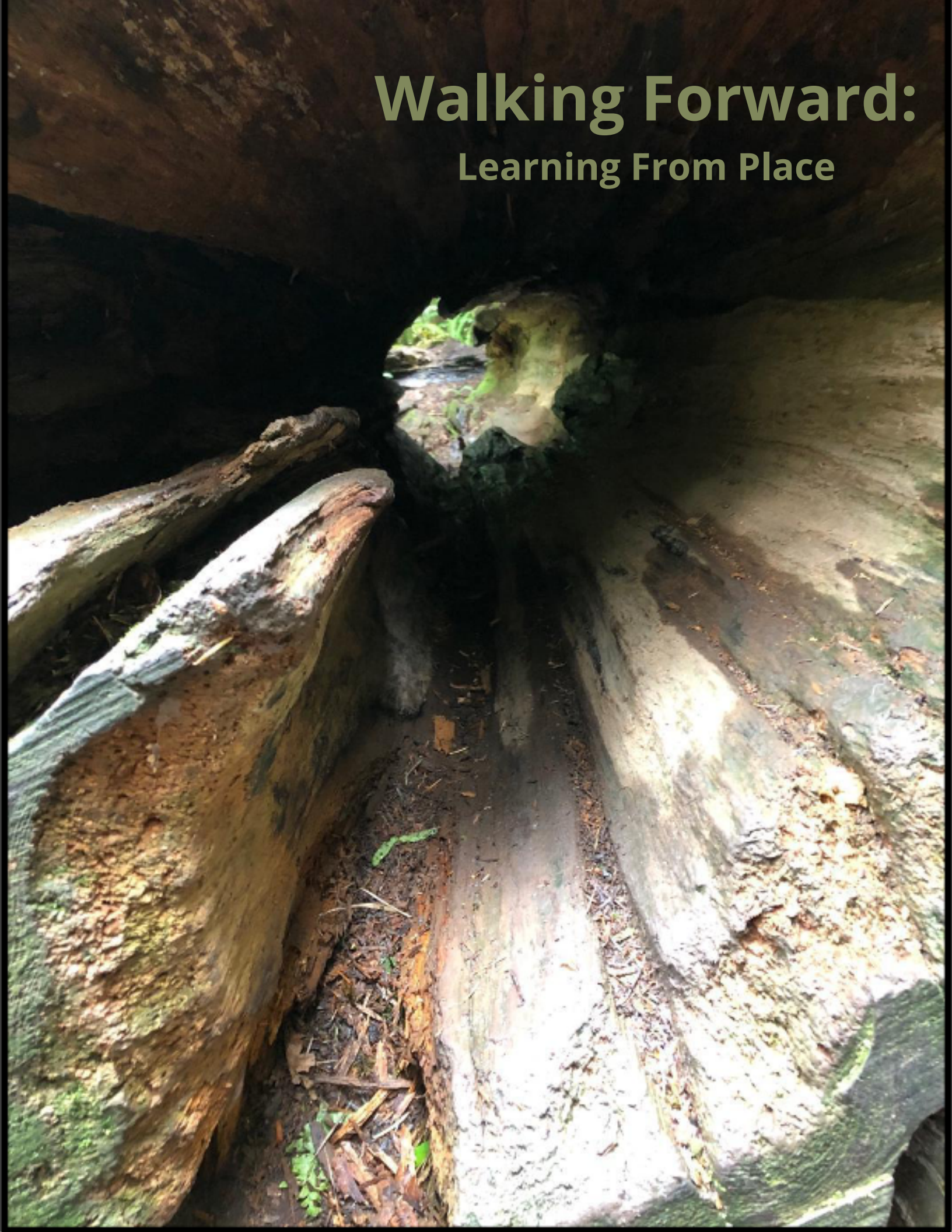


Walking Forward:

Learning From Place



We would like to acknowledge the traditional territories of the qiceý (Katzie), Semiahmoo, Qw'̓ ntl'en (Kwantlen), X'Muzk'l'Um (Musqueam), and sc̓w̓θ̓an məsteyəxw (Tsawwassen First Nation). We also recognize the deep connection to Place on these territories by the Halq'eméylem, Hul'q'umi'num' and hən̓q̓əmiḥəm speaking peoples who have been care-givers living in relationship with this land since time immemorial. We are grateful to have the opportunity to learn and engage in the teachings of truth and reconciliation in this special Place.



We would like to thank Nadine McSpaddin for her ongoing contributions and collaboration. Her support and work in the co-development of the Indigenous knowledge walks, plant gathering, and classroom curriculum knowledge sharing was instrumental to our collaborative learning and stories.

In addition, we would like to thank the school teams and the students who engaged in this inquiry and completed the reflections during unprecedented times. We are inspired by your commitment to student learning, modelling the First Peoples Principles of Learning, and willingness to trust the process.

Our gratitude extends to the Networks of Inquiry and Indigenous Education and the Surrey School District, Aboriginal Learning for their commitment to support teacher professional development.

Foreword

By Judy Halbert and Linda Kaser

The benefits of teachers moving learning outdoors are well established – rambunctious learners are able to focus, shy children find different ways to express themselves, anxious learners become better able to regulate their emotions, every one breathes a bit more deeply. Getting outdoors is a starting place. But what if we moved from learning outdoors to learning from the outdoors? What if we thought of Place as the teacher? What if we bring imagination to the heart of the practice? How can an understanding of Place and engagement of imagination help move us along the critically important path towards reconciliation? How can First Peoples' Principles of Learning guide our teaching?

This resource will help answer these questions. You will find powerful examples of how teachers are bringing an inquiry mindset and imagination to changing the experiences of their learners and deepening their connection to Place. (You may never look at a mud puddle the same way again after you hear the questions posed by the Kindergarten learners.) You will look at human-made and natural lines in brand new ways. Your eyes and ears will be open to new possibilities and imagination will forever be on your radar. You will consider what it means to be a watchful listener. You will gain a deeper understanding of how the First People's Principles and Indigenous worldviews can guide connections to Nature in all contexts.

Creating a resource like this requires a great deal of imagination, commitment, teamwork, patience and wisdom. The partnership between Heidi Wood and Gillian Judson, with the contribution of Nadine McSpaddin and her colleagues in Surrey has resulted in an invaluable tool for teachers everywhere.

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Beginnings

By Heidi Wood & Gillian Judson

As many conversations do, it began one day over coffee. We believe in the power of teacher curiosity and inquiry for transforming thinking. We are both passionate about the power of Place for knowing and being. In this resource, Place refers to the emotional and ancestral connections that include the physical landscape, language, resources, traditions, protocols and history to a specific area. We aim to put Place at the center of a pedagogy out of which inquiry and imagination can spiral.

This project originated from a desire to support teachers in imaginatively engaging their students in outdoor learning and in understanding the First People's Principles of Learning (FPPL). We employ the Spirals of Inquiry as a methodology from the Network of Inquiry and Indigenous Education (NOIIE). Using the spiral framework as a means for professional learning, we are able to embed Indigenous perspectives and knowledge with evidence informed practices on student learning.

What started out as a small inquiry developed into a narrative of how different educators are accessing learning and making space for authentic teaching about Indigenous ways of knowing and being in the BC education system. Our journey began by inviting educators to develop a deep understanding of Place. With educators, we explored the stories, learning, and history of the land from Indigenous perspectives. We sought to engage the imaginations of educators and learners. It is our hope that in exploring how Place is inextricably linked to the health of the Earth, human and more-than-human, this resource will illuminate and honour the interconnected relationship between Place, wellness, and imagination. For many, this Spiral offered a space to begin or develop an understanding of reconciliation. We recognize that the work of reconciliation will take more than creating opportunities for learning outdoors. Reconciliation is about the relationship and actions to heal past wrongs with Indigenous peoples and the communities. Reconciliation requires deep learning and a change in perception, attitudes, and actions to develop those relationships. This is but one small way to begin creating space for that learning to occur.

A total of 14 participants representing seven schools in the Surrey School District participated in the inquiry. Together our participants span a large portion of the Place upon which Surrey Schools reside, namely, the unceded and traditional territories of the Qw'ntl'en (Kwantlen), Semiamhoo and qicey' (Katzie) First Nations'. The participants in this inquiry are avid learners and are passionate about reconciliation, outdoor learning, and student engagement. Over a period of a year, educators became the learners, exploring the First Peoples Principles of Learning, participating in activities that ground the work of imaginative education, and working through the phases of a school wide spiral of inquiry. The stories shared in this resource—both in words and images—represent a vision for Place-centered imaginative education that brings Indigenous ways of knowing, being and doing and imagination to the heart of teaching.

We believe that imagination and emotional engagement have a central role to play in all learning. Each team in this project explored how to model the FPPL through Place-centered and imaginative ways and supported the learning with authentic Indigenous resources. For Indigenous ways of learning and teaching, connecting with the outdoors through experiential opportunities has been around since time immemorial. Indigenous ways of knowing, doing, and being have always had deep roots with Mother Earth and with Place. The “westernized” education system we use in schools is not as familiar with this relationship. It is this connection between imagination, emotion and the outdoors, that is new to many educators. Specifically, they explored an approach to teaching called Imaginative Ecological Education.

Roots

[The First Peoples Principles of Learning](#) ground the work of not only the BC curriculum but they provide a way to understand the holistic nature of teaching and learning through an Indigenous lens. Educators are able to use these Principles to help guide their work and model the connections between learning and teaching. Four key themes, as identified by Jo Chrona, emerge from the First Peoples Principles of Learning (*Continuing our Learning Journey* - Ministry of Education):

1. Learning places an emphasis on relationships - relationships with each other, with the land, and with our own identity;
2. Learning is holistic - it is connected to everything we do and to all aspects of being including mental, physical, social/emotional, and spiritual;
3. Learning is significant to our own identity - it influences how we engage with the world around us (worldviews) and connects us to each other, our communities, and the land; and
4. Learning recognizes the role of Indigenous Knowledge - it honours diversity, places emphasis on the inherent value of the knowledge, and is shared explicitly through authentic resources.

We gratefully acknowledge the work of FNEESC and Jo Chrona for the ongoing teachings with these principles.

