, 2021, several Koh-Learning team members presented to an international audience at the [International Congress for School Effectiveness and Improvement \(ICSEI\)](#) virtual conference. The presentation, entitled "Koh-Learning in our Watersheds: Honouring Seasonal Voices Among Youth, Communities and Waterways", featured an overview of the Koh-Learning seasonal rounds diagram by Leona Prince (see page 5 of this update) as well as a panel discussion on the evolution of the Koh-Learning project over the past several years.

### Research Ethics Approval, March 2021

After submitting revisions to our Research Ethics Board (REB) proposal in February, the Koh-Learning project's revised application was reviewed and approved by UNBC's REB in March! Our evaluation team is now working on the next steps in our research process.



Above: Khit/Khui (Winter) Festival Photos

**(Top)** Student artwork created during a workshop with Indigenous artist Clayton Gauthier (photo by Mia Moutray)

**(Bottom)** Elder Jonas shares a story with students from David Hoy Elementary on Nak'azdli Whut'en territory (photo by Deb Koehn)

\*In conjunction with the Aboriginal Education Council of SD91, we are pleased to profile Dakelh, Nedut'en and Wet'suwet'en language that is integral to the Koh-learning in our Watershed project. For example, Koh (waterways) and Khit/Khui (winter).

## (B) ONGOING PROJECTS

### Koh-Learning Logo Design Project

Our logo design project has been ongoing since our 2020 Winter Gathering over a year ago and we are excited to introduce our new Koh-Learning logo (pictured right)!

Last spring and fall, we held two district-wide workshops for students and teachers to brainstorm logo design ideas, learn about key logo design principles, identify important values to portray through the logo, and develop initial logo examples.

Over the winter, Nechako Valley Secondary School (NVSS) student Niki MacKinley integrated the efforts of attendees at both workshops to inform several design options, which were then brought back to other SD91 students and Koh-Learning team members for feedback. In the final design, the 14 'spokes' are intended to represent the 14 First Nations communities within School District 91.

We look forward to hosting an 'official' launch of our logo at our Summer Gathering (see page 6 for more about this event!).

### NWR Youth Video Project

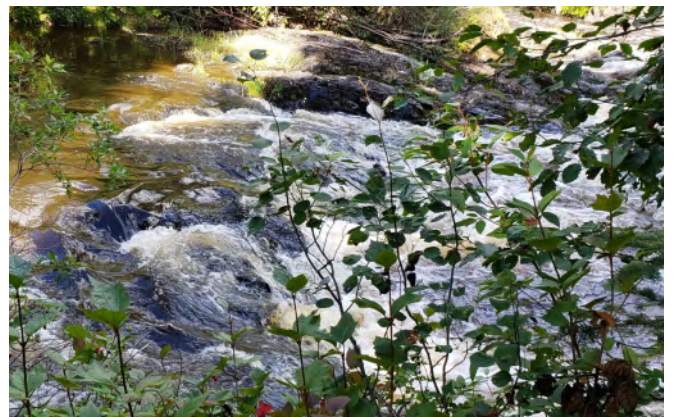
In partnership with the Nechako Watershed Roundtable, we have been working on a youth video project with local film producer Jonathan French. Guided by the storyboard developed by youth at our initial workshop in October 2020, filming was recently completed this spring in 3 communities across the watershed. To learn more about the NWR video project, please contact Jordan Cranmer at [cranmer@unbc.ca](mailto:cranmer@unbc.ca).



*Above: Koh-Learning Logo. Credit to SD91 students Niki MacKinley and Ronan Blattner; designed in collaboration with other SD91 students and Koh-Learning team members.*

### Ecological Monitoring in Fort St James

Throughout the winter months, students at Fort St James Secondary School (FSJSS) studied the ecological interactions of moose, wolf, and caribou populations and developed benefit-cost analyses of proposed management practices. This spring, students have been monitoring hummingbird feeders as well as working on creative solutions to improve fish habitat and reduce erosion along the banks of Nahounli Creek. A group of grade 8 students recently shared their restoration ideas with the Fort St James mayor and council, in a presentation that was very well-received.



*Above: Nahounli Creek (Photo by Diana Kutzner)*

## ONGOING PROJECTS (CONTINUED)

### Research Project: Linking School-Based Monitoring to Land and Water Decision-Making

UNBC graduate student Ella Parker has continued with her thesis research, working with Koh-Learning students, teachers, and decision-makers to co-design monitoring tools that can inform decision-making about land and water. Based on interviews with students, teachers, and decision-makers over the winter, the student water-monitoring program at Nechako Valley Secondary School (NVSS) has been adapted and a new round of student water-monitoring has been underway at the McLeod Wetland and Murray Creek this spring.

