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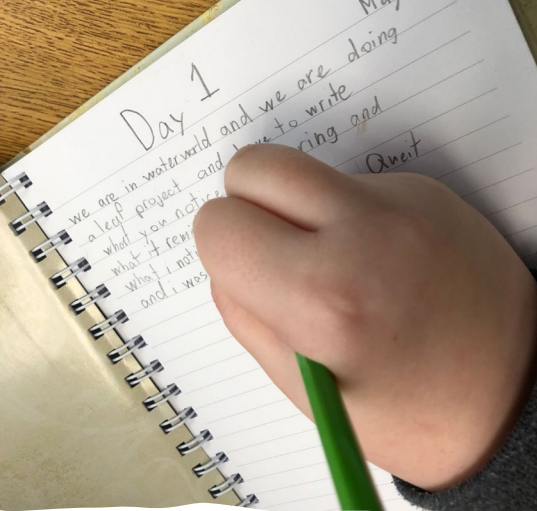
"Those who journal, write, and sketch regularly are better learners. They are more connected to their surroundings, develop identities within their community, and gain the ability to look outside of themselves and reflect on their lives."

LAWS, LYGREN, BREUNG, LOPEZ. 2012

What is a Nature Journal?

The journal is a tool that helps students and teachers capture their thinking when venturing into the natural world. The expressions, drawings and images are a window into how we respond to forest walks and beach explorations. What students think about, while watching the ravens chase each other or the shore crabs scuttle in the tidal pools, is often hidden from us. Yes, we have conversations and we guide our students' thinking when debriefing the signs of erosion along the creek bank, but what about their sense of connection to the planet? How do we know how or what students feel about being in place? What are the things that they will remember; years from now?

The journal is a window into how students are responding to the natural world. Our role is to facilitate interactions between the learner and the environment; to help students think deeper, to notice more of what is around them and to nurture their curiosities. Many thoughts and feelings come up when peering into the night sky. A guided, written reflection, (led by the teacher) helps the student make deeper meaning of their observations. Other times, the journal is place to play with no instructions other than "use colour and try a sketch from an interesting perspective".