[Imaginative Ecological Education](#), or IEE, (Judson, 2010, 2015) blends imagination with engagement of the body and Place-based teaching. Guiding principles involve Feeling (evoking emotion and imagination), Activeness (engaging the body), and Place/Sense of Place (developing understanding and emotional connection with local natural and cultural contexts). The overall aim of the IEE approach is to provide powerful learning opportunities that engage and grow emotion and imagination in learning, while they also cultivate students' understanding of the connectedness of all life and their sense of care and concern for the Earth. To support these goals, imaginative and ecologically shaped teaching activities connect the heart with knowledge, the body in learning, and learning in Place. Educators employing an IEE approach engage and grow learners' imaginations by using a whole range of “cognitive tools”, or learning tools, that include: the story-form, vivid mental imagery, games, role play,

identification of heroic qualities and dramatic tensions, a sense of mystery, rhythms and patterns, and wonder. Cognitive tools help us to learn because they connect knowledge with emotion. Learning becomes something that affects us. This is the goal. (For more information about cognitive tools visit the Tips for Imaginative Educators series on imaginED (www.educationthatinspires.ca).

The [Walking Curriculum](#) (Judson, 2018) is one example of how principles of IEE can come together to support learning and engagement. Each of the walks offers an inquiry question that is Place-focused. Framing and follow-up cognitive tools are employed to bring attention to the body and also to intentionally engage and grow emotion and imagination in the experience.

Walking Forward demonstrates how IEE and the Walking Curriculum can bring emotion and imagination to the center of pedagogy in ways that are Place-focused. We acknowledge that while Place-focused pedagogy can be found within Western traditions of education and it is on these traditions that IEE is based, understanding Place as teacher lies at the heart of Indigenous teaching and pedagogy since time immemorial. This work aims to bridge these traditions of learning and practice. It shares educators' stories of inquiry, in Place and with imagination, with an Indigenous lens. Following each story, we share a walk adapted from the Walking Curriculum as an example of how to move out on the land. All of the walks include an Indigenous perspective that links the walk and the imagination to FPPL. The perspectives provided are a part of a larger collection of work by Nadine McSpadden and Heidi Wood, *Walking with a First Peoples Focus*. The Indigenous connection shared is only one perspective. It is important to recognize that there is much diversity in Indigenous ways of being, knowing and doing, and that including an Indigenous perspective, allows for learners to begin making meaningful connections to Place with an Indigenous lens. Walking the walk from a local Indigenous perspective amplifies the inherent value of Indigenous knowledge, and ways of knowing and being for learning.

Through this inquiry into FPPL (fnesc.ca) and Place, we have created a story that we hope supports other educators in learning how to authentically and intentionally weave Place and imagination with Indigenous perspectives. Three threads are interwoven throughout this book: Indigenous ways of knowing and being, imagination, and wellness.

The first thread: Indigenous ways of knowing and being explored through the First Peoples Principles of Learning and understanding the significance to Place.

The work of the educators and students you will read about and the walking-based practices we offer you to try, interconnect FPPL and IEE. Walks outlined in the Walking Curriculum book (Judson, 2018) are paired in *Walking Forward: Learning from Place* with Indigenous connections that align with and evoke and teach the FPPL. By creating a bridge between FPPL and IEE we are creating something new, something we feel can help to support the needed shifts in thinking and practice that create authentic space for reconciliation work to occur. The disposition to learn outside from Place requires openness on the part of teachers and learners. This is a learning process for everyone.

The second thread: Imagination.

Learning, we feel, always involves imagination, curiosity, or the ability to conceive of the possible and an emotional commitment.

The third thread: The connection between Place and wellness--of the Earth, of human and more-than-human communities.

The stories you will read next reflect many positive emotions. Learning outside, learning from Place, developing a sense of identity and personal emotional connections to the natural world contribute to human wellness.

We encourage you, reader, to keep these threads in mind as you read these stories and think about how FPPL, imagination and wellness may grow in your practice.

The [Spirals of Inquiry](#) model is an evidence-based approach to collaborative inquiry developed by Dr. Linda Kaser and Dr. Judy Halbert. It assists schools in taking an inquiry-oriented, evidence-based approach to learning and teaching — one that focuses on making the education system more equitable through the provision of high quality learning opportunities for all young people.

The Spiral of Inquiry has six key stages:

- **Scanning**
- **Focusing**
- **Developing a hunch**
- **New professional learning**
- **Taking action**
- **Checking** that a big enough difference has been made



At each stage in the spiral, three questions are asked: *What is going on for our learners? How do we know? and Why does this matter?*

The Spiral of Inquiry is about listening to learners and reflecting on our own practices as educators. The spiral image captures the nature of inquiry – a continuous process and not a fixed cycle. The six key stages in the framework help school teams take a disciplined approach to professional inquiry, but inevitably, the true process will be messy and you will move between the stages as needed. The spiral is never complete – new learning always brings about new questions, ways of knowing and new opportunities for our learners. The image below shows the various phases of the Spiral of Inquiry. As educators work through these phases, learners develop meaningful connections. When these phases intentionally embed and model First Peoples Principles of Learning, and Indigenous ways of knowing, doing, and being, the learner is able to create deeper connections to Place, identity and the relationship between the two.

GEORGE GREENAWAY

The “Mud Squish”

By Kerri Hutchinson & Kim DeSchutter

As Kindergarten and Grade 1 teachers we love reading picture books with our classes. We often find there is joy, comfort, and ease in reading and discussing books. It was definitely an entry point for us when we began developing an understanding of the importance of embedding the First Peoples Principles of Learning (FPPL) into our classrooms. Over the past couple of years, we collected a library of beautiful picture books written by Indigenous authors that we read to our classes. We discussed the authors, made connections to the beautiful stories, and reflected on the books’ enduring ideas. We know young children are capable of big thinking, yet, recently we wondered if the ideas we were ‘teaching’ were really being understood by all our students.



Were our students seeing connections to this land, community, people, and Place?
Was there joy...passion...curiosity in their learning?

While we set out on our nature walks each day, we tried to look honestly at what our students were interested in. There was one particular stretch on our walk that was a muddy, soupy, grassy, squishy mess to walk through. As teachers, we even considered changing our walking route to detour around the mess of the mud! Yet, on our ninth walk a student cheered as we turned the corner and said “YES! The mud squish. That’s my favourite part!” We decided to step right into this ooey, gooey place with our students that they just couldn’t (or wouldn’t!) stay away from. What was there to learn about mud? How would this help our students develop their sense of community and Place? What about the mess! What would other people think!?

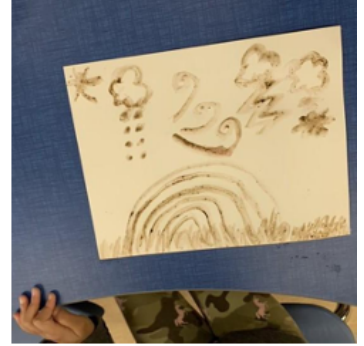
Each day we lingered a little longer in the 'mud squish.' Some students jumped in with both feet (and hands) while others poked sticks in it from the sidelines. We developed a range of vocabulary as students described the texture and scent of the mud. They described the ease of jumping into muddy patches and the difficulty of pulling themselves back out. After reflecting on our nature walk we asked our students: **What is mud?**

"It's water and dirt." E "Squishy and puffy." N "It's brown" A

"...but also got bits of grass and rocks in it." AD "Mud has to be mixed with rain." G

It comes from rain, but the sun dries it up and if it rains again mud can come back again." B

"Mud grows with more rain." A "Mud can sink you like a big vacuum" EG "It's disgusting water." GN



The following week we asked the students – **What do you wonder about mud?**

"Does rain melt mud?"

"Why is mud sticky?"

"Is mud made of quick sand?"

We wanted to explore those ideas and look more closely at the question of **'What lives inside mud?'** The students wondered what the holes in the mud could be from.

"I think it's homes for the bugs. One time when I lifted up a really huge big rock underneath it, guess what – there were bugs! And they went down deep, down in the dirt in their homes."

We also asked the students – **Why is mud an important part of our land?**

We used mud as an art medium to paint our theories.

"This is a flower, you need mud because it grows up from mud when it's sunny and rainy."

Over the months the 'Mud Squish' has gifted both us, and our classes, a new story and experience connected to our Place. The experiences we had were filled with messy joy and formed a greater context for our discussions. During this time, we have been mindful of using cognitive tools of Imaginative Ecological Education principles to engage imagination such as Activeness (Engaging through Bodily Senses, Emotions, and Sense of Relation) as well as Feeling and Place-making.

The FPPL we were mindful of weaving in include: 'Learning is holistic, reflexive, reflective, experiential, and relational' (connectedness, reciprocal relationships, and a sense of Place) and 'Learning takes patience and time, it ultimately supports the well-being of the self, the family, the community, the land'.

For us, being mindful of the cognitive tools and FPPL we were embedding supported our understanding of what we were seeing in our students, what learning existed, and what our next steps might be. We think this 'teacher lens' elevated our understanding of the playfulness we were seeing in our students and helped us linger a little longer in the joyful muddy mess! While our experiences in the 'Mud Squish' were just one small part of our year so far, we continue to wonder about what other possibilities could exist if our youngest learners had time to do what they do best – play, create, and immerse themselves (mind, body and heart) in their Place?

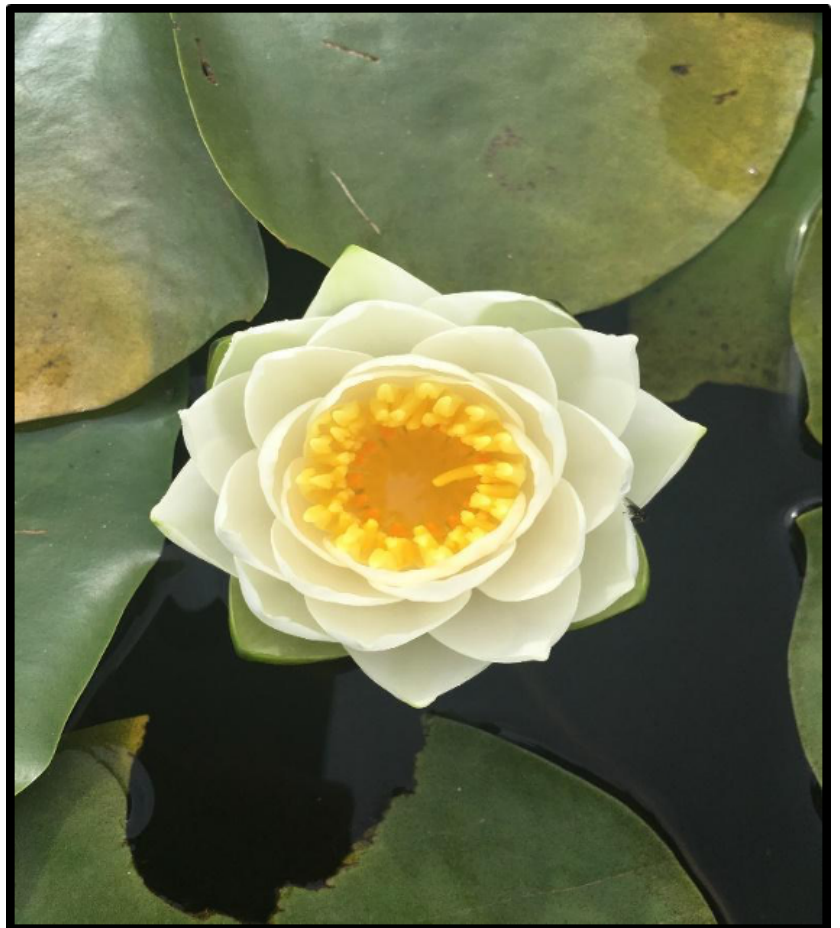


Lovely/Unlovely Walk

What do you notice on your walk that is lovely or pleasing? What do you find offensive or unappealing?