Ella also took part in UNBC's "3-Minute Thesis" competition in March and won first place with a presentation on her thesis work with the Koh-Learning project. Congratulations, Ella!

To learn more about Ella's research, please contact her at [parkere@unbc.ca](mailto:parkere@unbc.ca).



*Pictured Above (photos by Trista Teichroeb):*

**(Left and Right):** Grade 8 students from NVSS conducting water monitoring at Murray Creek

**(Centre):** Waterways Mentorship training day at Murray Creek

### Waterways Mentorship Program at Nechako Valley Secondary School

This school year, grade 11 and 12 student at NVSS in Vanderhoof have been engaging in the Koh-Learning project through the Waterways Mentors pilot program. Student mentors have been learning to conduct water monitoring, teaching these skills to younger students through fall and spring water monitoring sessions, and developing their own projects in connection to this work. Based on the success of the Waterways Mentors pilot program this year, the program will be moving forward as a SD91 board-approved course in the fall of 2021 for the mentors at NVSS! Over the coming months, the Koh-Learning team will also be exploring opportunities to expand this pilot program to other parts of the Nechako watershed and the school district.

## (C) LOOKING AHEAD

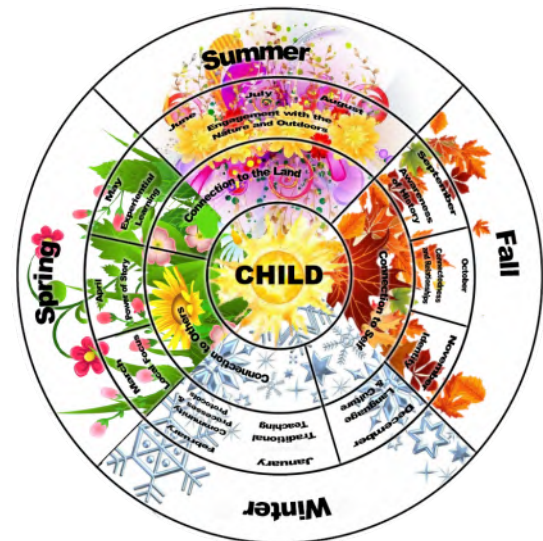
Guided by the seasonal rounds diagram for education (at right), we are looking forward to several upcoming initiatives and events in connection with the summer theme of 'engagement with nature and the outdoors'.

### Student Summer Jobs Program

In connection with the Koh-Learning project, SD91 is hoping to hire a crew of 1 adult supervisor and 2 high school students in Fort St James this summer. The crew would take part in a range of activities, such as environmental DNA (eDNA) collection and other approaches to ecological monitoring. The program is designed to provide hands-on work experience for students with a focus on watershed health.

This summer jobs program is part of the [Healthy Watersheds Initiative](#), a program funded by the Provincial Government and administered by the Real Estate Foundation of BC.

For more information about the student summer jobs program, please contact Barry Booth at [Barry.Booth@unbc.ca](mailto:Barry.Booth@unbc.ca).



*Above: The seasonal rounds diagram for education, used to help guide Koh-Learning activities. Developed by Leona Prince, District Principal of Aboriginal Education, SD91.*

### Redmond Wetland Project

This spring, students from elementary and secondary schools in Vanderhoof have been visiting the Redmond Wetland. Plans are underway for further restoration and education opportunities in connection with this wetland, with the possibility of cross-school collaborations. Stay tuned for further developments about Koh-Learning activities in the Redmond Wetland!



*Above: Research assistant and SD91 student Jorja Cranmer collecting eDNA samples with Dr. Brent Murray of UNBC (photo by Barry Booth)*



*Above: Grade 8 students from NVSS visiting the Redmond Wetland, May 2021 (photo by Mia Moutray)*

## LOOKING AHEAD (CONTINUED)

### **2021 Summer Gathering: August 23rd**

In keeping with our seasonal rhythms, we are looking forward to holding our annual Summer Gathering on August 23rd as an opportunity for teachers, students, and other community members to gather and connect in preparation for the 2021-2022 school year. More information about our Summer Gathering will be made available as details are confirmed. In the meantime, if you would like to learn more or get involved, please contact the Koh-Learning team at [koh-learning@unbc.ca](mailto:koh-learning@unbc.ca).

*Background: Nautley River, 2019 Summer Gathering (photo by Manu Madhok)*



**This update was put together by the Koh-Learning team at UNBC.  
Thank you so much for your interest!**

**To learn more about the Koh-Learning project, please check out our  
website:**

**<https://www.unbc.ca/integrated-watershed-research-group/koh-learning-our-watersheds>**

**If you have any further questions about the Koh-Learning project,  
please feel free to contact us:**

**[koh-learning@unbc.ca](mailto:koh-learning@unbc.ca)**