Use The Change of Context Cognitive Tool: Begin by creating a list of items you consider “lovely” and “unlovely”. Now, imagine you are one ornery (grumpy) person and you like to disagree with everyone about everything. Exchange lists with someone in the class. Your job is to now find what is “lovely” in the “unlovely” things you see on your peer’s list. What does this “unlovely” object contribute to our world in a positive way? Do the same for the “lovely” list—how are these objects not-so-wonderful? (*Walking Curriculum*, p. 21)

Indigenous Connections: First Peoples create works of art using the resources they have at hand. Objects are given value based on the amount of time and effort required to create it. For example, a Coast Salish blanket might have taken up to a year to make. It included harvesting the material, preparing it, and then weaving it. It took knowledge to embed story into it. What was valued was the story and Indigenous knowledge required to make it. How do we value things? If one doesn’t understand the significance of colours and materials selected to make an object, is it possible to value the completed project? A First Peoples belief is that we all have strengths and skills that make us special and unique. Sometimes those skills are valued differently. Just like something might be pleasing to one person and unappealing to another, we all have differences that make us unique and special.



First Peoples Principles of Learning:

Learning involves generational roles and responsibilities

- involves all members of a community
- teaching is a shared responsibility
- Elder knowledge is respected and shared

Goldstone Park



The Pond

By Charlene Penich and Brittany Roosen

At Goldstone Park Elementary, we are fortunate to have a pond beside our school. Although they live close, go to school nearby and pass the pond often in their daily lives, we were surprised by how many of our kindergarten students had not only never been to the pond but also seemed to lack interest in it. By taking time to explore, wonder and investigate, we believed we would increase students' interest in the pond, thereby deepening not only their connection to Place, but also their sense of responsibility and belonging.

We began by visiting the pond at least once each week. We focussed on two of our senses, our "deer ears" and our "owl eyes." Through visiting frequently and actively engaging these senses, students became more curious about the pond and its surroundings. We spent time on activities devoted to "looking closely." We used binoculars, sketched what we saw, took pictures, mixed our own colours to replicate the natural ones we noticed, painted pictures of our observations, created clay ponds and did a collaborative math project using patterns we observed at the pond. We also used our new experiences and curiosities about the pond to inspire our stories during story workshop activities.

As student interest turned to the ducks, we created a counting project that had us visiting the pond every day for 10 days to count and observe them.

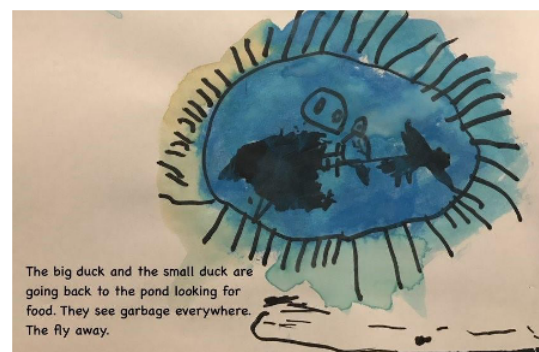
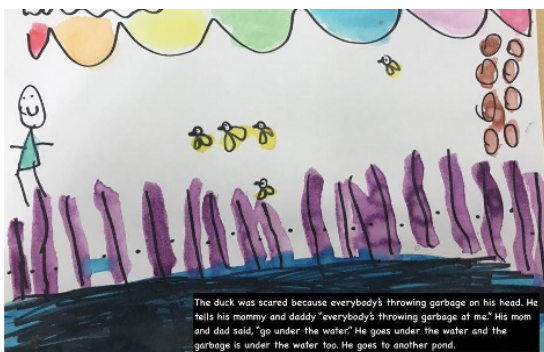
By connecting to the ducks, the pond became more than a Place that was just important to us, it also became a home for animals. Students became really interested in the ducks, they wanted to know all about them. They began referring to the pond as "our pond" and "our ducks." When it snowed, they wanted to go to the pond and check on the ducks; they felt a sense of responsibility to take care of them.



Recently, we showed kindness by doing a cleanup at the pond. Students were upset about how much garbage there was. They wondered where the garbage came from, why people littered, and if it was affecting the ducks; will they get sick, die, fly away? They also began discussing how they could help. They felt a call to action and were empowered to contribute to bettering the pond. We sent a letter of concern to an engineering technician in the city of Surrey's Stewardship department. As we await the reply, students are continuing to consider other ways they can help. They have suggested that we ask people to stop throwing garbage, that we write more letters, make posters, and tell our families and the students at the nearby high school about the garbage. They want to teach others how to respect the pond and thereby, care for the ducks.

As a result of the experiences, we have already had in this inquiry process, our kindergarten students are engaged and curious. They have taken ownership over the pond and an interest in what is there. Their concern over the amount of garbage at the pond has led them to consider how they can help. They have naturally and organically been drawn to finding a solution, to helping, not because their teachers led them to it, but because they are kind, concerned citizens who have a connection to Place. The pond is important to them, they want to take care of it and the ducks that live there.

During this process we have been guided by our students; their passion, wonderings and thoughtful discussions have driven our learning. We were also inspired by the First Peoples' Principles of Learning and the cognitive tools for Imaginative Ecological Education.



The First People's Principles of learning that we focused on were:

- Learning takes patience and time
- Learning involves recognizing the consequences of one's actions
- Learning is holistic, reflexive, reflective, experiential, and relational (focuses on connectedness, on reciprocal relationships, and a sense of place.)

The cognitive tools of Imaginative Ecological Education we incorporated included;

- Activeness: Engaging the body through Bodily Senses, Emotions, and Sense of Relation.
- Place making: Forming Emotional Attachments
- Feeling: Story, Heroic Qualities, Change of Context
- Role Play

Goldstone Park

Indigenous Understanding Using Math and the Outdoors

Shane Reader

Grade 5

Our class has been taking part in nature walks around our beautiful school. We work, play and learn at Goldstone Park Elementary School on the shared unceded territory of the Katzie, Semiahmoo and Kwantlen First Nations.

We have been learning about the term 'unceded', what it means and why it is a part of the land acknowledgement that we hear at assemblies and on the morning announcements.

During our nature walks, we are working to build connections to the land that is so instrumental to the lives that we live in Surrey. We are learning about the importance of the land and place to local First Nations and how instrumental they are to our survival and the story they tell of where we come from.

We have been gaining an appreciation for the land surrounding our school by learning photography techniques and taking photos. We have then been examining them and looking for Math concepts we can see embedded in the photos themselves. We

have compiled our photos together with written reflections documenting our experiences during this project.

We have thoroughly enjoyed exploring the land, artistic techniques, First Nations perspectives and worldviews as well as Math concepts during this project.

"Doing these pictures makes me feel more connected to the land surrounding the school by giving me a feeling that we need to take care of the land and nature by keeping it clean so it can survive as well as other living things and us as well."

"We did this unit to show another way of Reconciliation and to respect the unceded traditional territory of the Katzie, Kwantlen and Semiahmoo First Nations. Reconciliation means moving forward and making a relationship better. For us, that would mean making our relationship better between First Nations. This project has made me feel connected to the land because it helps me see the little things in nature."



"Since we are taking pictures of nature and the land it makes me feel like part of Indigenous culture and how they respect everything that they do. That's what makes me feel connected since we are doing this project."

The learning I have undertaken as an educator has been profound. I am realizing that my students are capable of connecting complex ideas such as First Peoples Principles of Learning, curriculum and their own lives. I am learning that as long as you scaffold such complex ideas, you will stretch your own thinking and that of your students.

The project has unearthed so many interesting and thoughtful questions from my students about the land surrounding our school.



What did the land look like before our school was built?

How did First Peoples use the land around our school for their survival?

If the land is unceded by the Katzie, Kwantlen and Semiahmoo Peoples, why do we have our houses here?

How long does Reconciliation take?

"Nature is very important to our survival and we need to appreciate nature. The First Nations people respect and honour the land... I feel more connected to the land surrounding our school because now I see that we need nature to live and how it helped the First Peoples. Nature gave me a home and food to eat and the trees give me oxygen so I can breathe. I'm connected to nature because our homes are on the ground where (forest) grass used to be."



This photo was taken on February 18, 2020. I took this photo by the high school. I thought this picture was pretty because I like how the sun is pointing at the green so the colour pops. I notice that there are very tiny veins on the leaves...? I also notice that there are different shades of green in the photo and there is some brown too, in the back in some places. We took these photos because we want to reconcile for taking the unceded land from the first nations. Now your probably wondering what unceded and reconciliation mean. Reconciliation means that you are trying to make up for something you did wrong like we are trying to make up for, taking the Coast Salish people's land that our school is on. Unceded means that something was not given up or not given to us. I am not really sure what this photography technique is but I would call it close up? You basically just go closer to your main object. This project more connected to the land because I saw a lot and learned a lot from the nature walks and I got to look at nature up close.



I have a few questions. I estimated that 1 leaf has about 32 leaves on that circled leaf, so how many leaves are on the whole leaf (the big one that is circled) I wonder how many colors are in this picture? I wonder how many leaves are on the whole tree? I wonder what fraction of the tree did I take a picture of? I wonder how long these leaves are and how wide they are? I wonder how old this tree is? I wonder if there are any bugs in the tree if so then how many bugs are in the tree? I wonder how many kids do we need to see the length of the tree? (Like, if we stack them?) When it rains I wonder how many rain drops can fit on the leaf? I wonder if the tree has leaves in the winter? I also wonder how many Mr. Reader's and Mr. Bertola's do we need to reach the top of the tree?



This picture was taken on February 18, 2020. I love this photo so much because the tree looks so mysterious with the shady parts. It was very hard to decide which picture I should use. But this was the one that I really liked. I have a connection. Whenever I look at this, I feel like it describes life. The bright part represents good times and the shady part represents the bad times. I wonder why the majority of the tree is bright, probably because the tree is having a good life! Trees have lives too. This photography technique is called 'The Rule of Thirds.' 'The Rule of Thirds' is where there are four lines which meet in four different spots. There is supposed to be a subject in at least one spot. The main purpose of taking these photos is to discover the Math behind nature. Also, so we can explore connections and recognize that we live on the unceded territory of the Coast Salish Peoples. Unceded means that something has not been given up. Right now, Reconciliation is happening. But, do you know what Reconciliation means? It means to restore a relationship. In this case, with the Coast Salish Peoples. Because their land was taken from them. Another reason we take pictures is because it fits into our Physical & Health Education Unit. There's nothing better than going outside and breathing fresh air. When I zoomed into this photo and I noticed that there were branches camouflaging in the shady part of the picture. Did you notice that before? This project made me feel more grateful for the land we live on because even though Reconciliation is happening, the Coast Salish Peoples letting us explore the nature on their lands. This project also made me feel like I lived in a Forest habitat and made me realize how beautiful our land truly is.

"No way to undo the wrong that was done, but I'm glad that we are at least trying to ask for forgiveness. Being outside and noticing the nature around us helped us to connect to the land in the same way as First Nations Peoples."

In exploring our visual and mathematical world around us we were able to move deeper into our connections to land and place using the First Peoples Principles of Learning. We focused on three key principles to help guides us:

Learning involves recognizing the consequence of one's actions.

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness on reciprocal relationships, and a sense of place).

Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.

In addition, it was important to plan with the cognitive tools such as: metaphor, sense of wonder, and literate eye.



Look at this picture, do you see it differently now? One half has more brightness, and one has more darkness. Just by looking at this photo, my mind is filled with so many questions.

I wonder how old this tree is?

Why do you think this tree has so many white dots?

I wonder why this tree looks so rough? What has it been through in its life to make it look the way it is now?

All photographs are made up of teeny tiny pixels. How many pixels do you think make up this photo? How many pixels would be in half of the photo?

What's Under Foot Walk

What do you notice about the world you are walking on? What is under your feet?

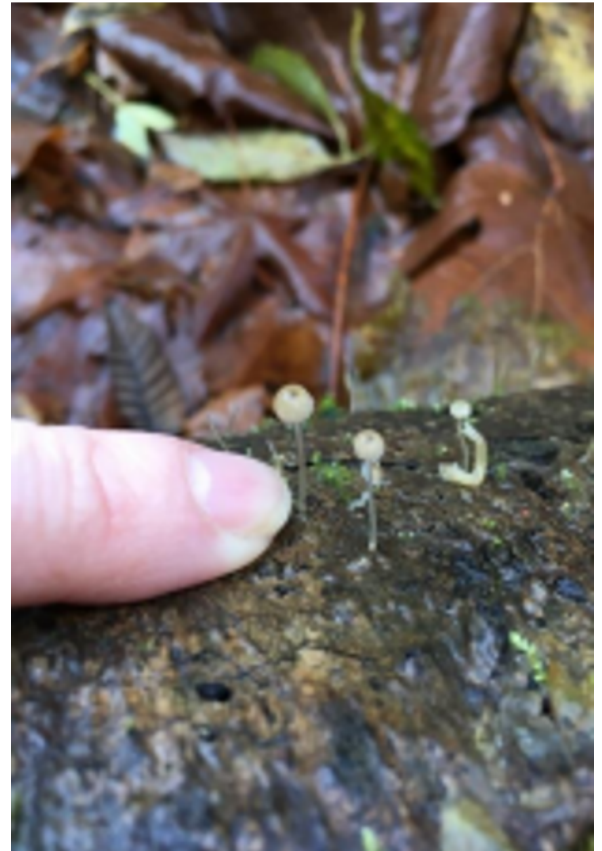
Use The Sense of Wonder Cognitive Tool: Everything, eventually, goes back to the Earth—so what really have you been walking on? The remains of ancestors? The dampness of water that was once in an ocean far away? Imagine that with each step a ghost escapes. What ghosts of flora and fauna float around you? (*Walking Curriculum*, p. 19)

Indigenous Connection: First Peoples have a sense of the interconnectedness of all things. There is an understanding of the importance of taking care of the land and it will take care of you. Indigenous knowledge tells of an understanding of life cycles, sustainable harvesting practices and only taking what you need. These things are important teachings that demonstrate a relationship and a sense of stewardship of the traditional territories and all living things on it. There is a sense of respect when harvesting things. For example, when harvesting cedar, many First Peoples will give an offering to the tree and offer a prayer telling the tree what the cedar will be used for. Why does this matter? Imagine if you were the tree and bark was going to be removed from you? How might caring for the land help us understand what is under our feet?

First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). Learning involves recognizing the consequences of one's actions

- Involves the whole learner: physical, mental, social/emotional, and spiritual
- Life experiences are seen as a part of learning
- Learning builds new knowledge through reflection, through experiences, through the interconnected relationships with the world



The Line Walk

Find a human-made line. Follow it. Where does it lead? Find a natural line (a track from some animal perhaps)—Where does it lead?

Use The Literate Eye Cognitive Tool: Once you return inside, visualize the lines you followed. Try to draw them. Create a detailed map of your route and what you passed along the way. (*Walking Curriculum*, pp. 17-18).

Indigenous Connections: First Peoples know their traditional territories well. There were no “borders” but instead resource boundaries. When gathering resources, First Peoples will often follow trails created by animals. This does two things: first, it is less work to follow a trail that has already been created and secondly, animals can be foraging on the same natural line. Maps were not used, instead directions were followed using natural elements and features. How might human-made and natural lines work together? What knowledge needs to be shared to be able to follow the different lines?

First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).

- Involves the whole learner: physical, mental, social/emotional, and spiritual
- Life experiences are seen as a part of learning
- Learning builds new knowledge through reflection, through experiences, through the interconnected relationships with the world

Learning recognizes the role of Indigenous Knowledge.

- Indigenous peoples have a vast knowledge of the relationship between living and non-living
- Knowledge is ecological, scientific, and land based
- Knowledge is continually growing, changing and shared



"I could hear silence and my breathing. I felt safe, like I was wrapped in the world's arms."

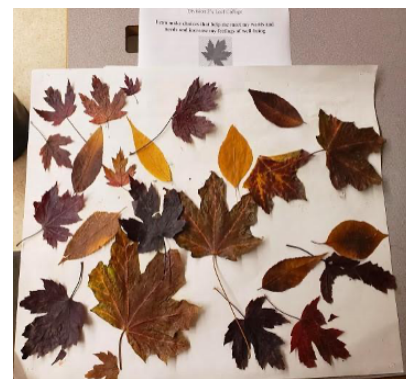
Hillcrest Elementary

Cole Stewart & Jessica Boss



Working on this inquiry has given our students a better understanding of what it means to have a sense of Place. It has also helped them connect to the environment around our school in a way that helps them self-regulate. One class read the story "Touching Spirit Bear" by Ben Mikaelson. We recognized that this book is not an authentic Indigenous resource, but instead wanted to focus on the main character's social and emotional learning journey through his connections and experiences with the land. In this book, the main character focuses on clearing his mind to become 'invisible.' When he is able to become invisible, he sees the spirit bear. My students focused on this concept each time we went outside to interact with our environment. Each time, no matter which sense we were focusing on, we would read the part of the book where the main character talks about how he was able to become invisible. When he did this, he felt immense calm. The most common feeling I have noticed that has emerged in my students' journals is also a sense of calm after our walks. Each time, they often say that before the walk they felt tired, anxious, stressed, nervous, perhaps grumpy, but inevitably after each walk, the vast majority of them said that they felt calm. I believe we're able to take a story, which really is a story about how to discover one's true identity and ability to connect to the land and place, and apply it in an urban setting.

In the other class, we had been focusing on using various strategies to calm our mind and body. We have found the nature walks (Walking Curriculum and Indigenous Knowledge Walk-ing Connections) to be a great extension on our mindfulness activities in class (i.e. Mindful minutes, guided relaxation stories, Mind Up chime, etc.). Initially students found it extremely challenging to walk quietly on their own but progressively got more comfortable walking quietly for an extended period of time. Students consistently reported that they noticed many new things about the nature surrounding them that they normally would miss when they were outside playing with their friends or listening to their headphones as they walk home.



By giving the students one of the senses to focus on for their walk it allowed the students to "zoom in" and appreciate very specific aspects of their surroundings. After they shared some of the things they appreciated, such as "the leaves crunching under [their] toes," or "the cool breeze prickling [their] cheeks." Many students commented about how they enjoyed the chance to feel the difference between each of the seasons.

Students engaged in conversations about the land we live on, what it used to look like, and who was here before us. Most acknowledged that they had never considered their connection to the land in the way that we did through our class walks. Most had never considered that our community is developed in somewhat of a circle, with the elementary school in the middle. This led to conversations about how knowledge and education are at the centre of a community.

Our lessons incorporated the FPPL that focused on learning being holistic, involving connectedness and a sense of place. Because we were inquiring into how Imaginative Ecological Education could help our students with mindfulness, we looked at them as whole beings, and we engaged in discussions about how our learning does not just have to, nor should it, only take place in the four walls of the classroom. Instead, we should use our whole environment for our learning to be holistic. Doing so allows students to feel grounded, and as we found, the majority found an amazing sense of calm when we took our learning outdoors and connected to nature, developing a sense of place.

"I felt calmer and more focused as I listened outside. I walked forward and around the school feeling peaceful and refreshed."



During our outdoor activities, students utilized bodily senses, emotions, and a sense of relation to interact with the environment. They focused specifically on their senses including feel, sight, and sound, then used those senses to connect to their emotions. For example, students used their journal to write down how they felt before we went outside, then after the activity they wrote down things they had seen, heard, or felt. Lastly, they discussed how they felt after the experience.

"I feel a lot more relaxed, my body feels like it is ready for the rest of the day."

ROYAL HEIGHTS

Exploring, Learning, Discovering

Melissa Cho

This year at Royal Heights Elementary, I have a diverse group of grades 3 and 4 learners. Over the last few years at Royal Heights I have noticed a shift in the learners and in their motivation and need to be outside exploring, learning and discovering the Place where we learn and live. I wanted to focus on connecting my learners to the land and Place that our community is built on in hopes of connecting with the FPPL (First Peoples Principles of Learning: learning ultimately supports the well-being of the self, the family, the community, the land, the spirits and the ancestors.) The City of Surrey presented Division 5 with an opportunity to participate in the removal of an invasive species (Himalayan Blackberry) from our local park. I thought that this would be an opportune time to engage my learners, as it connected well to the land and Place where my learners live and play.



When asked if they would like to participate in removing invasive species from Royal Heights Park, every learner was very eager. To my surprise they were all on board and thrilled that they would be helping our community. We began with learning about what an invasive species is and to their shock the students learned that *"invasive species spread and hog all the nutrients, sun and water in the space they invade"* (student quote). We learned that it is happening in our local park, a Place where families in our community spend time in, as well as a Place that is a habitat to many animals and insects. Another learner discovered that *"invasive species can harm animals by preventing them from reaching their home or prickling them with its thorns"*. The learners were furious and motivated to make a change. They decided their purpose was to *"stop the Himalayan blackberry bush from continuing to invade our park path"* and they wanted to *"save the plants native to our community and have more space so that we can plant more native shrubs and trees such as snowberry and salmonberry"*.

Later in the Fall, we headed to Royal Heights Park where the City of Surrey assigned our class a section of the park to take care of. The City of Surrey park stewards shared their knowledge and taught us how to identify the Himalayan Blackberry bush. We had to work hard to become familiar with the blackberry bushes so that we were always sure to pull out the right plant. The Park Stewards also demonstrated the ways in which we could cut branches and remove the roots of the Himalayan Blackberry bush. After our workshop, learners were enthusiastic and keen to get started. We spent nearly two hours on our first day, snipping and cutting the plants. Outside of our classroom walls and in the park, I continued to provoke their curiosity in regard to their understanding of invasive species. The more we pulled and cut the blackberry bushes, the more learners began to demonstrate an appreciation for one another. They learned that

working together was more valuable than working alone. Together as a team they discovered they could dig up more roots. In the space at our park, learners were able to function and communicate as a team. One learner, while digging up a root shared that she *“felt like a heroic person”* doing this work.

Some of the heroic qualities learners described feeling while cutting the bushes were *“bravery, friendship, responsibility, community, strength and teamwork”*.

Another learner went on to share that he felt like *“beaver because him and his classmates came together to work for the greater good of our community”* (Six Cedars reference).



As part of the work, learners also needed to gather more information about invasive species, so they continued to research. During their research, students discovered that invasive species were not only harmful, but they were also useful. Students learned that *“the parts of the Himalayan Blackberry bush could be used to make jellies, jams, candies, clothing, paper and even skin products”*. I began to witness learners enter a space where they could use evidence to make judgments and decisions based on their ability to evaluate evidence. It was here that I began to see the cognitive tools of Imaginative Ecological Education (IEE) emerge such as emotion being evoked within them. Connecting to the FPPL, learners began to recognize the consequences of their actions which led to some students

having a disagreement about our project. Some learners wanted to continue out of fairness for the other native plants and their survival while others wanted to stop pulling the invasive species because they now viewed it as unfair to the Himalayan Blackberry bush which could offer us many things. This argument created spaces for the binary opposites cognitive tool to shift in and play a role within the learners' feelings and understanding of Place and what it meant to them. After discovering this information and knowing that Himalayan Blackberry bushes can be useful, some learners felt another pull and went from feeling heroic to quite possibly a villain depending on perspective.

The impact of this work was far larger than ever imagined. The learners and I embraced and engaged with the teachings in many ways. As their teacher, I learned that this opportunity to discover and pull the invasive species supported the FPPL that education should support the well-being of the self, the community and land. This lesson allowed my learners and I to continue to grow an appreciative respect for this Place and all that it provides us. Doing this work allowed me to see the importance of guiding learners rather than telling. Students were able to come to their own conclusions and make informed decisions organically, based on their own judgments and evidence that they brought forward. This process occurred naturally, as they continued to learn more about invasive species.

Following the FPPL and employing cognitive tools of Imaginative Ecological Education encouraged my learners and I to open our hearts to new experiences. Their deep connection to the land and Place they are working with and on allowed us all to develop a deep sense of care and respect. Our classroom community valued having the opportunity to help and take care of the land. The moments they spent together removing the invasive species is not about being praised for their hard work, but rather the feeling of community and sense of Place.

ROYAL HEIGHTS

Cedar Gatherings

Vanessa Mercado & Johnny Zvi



A significant component to building a strong community is creating a routine and practicing it together. As a Place-based school, our goal was to find ways to connect, not only with each other but with Place. At Royal Heights we have a motto which states, “reaching great heights by honouring deep roots” and it just so happens that we have two beautiful Red Cedars in separate locations on our school grounds with visible roots, reaching high to the sky, a perfect vantage point for several birds. With each Cedar on opposing sides of the school, students often wonder about the relationship between the two trees, wondering for instance if the two trees could communicate. Different students were drawn to the different trees, feeling more connected to a specific Cedar for their own special reasons. For us, these two Cedars evoked strong emotions and challenged our imaginations. Our two living and breathing Cedars provided experiences full of different opportunities for all students.

Every Monday and Friday morning at 9:00 am, Divisions 6 and 7 gather in a circle to honour the land beneath our feet, our Place which holds us up and our ancestors, those who were here before us. Our goal for integrating this routine into our weekly schedule is to continue with our outdoor commitment to learning with nature as co-teacher. Our gatherings were meant to begin and end our week with a sense of strong heart and mind, feeling connected to each other and connected to our Place. These two Cedars which we have learned to refer to as “Trees of Life”, have guided our learning and our morning gatherings have had significant and authentic impacts for both students and teachers.



Following the big idea of the Four Rs (Respect, Responsibility, Relevance and Reciprocity), this special circle time allows us to practice protocols that we have learned from Indigenous Elders. We create our own expectations and build on the foundational knowledge we hold with gratitude. Firstly, we always ensure that Cedar is included in our circle. This small gesture brings the Cedar to life for many students. Cedar teaches us to be more mindful of those non-human entities around us, even in urban settings. We gather, rain or shine to do our morning

work of honoring Place. We always begin with a land acknowledgement and provide opportunities for our students to lead. Following the land acknowledgements, we sing a song together to the beat of a sacred drum. The songs and the drum offer opportunities for students, such as learning how to carry the drum to Cedar with respect and following a previously learned protocol of warming the drum before we sing. We also had students wanting to begin the song for the whole group and through these small gestures, we noticed many students taking responsibility and gaining a great deal of confidence.

On Mondays we sing “The Four Directions Song” and on Fridays we sing “The Heartbeat Song”. Both songs and the making of the drum had been gifted to us through Lekeyten, a generous teacher from Kwantlen Nation. The students understand the importance of Drum amongst many Coast Salish Peoples and demonstrate a great appreciation toward our drum which was made from cow hide. This work is important and energizing. We understand Drum is sacred and the songs we sing are medicine. Our gatherings with Cedar naturally began to extend and this time and Place became a safe space for us to try new things.

We borrowed books from the District Aboriginal Resource Centre about the Cedar and Indigenous teachings, students began to volunteer to teach the group about Cedar from the resources provided. We learned about the uses of Cedar and a process called “Cedar Brushing” which taught us the protocols of cleansing our minds and hearts to allow us to live in a good way with community and nature. In our classroom, we hung a Cedar bough above the door as a reminder to practice making choices which kept our classroom positive, cleansing any negative thoughts, feelings or behaviours. Other times, during our Cedar visits, we kept intentionally unstructured. Some students simply explained what they saw and their thought process about something they wondered about. The deepest moments of inquiry were those times that we simply wondered and imagined about what was here in this Place long ago.



Next, we implemented “Sit Spot”. After our gathering with Cedar, the students go to the same spot for several minutes to contemplate. At first, we sent them off to their sit spot with a question to think about, but it quickly became evident that they didn’t need a guiding question each time. Their Sit Spot is their special time to sit with their thoughts and they truly understand this.

During the winter months when sitting in our “Sit Spot” became difficult for students who were not dressed for weather below 0 degrees Celsius, we learned about the Halq'eméylem language using the website “First Voices”. Students were excited to volunteer to teach a word, practicing the pronunciation in the morning and teaching it to the whole group. Many of our students have been so deeply impacted by our Monday and Friday routines, that they feel it should become a school-wide experience.



Growth Walk

What is growing on your walk? How do you know? What are the different ways in which growth appears to you?

Use The Role Play Cognitive Tool: What's "growing on" in your schoolyard? Like a reporter, give a "breaking news" report about one or two examples of things growing that you observed on your walk. (*Walking Curriculum*, p. 20)

Indigenous Connection: First Peoples are keen observers. They have an intimate knowledge of the land and all living things on it. First Peoples have indicators or signs that tell of changes in seasons. For example, when the salmon berries ripen, it indicates that the salmon are returning to the river. Coast Salish peoples harvest cedar bark in the spring when the sap is running. By harvesting at this time, they know the cedar bark will separate from the tree much easier. First Peoples know the time of the year to harvest various parts of a plant. New spruce needles are a form of medicine. The colour and texture of the needles were indicators of when they could be harvested for medicine. Understanding what is growing, when it can be harvested, and what purpose it has is called "traditional ecological knowledge". Why is this type of knowledge so important?

First Peoples Principles of Learning:

Learning recognizes the role of Indigenous Knowledge.

- Indigenous peoples have a vast knowledge of the relationship between living and non-living
- Knowledge is ecological, scientific, and land based
- Knowledge is continually growing, changing and shared

Learning is embedded in memory, history, and story.

- Teaching and learning is shared through oral traditions
- Includes stories, histories, cultural knowledge and makes connections to the natural world



Feeling Rooted Walk

What do you find that has “roots”? What do you notice about the roots?

Use The Metaphor Cognitive Tool: Humans often use language related to trees (and other plants) to describe themselves. For example, we talk about “be rooted” or “branching out”. What does it mean to have good roots? What does it mean to branch out? Talk to people in your community—what other ways do we apply “tree language” to ourselves? (*Walking Curriculum*, p. 20)

Indigenous Connection: First Peoples harvest various kinds of roots for multiple purposes. Coast Salish peoples harvest cedar roots to make baskets. Interior Salish harvest balsam roots to make a salve for skin ailments. Knowing what, where and how to harvest roots is an example of Indigenous traditional ecological knowledge. First Peoples know how to harvest roots in a sustainable way which ensures that roots would be available for future generations. Recognizing the roots in a Place goes beyond the plant. Being connected to a Place is also one way in which Indigenous peoples develop community, traditions, and history.

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SULLIVAN

Four Directions

Amy Wilder and Lora Sarchet

Built in 1950, Sullivan Elementary bears the name of a pioneer whose ancestors have roots within our community and whose relations attend our school. Last year, many of our children expressed deep sadness and concern for the loss of our neighbouring forest, as developers made space for new homes and new families. We listened to the trees creak as they fell to the ground and collectively felt the vibrations ripple underfoot. Over the following seasons we couldn't help but notice how the birds and squirrels failed to return to our playground and mini forest nearby. Together with the children, we continue to question our relationships with the land. This year we knew our work would focus on deepening our sense of Place, listening to the stories of our land, and sharing our voices.



"A garden teaches us to never to lose hope. If a plant looks like it is dying, don't just leave it. Try harder to help it. Give love."



Inspired by Roy Henry Vickers' stories, artwork and his four directions teachings, our classes worked together to grow and share our stories of the special Places around our schoolyard. Through observing and documenting our children's interests in September, a special Place connected to our school became a focus for each of our four classes (School Garden, Cedar Grove, Mini Forest, and Water that sustains each Place). Our projects grew from our children's ideas, observations and

teachings, from learning and playing in our outdoor Places and weaving in the ideas gifted from the followed stories shared by Roy Henry Vickers: Orca Chief, Peace Dancer, Cloud Walker, and Raven.

"The garden shows me different types of progress. Some years the carrots grew and other years they were not good, even when we went to the store."



East – Spring – Earth - Garden – Teacher

Guiding question: How might the school garden be a place where stories are collected?

Our small school garden was established in May 2019. We envisioned our garden to be a Place of interaction, active investigation, playful storytelling and transformation.

Just like the Raven in Roy Henry Vickers' teaching, the garden transformed our thinking about our children's interactions with the land and their desires for connection, exploration, and reflection. The garden called children of all ages to come gather and play amongst the garden beds; pinching chives for tasting, rubbing fingers and cheeks on the velvet soft leaves of sage and Lamb's Ear, or crushing lavender stalks to release their delicate fragrance on their fingertips. The garden naturally became a Place where children slowed down, leaned in and investigated garden spiders and precious ladybugs, or gingerly lay dead wasps to rest.



As I witnessed these connections to Place, I wondered about the stories being told and how we could sustain our engagement through the seasons when the plants and insects began to fade. How might we invite other storytellers to join us?

In our work as storytellers, we formed deep emotional attachments with one special plant in our garden. Each child wondered, noticed, and collected data to share the stories of their plant's transformations.

We played with ideas of connections, communication and relationships as we dramatized and built miniature insect villages among the dormant plants. We simply learned how to be in relationship with the garden. How to actively play, nurture and respect the garden all at the same time, recognizing the delicate balance.

As our attachments grew, we collaborated on ways to bring others into the garden to listen and share their stories. We conducted a schoolwide vote to name our garden, created story baskets of hand-crafted story pieces, designed garden specific plant cards to share our knowledge, and added special elements to welcome our school community including birds, insects and other visitors to our garden.



South – Summer – Fire – Healer

Guiding question: How does listening to the past help us to heal, connect, and move forward?

In getting to know my group of learners this year, we began with a challenge to take our learning outdoors for 30 consecutive days. This connected us to our Place in a new way. I noticed a curiosity and wonder about trees, and an interest in gathering collections.

*"I'm grateful for the trees and the fresh air." "Leaves are nature's love notes."
"My leaf has superpowers!"*



During our first few outdoor gratitude circles many children shared appreciation for the trees in our yard. Children were invited to begin a nature collection to investigate. It seemed to explode overnight and our tables were adorned with vases of fallen tree pieces for months. We were officially hooked. This is when choosing to accept uncertainty of our learning path allowed the children's interests to shine. Whenever it seemed we hit a roadblock and interest was waning, collaboration with my teaching team and walks outside renewed our energy, excitement and inspiration. We returned to noticing, naming, singing, drawing, and dancing around our Cedars. As our relationship to our cedars deepened, a visitor shared the origin of these special trees. We learned the gift bearer was so passionate about these cedars, he ensured the preservation of these trees against his own apprehensions. We marvelled at the greatness of this gift and our role as stewards.



"There are a hundred trees on the playground!"

This comment invited an opportunity to accurately count the trees. With young learners this required many visits in order to develop a successful strategy for counting large numbers of items that cannot be picked up and organized. We worked on identification and found that the majority were Cedars -- 47 to be exact. Children began to develop a relationship with their adopted tree. They were amazed to learn how trees communicate. They imagined their tree as a friend with a message to share. As in Peace Dancer we learned stories of our Place are important. Our stories foster connectedness with the past, empowering us to understand our role as caretakers.



Winter - Water – Visionary

Guiding Question: How do new understandings and connections transform our relationship with water?



Our water inquiry was full of tributaries that flowed out of student misconceptions about water. During our 30-day outdoor learning challenge, the focus of our outdoor education was to develop student capacity to become perfinkers about water. I wanted students to perceive, feel, and think about water differently. My initial inspiration emerged from student comments such as: **“I don’t like to drink water. It has no taste.” “I hate rainy days.” “Is the water we drink dirty?” “Is water animal pee?”**

New questions guided our outdoor work: “Where does water live in us and our community?” We uncovered the difference between salt water and freshwater. We constructed water filters using natural materials we found on our playground. We soon developed an appreciation for the message found in Cloudwalker – an interconnection between Earth and water for the health of people, plants, animals, and our planet.

Our outdoor walks help transform our perspective of water to an entity that sustains life. At first, we marvelled at the ubiquity of water. It lived within us, it cycled through our environment. Water had the power to cancel baseball games, but also to sustain our school garden and make outdoors lush and green. In our storytelling, water transformed from an obstacle to a life force with history of its own. Now in our stories water is personified.



<i>“Please don’t ignore me.”</i>	<i>“Please don’t pollute me.”</i>
<i>“Please leave me in my peaceful place.”</i>	<i>“Sh-Sh..let me listen to the animals.</i>
<i>Don’t waste me.”</i>	<i>“Please don’t hurt me and the animals.”</i>

On our sound walks we uncovered the musicality and soothing quality of water. Rain drummed on our heads and we listened to its beating heart on picnic tables. Rain inspired our onomatopoeia poetry, “Splish, splash, splish, splash, do you care to dance?”



North – Fall – Air - Warrior
Guiding Questions How is the forest a protector of life

In September two things became clear: we loved the outdoors, especially the ground beneath our big Oak tree, and we were fascinated with insects but didn't respect their lives.

During outdoor explorations I could see their exuberant play was fatal to some insects including ladybugs, grasshoppers, and worms. As they withered beside the hot window, I wondered how to teach them to respect and protect life. How could we become a community, working together to protect nature? I posed the question, "What can we learn from nature?"



"Nature teaches us how to care."

"Nature shows us how to be kind to other people and how to be kind to birds and living animals."

"Nature is calm and peaceful. It teaches us to be calm."

"Nature shows us to be respectful to the animals. We let animals be free in the wild."

"Worms show us how to be slow and steady and not rush around."

While developing these perspectives we spent time outdoors by our favourite tree. Once we had spent some time together, we ventured across the street to the mini forest. The mini forest was exciting with so many areas to explore. We rushed around but needed reminders of worms' lesson to slow down, be calm and listen to the nature around us. We had to be slow and steady so that we showed respect for the mini forest.

"Nature shows us respect and kindness. We need to learn not to ruin nature."

Our understanding of respect was evident in that the insects were no longer coming into the classroom. While sharing in the lessons of Orca Chief, we realized the role of trees as protectors of life in the forest.

"The roots help the tree to stay still and so when there is a big wind the trees don't move and the animals are safe."

"The trees have branches that help birds make their nests. When the birds leave their nests another family of birds come."

Through role playing and storytelling outside we imagined trees as respected elders and warriors with stories of survival.



Nature by Design Walk

Most schoolyard/playgrounds show the impact of human beings. What evidence is there that humans have shaped this space? Are there any aspects that are “natural” as opposed to “nature by design”?

Use Emotional Responses & Mental Imagery Cognitive Tools: How does your playground space/design make you feel? Does it invite you to run? Does it make you feel excited to play? Where are its quietest and noisiest places? Think about what your ideal playground/schoolyard space would look like. First write down the details of what it would contain—both natural and human-made. Now using words only, describe it as vividly as you can. Try to evoke images in your friends’ minds. Ask them what they feel when they hear about your nature by design.

Indigenous Connections: The circle is an important formation in relation to First Peoples. It connects directly to the many cycles in nature (life cycles, moon cycles, seasonal rounds). Pow wow dancers dance in a circle. Talking circles are done in a circle formation. A talking circle has everyone at the same level. No one person is elevated. Everyone is respected equally. Everyone has a chance to speak. Natural shapes and colours are often used by Indigenous artists. Paints created from natural pigments and images found in nature can be seen in art, carved poles, homes, and regalia. Instead of people shaping nature, First Peoples often allow nature to shape how they live. This is a part of the reciprocal relationship the land – care for the land and all living and non-living beings, and it will care for you.

First Peoples Principles of Learning:

Learning involves generational roles and responsibilities

- involves all members of a community
- teaching is a shared responsibility
- Elder knowledge is respected and shared



Walking Around vs Walking Into Walk

Follow a route (you choose) within your school grounds. Walk it once and then think about the following: What are you “walking around”? That is to say, what spaces are you circumnavigating? In contrast, what spaces are you walking into? What makes you feel like you are walking around versus walking into a space?

Use The Gesture & Intentionality Cognitive Tools: Figure out how to use your body (no words!) to give the following directions to others: Go around, go through, go beside to the left, go beside to the right, turn sharply right, turn sharply left, turnaround and walk, and walk backwards. (Now try it out in small groups. You and a partner can try to direct a few of your friends.) (*Walking Curriculum*, p. 24)

Indigenous Connections: First Peoples have an understanding of sacred spaces and a strong sense of the importance of protocols. By following protocols, the host creates a good space for work to happen. Sacred spaces might include the floor of a big house. Sacred spaces include the personal space of a drum group at a pow wow. Sacred space might include the personal space of a pow wow dancer. Recognizing the physical space and the sacred space of living and non-living connections encourage all people to think about how their actions impact others. Walking around vs walking into a space shows respect. How do you think children learn about sacred spaces?

First Peoples Principles of Learning:

Learning involves generational roles and responsibilities

- involves all members of a community
- teaching is a shared responsibility
- Elder knowledge is respected and shared

Learning involves recognizing the consequences of one's actions.

- we are responsible for our own actions
- what we do has an impact on others and the world around us



Surrey Centre

Cultivating Stewardship

Darcie Booth—Grade 4



I am fortunate to be working with a group of 28, active, naturally inquisitive Grade 4 students who came to me this year already with a solid foundation in the FPPL (First Peoples Principles of Learning). In recent years, efforts have been made by our Teacher Librarian and Class Teachers at Surrey Centre Elementary to embed Indigenous ways of being, knowing and doing into their practice and student experience in authentic and meaningful ways. We have done this through inviting cultural workers into our school for workshops, school wide presentations and the creation of inquiry boxes. We have exposed

students to rich Indigenous texts that connect us to Place and remind us of the values and character traits we should hold dear. It also helps that many of the students in my class are former Grade 2 (Mrs. Schnare) Buddy class students and our work together on Place-based learning, cognitive tools of Imaginative Ecological Education and FPPL spans over 3 years with some of these students. I value the opportunity this inquiry project has provided for me to collaborate with Mrs. Schnare. It is wonderful professional development for me to mindfully observe how she weaves FPPL into all aspects of learning

This year, our Grade 4 & Grade 2 Buddy sessions' focus has been on cultivating stewardship by connecting to our Place and school garden using the cognitive tools in the WC (Walking Curriculum) through a FPPL lens. At Surrey Centre Elementary, I have invited classes to join us outside on our walks and what I have found is that the Walking Curriculum resource is a great Buddy activity to explore our Place with intention and to practice FPPL. Our favourite Places to walk and talk are around our newly created school garden (and surrounding area) and the forest/gardens at the Surrey Cemetery across from our school.

"My favourite buddy activity so far is the colour walk (cognitive tools engaged in this walk include metaphor, extremes & limits, and the literate eye), because there is evidence of change all around us and we talked about what we think will happen next. It got us thinking, how long have these trees been here?"



Shortly into the challenge, we discovered that our students' curiosity was leading us all to dive deeper into uncovering how our community and school Place has changed over time and to know more about the people who lived on and cared for this Place before us.



We looked to the FPPL and selected the following as our focus while heading out to explore our Place: Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). Many of our early post-walk discussions demonstrated positive feelings towards our shared Place and nurtured relationship-building as a newly formed class and between Buddy partners.

“When I walked with my little buddy through the forest and showed him the trees I planted a few years ago, it made me proud. I think it made my little buddy pay more attention to nature and ask me good questions. It made me think I would like to ask an Elder about the plants around here, the ones I didn’t plant”
(cognitive tools: story, sense of wonder, and heroic qualities).



Our commitment to being outside in all kinds of weather bonded us as multi-aged stewards of this land. During our Umbrella Walk/Planting (cognitive tools: change of context, mental imagery and senses).

“I wasn’t happy about walking to the garden to plant tulips at first because it was raining so hard but once I saw how happy my little buddy was to see me, it made me think how happy we both will be when the tulips grow. It got me thinking, the rain is good because it will help the plants grow. If we didn’t have rain here, we would be in trouble”.

Our second FPPL focus was exploring how “Learning is embedded in memory, history, and story.” In addition to reading great Indigenous stories that connect to Place, we had a District Cultural Facilitator visit the class to share the importance of Place when examining and making Indigenous music, instruments and art (cognitive tools: rhyme, rhythm & patterns, games, drama & play). In the presentation she spoke specifically about the Katzie, Semiahmoo and Kwantlen First Nations groups because that is showing respect to the land we are learning on. This presentation sparked students to create a variety of Genius Hour inquiries connected to the Coast Salish groups, instruments, and local animals.



The excitement surrounding our school community garden has been a source of joy and wonder for our combined classes. As a parallel activity to our harvest, we studied the Wapato (cognitive tools: story and heroic qualities) and the Katzie people’s plan to restore this plant to their territorial lands. It had been our hope to continue the conversation about Wapato with cultural workers who had previously been at our school and visit a Katzie site that was harvesting Wapato. Unfortunately, this event did not work out for us this year. In the winter months, the little buddies introduced us to their discovery of Stinging Nettle growing in our Garden. The little buddies’ curiosity and knowledge about Stinging Nettle sparked interest within the Gr. 4’s that included investigating the plant’s uses and other such plants that are original to our Place.

As spring rolls around, our walk and talk has returned to planning and planting our school garden. The students’ reflections suggest they would like more opportunities to be actively learning outside and about our Place. I am pleased to see that connecting students to Place while at school has also inspired them to do so in their own free time and in a variety of other outdoor Places. Ultimately, it is our hope that continued use of the Walking Curriculum and FPPL will lead to a long term, authentic emotional connection to nature and environmental stewardship.

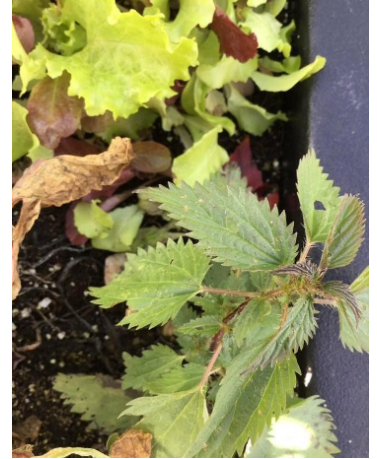
SURREY CENTRE

Shared Stewardship

Sarah Schnare

The excitement surrounding our school community garden and outdoor learning space has inspired us to focus on connecting to the local environment. Students are engaging in Walking Curriculum experiences and we know that time spent actively learning outside is waking up curiosity about our Place.

When we listen closely to the land, what stories are waiting to be told about the plants, animals, and people who came before us? How does understanding this relationship to the land help nurture our sense of Place through emotional connections? How does it grow our stewardship?



While harvesting beets from our school garden in the Fall, one of our classmates was stung by nettle. The stinging nettle was not something that was planted by us, and we wondered: What is stinging nettle? How did it arrive in our garden? What can we learn from nettle?



We turned to our Indigenous Plant cards to learn more about stinging nettle and read about how many ways that it is helpful. We were gifted some nettle tea and deepened our understanding of traditional knowledge and stewardship. More reading uncovered an idea from Vanessa Cooper, who says, “Oh I just love nettle! She reminds us to pay attention.” We spent time unpacking what this might mean:

“Be careful and pay attention to what you’re touching.” -KW “Don’t look away if you’re going to touch something.” -LD

“Paying attention and being afraid is kind of the same but paying attention is not being afraid.” -SD

“Being scared is letting your fear go wild.” -CH

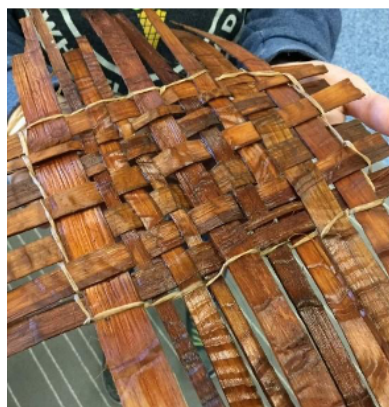
“It’s the opposite because if you’re afraid you go back and if you’re paying attention, you go forward.” -TJ

This discussion was really important to how we were feeling about working with stinging nettle and understanding its importance as a part of our ecosystem. Many of us were feeling cautious about having our hands in the garden after what happened and unsure about looking closer at this plant. We realized we could try to move forward with our thinking by paying attention rather than being afraid. *Emotional Attachments* to stinging nettle began to form, and so did our understanding of reading the land.

One student brought in her Wonders of Nature book because she'd discovered more information about stinging nettle. We learned about the tips of the hairs breaking off and liquid chemicals causing skin irritation. We read about caterpillars moving between the hairs and knowing how to live on the plant without disturbing the hairs in a reciprocal relationship. We decided to look closer at nettle through the help of a digital microscope and were fascinated by how sharp the hairs were and how different their thickness was from the base to the tip. We also saw living organisms in the soil and on the plant. This gave us a close-up view of how stinging nettle can be both dangerous and helpful. Looking at nettle through the lens of binary opposites opens up the idea of balance in nature and provides a context for us to consider other relationships in our environment. (*Binary opposites* is one of the cognitive tools of Imaginative Ecological Education that engages and grows imagination.



A local plant that we set out with intent to learn more about is the cedar tree. We mapped its location on our school grounds as one of our “shady giants”, learned to identify it by its defining features, and read about its shared respect among all First Peoples communities. We were gifted with a visit from Nadine McSpadden, one of our Aboriginal Helping Teachers, who shared the respect and gratitude that is shown when giving thanks to the cedar while harvesting its bark. Students learned about the process of preparing the inner bark and were invited to experience weaving with cedar. This process evoked a newer and deeper appreciation for the patience and time involved in both creating from the land and learning new skills. I noticed a huge shift in students’ emotional attachments to cedar when they learned the cultural practice of gifting their first creation of a new skill to an Elder who has passed some learning on to them.



The connectedness of this experience was felt so clearly by the learners: The cedar gave its bark to me, and I can show respect and gratitude to the tree, and to those around me. I look forward to seeing the understanding of this reciprocal relationship grow as students continue to form emotional attachments to their local environment. Robin Wall Kimmerer says, “Our indigenous



herbalists say to pay attention when plants come to you; they're bringing you something you need to learn.” We are learning to listen closely for opportunities to learn from the land. The reciprocal relationships that exist between people and nature are grown through emotional attachments to Place. The binary opposites that live within those relationships teach us about balance and move us forward in our thinking and understanding.

William Watson

A Garden Circle Christine Syms

The story begins... a new school year, many new staff and the school population growing. More than a year ago being granted the permission to begin a school garden, but the frustration of waiting more than a year for the ground to be prepared for the bins. A passion for connecting students using Place-based learning. And a mulched circular space where a large Douglas Fir tree stood less than a year ago. So, what do we do?...Create our own circular garden involving each class in the process. The ultimate vision is to create a welcoming space for all to enjoy by focusing on the story it creates by weaving in the First Peoples Principles of Learning and using the cognitive tools of Imaginative Ecological Education.



We decided to begin small with adding some colour using bulbs. The guided mini lesson with each class began with an acknowledgement of the people who came before us and land where we are. With most of the classes, I incorporated some knowledge about three indigenous bulbs and the First Peoples teaching about only taking what you need so that there will continue to be some for all. Two of the bulbs we looked at are now protected due to over harvesting. We talked about the bulbs we commonly eat today and then the bulbs we would be growing for the beautification of our school.

During the time in this place some students recalled that there used to be a tree in this spot and a couple students from my last year's group recalled us using this tree for story-telling and how its branches helped us with our tarp. While working through the lesson I heard from students, "This is so cool!", "We get to do this? Wow!", "Will we plant another tree in this spot?" and from teachers I heard, "This was really great.", "I never knew that before."



At the end of the lesson each class was given some work to do thinking forward to our garden bins. The intermediate classes were asked to think about sustainable gardening and how this could work in a school garden and the primary classes were asked to think about three items we could grow and why they think these would be important for the garden.

This lesson utilized both First Peoples Principles of Learning (FPPL) and the cognitive tools for Imaginative Ecological Education (IEE). The guided lesson took place on the site where the garden will be located engaging the body in a sense of relation (IEE). I hoped that by being in this place both staff and students will begin the form emotional attachments to this place. This hands-on Place-based learning recognizes that learning is holistic, experiential and relational focusing on connectedness and developing a sense of place (FPPL). Within the lesson I shared what had been learned about First Peoples cultivating and harvesting practices recognizing the role of indigenous knowledge. Working through the lesson we engaged the tools of orality as we all shared our understandings through discussion while we began to create this new story about this place together (IEE). This learning ultimately supports the well-being of the self, both staff and students, the community, the land, the history and now becomes a new chapter in the story of William Watson Elementary.



Human Impact Walk

For this walk, plan a route where the impact of human activity is clearly visible (e.g. an industrial area, by or through a shopping mall, or even a well-used trail in the woods or a park).

Ask students to imagine what the Place might be like if people had never been there. *What might be here that isn't? What is here now that might not be? How might the area have looked 50 years ago? A hundred? A thousand? How might we reduce our impact on the area now or restore features that have been lost?*

Use The Mental Imagery and Story-form Cognitive Tools: Students can complete writing or drawing exercises imagining what the area looked like in the past and envisioning what it might look like in another hundred years if the human impact continues. You can introduce or follow up a human-impact walk with readings about the area, examination of old maps and/or drawings related to the history of the area. You might ask students to do some research into the Place names—e.g. the school name, neighborhood name, street names—what do these stories tell us about the Place? (*Walking Curriculum*, pp. 43-44; Modified from Rothschild, 2004).



Indigenous Connections: The First Peoples of Canada have always lived on this Place we call Canada. Imagine the lives of First Peoples before contact? One of the Indigenous worldviews that many First Peoples have is that we live in harmony with the land and maintain a reciprocal relationship with all living and non-living beings on the land. It is important to always consider how our footprints will impact generations still to come. Do you know of any Places that are sacred spaces to local First Nation communities? How are those places protected?

First Peoples have been impacted by a number of effects of colonization. When settlers and newcomers arrived on this land, they did not understand the Indigenous ways of being, knowing and doing. As a result, they tried to control how Indigenous peoples should live. One of those controls was to force all Indigenous peoples off their traditional territory and onto reserves so the land could be given to settlers. This form of human impact continues to effect how Indigenous peoples are able to live today.

First Peoples Principles of Learning:

Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.

- Each learner is recognized for their skills and strengths
- Learning occurs in many different ways
- Learning is connected to the land, the culture, the community

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).

- Involves the whole learner: physical, mental, social/emotional, and spiritual
- Life experiences are seen as a part of learning
- Learning builds new knowledge through reflection, through experiences, through the interconnected relationships with the world

Systems Walk

On this walk, ask students to identify parts of a given system in the area in which they walk. For example, students can identify evidence of natural systems (e.g., the water cycle, food webs) or human-built systems (e.g., transportation, sanitation). Questions for consideration: *What are the different parts of the system? How do the parts connect? How could the system be improved? If students are looking at a natural system, how do people impact this system? What evidence is there of these effects? If students are looking at a human-built system, what can they observe of the impact of the system on the environment? What alternatives to the system can they imagine?*

Use the Collect & Organize Cognitive Tool: Have students “collect” all the evidence they can about systems they observe in Place. Ask: What patterns emerge? How/Where do systems intersect? Students may draw flow-charts to reveal intersecting processes and patterns. (*Walking Curriculum*, p. 44; Modified from Rothschild, 2004).

Indigenous Connections: First Peoples have been stewards of the land since time immemorial. Their knowledge of the land and all living things on it gives them knowledge to harvest resources in a sustainable way. First Peoples understand the life cycle of a cedar tree and know only to harvest once in the lifetime of a tree. First Peoples understand the life cycle of the salmon and know to take only what they need and to honour and respect the salmon. By understanding their roles and responsibilities as stewards of the land, First Peoples have been able to live and thrive in their traditional territories. Contemporary societies mean that changes are made to the ways in which some things occur. Today some natural systems are impacted by urban expansion. How might the protocols of Indigenous stewardship help to rebuild natural systems?

First Peoples Principles of Learning:

Learning recognizes the role of Indigenous Knowledge.

- Indigenous peoples have a vast knowledge of the relationship between living and non-living
- Knowledge is ecological, scientific, and land based
- Knowledge is continually growing, changing and shared

Learning is embedded in memory, history, and story.

- Teaching and learning is shared through oral traditions
- Includes stories, histories, cultural knowledge and makes connections to the natural world



Reading Place Walk: The Human Story

“The story of the land is brought alive by directly interacting with it” (Beames *et al.*, 2012, p. 8).

Every Place tells us a story; aspects of that “story” include diverse socio-cultural, geo-physical, and ecological dimensions. The human story of the land: who lives and/or worked here 50 years ago? 200 years ago? 2,000 years ago? How have they shaped the land? What is their story? Who own the lands? Who is “using the land and for what purposes?” (Beames, *et al.* p. 53)

Ask your students to walk the local community seeking evidence of the following four dimensions of the human story (inspired by Beames *et al.* 2012):

- *the cultural aspects of a Place—What evidence is there in this Place of what the culture or society values? What are its priorities?*
- *environmental issues/concerns—What evidence is there of different concerns about the health of the place? How are the people in this Place conserving/preserving/restoring it?*
- *the business and economic development in a Place—What examples are there of local economic activity? Who owns/operates local businesses? Who benefits from the trade?*
- *social responsibility—How are people taking care of this Place and each other here? What evidence is there of social responsibility?*

Use The Story-form Cognitive Tool: Have your students imagine they are reporters responsible for creating an engaging (but brief) account of the Place. *What’s the dominant story in this Place? What human interests have most shaped this Place? What tension exists in this Place? Where are two different needs/desires coming in conflict?* (e.g. How are nature and “empire” (humans) at odds?) Ask them to start by creating a “headline” that emotionally captures something about the human story of the Place. They could then report in 1-2 minutes the content of their “story”. (Try to combine knowledge about the “human story” of the Place with the large community map you have created in the previous activity. What can be added to show the diversity of the Place?) (*Walking Curriculum*, pp. 49-50).

Indigenous Connection: Connection to land and place is significant to First Peoples. Understanding that the First Peoples have an intimate relationship to place (their traditional territory) is key. Their history, their stories, their knowledge and their being are all connected to land and Place. Stories retelling their history include landmarks such as rock formations, pictographs, and mountains. They have always been linked to Place. Because of this intimate relationship with the land, First Peoples understood the importance of being stewards of the land all its resources.

First Peoples Principles of Learning:

Indigenous knowledge. Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors. Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.

- Each learner is recognized for their skills and strengths
- Learning occurs in many different ways
- Learning is connected to the land, the culture, the community



Contributors

Dr. Gillian Judson is an Assistant Professor in the Faculty of Education at Simon Fraser University. She teaches in Educational Leadership and Curriculum and Instruction programs. Her scholarship looks at imagination's role in leadership and learning (K-post-secondary). She is particularly interested in imaginative and ecological teaching practices.

Heidi Wood is an Indigenous Education Curriculum Coordinator with the Delta School District #37 and a long time participant with the Network of Inquiry and Indigenous Education. As an educator with mixed First Nations and European ancestry, it is her goal to support teachers with a deeper understanding of Indigenous perspectives in the BC curriculum. She strives to model the First Peoples Principles of Learning in her work as she engages in experiential learning for all.

Dr. Judy Halbert and **Dr. Linda Kaser** lead the Transformative Educational Leadership Program at the University of British Columbia and the Networks of Inquiry and Indigenous Education. They are deeply committed to achieving equity and quality for all learners—and to networking across systems. They are the co-authors of *Leading Spirals of Inquiry* (in press 2022) *The Spiral Playbook* (2017), *System Transformation for Equity and Quality* (2016), *Leadership Mindsets: Innovation and Learning in the Transformation of Schools* (2009) and with Helen Timperley, *A Framework for Transforming Learning in Schools: Innovation and the Spiral of Inquiry* (2014).

Inquiry Partners:

Darcie Booth
Jessica Boss
Melissa Cho
Kim DeSchutter
Kerri Hutchinson
Vanessa Mercado
Charlene Penich
Shane Reader
Brittany Roosen
Lora Sarchet
Sarah Schnare
Cole Stewart
Christine Syms
Amy Wilder
Johnny Zvi

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***This text contains an actual path of walking-related/inspired quotes. Genius.

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Walking Forward: Walking with a First Peoples Focus (Learning from Place)

<https://walkingforwardfp.weebly.com/>

When Nature Speaks: Land and Math Connections

2-MATH CONTENT.pdf