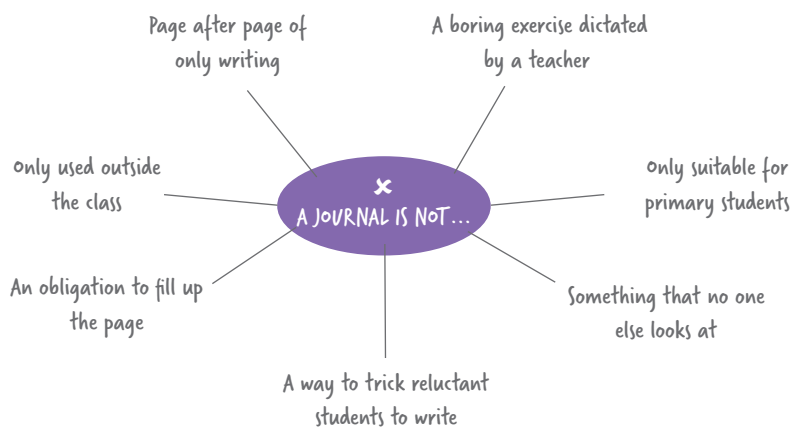


What a Journal Is Not

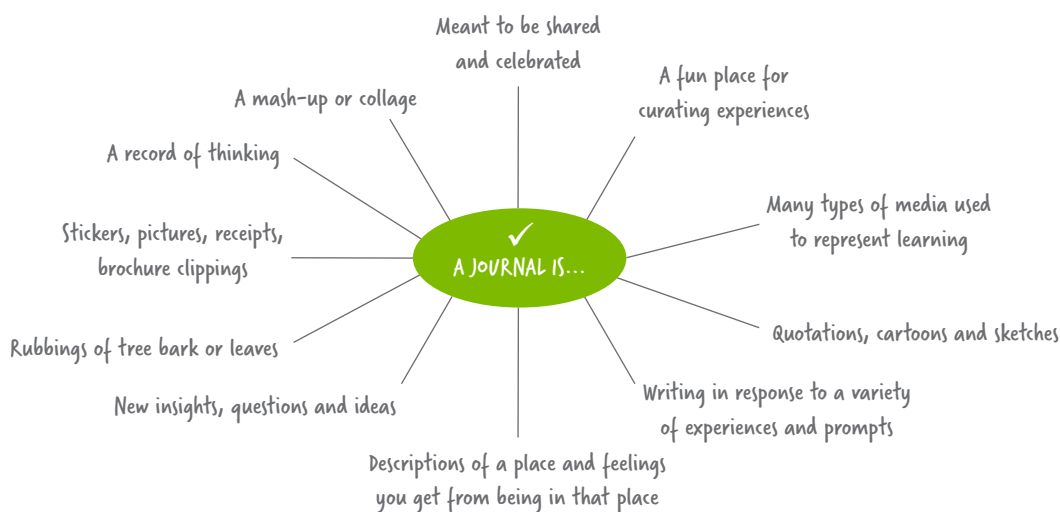


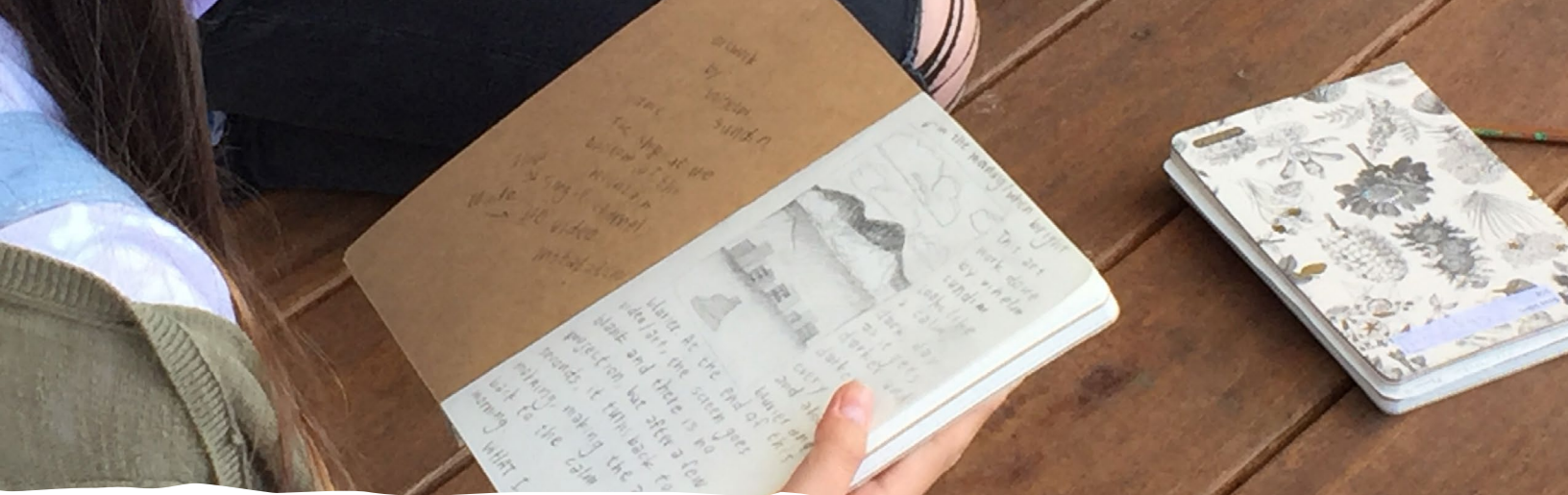
"Journaling is the single, most powerful tool to supercharge your observation, memory and connection with nature. The goal of nature journaling is not to create a portfolio of pretty pictures but to develop a tool to help you see, wonder, and remember your experiences. You can learn to do this. You do not need to be an artist or a naturalist. These are skills you will develop as you go."

JOHN MUIR LAWS/EMILIE LYGREN, 2020



What a Journal is





Why Create a Nature Journal?



"Using journals actively engages students in their own learning by creating opportunities to clarify and reflect upon their thinking. They help us slow down and fully experience and examine something."

**CAMPUS CALGARY/
OPEN MINDS PROGRAM, 2017**

The word journal often brings a classic image to mind; a book (partly full) of personal writing, perhaps held shut by a cute, little lock. Eventually the journal finds its way into a box; discovered years later; evoking childhood memories through "Dear Diary..." entries. This nostalgic image of a journal shares little with the reality of a nature journal. It is a resource (a tool) that curates memories; deepening connections to the environment through reflecting on experiences in natural and urban places. Most activities are suitable for some type of journal entry.

The use of journals is referenced in many HCTF materials. It is a tool to help surface the interactions between students and natural world; a window into what is going on for our learners while immersed in place-based learning experiences. Deeper thinking emerges when reflecting upon nature-based experiences. There is great value in students recording, responding and reflecting on the time spent in nature. But what does that "look like"? How do you start a journal? An HCTF facilitator can suggest some strategies to get started or refer to the on-line resources.

This week at City Hall has changed me because I learned more about democracy and how to government is fair.

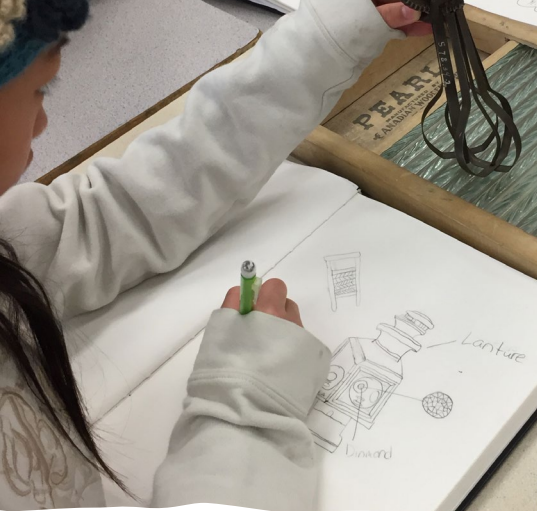
When I grow up I am going to change Edmonton by ending poverty and homelessness.

- City Hall School 2016, Calgary School Board

A journal entry by a student who went to city hall to learn about democracy and municipal government.



A journal is a window into how learners are responding to nature and place-based experiences. The blank page invites personalized responses. The tool "makes thinking public" and invites learners (including educators) to express what they know, how they have come to know it and the significance of the learning; in diverse and multi-modal ways. Journaling offers a platform to celebrate/curate diverse forms of expression. It is a safe place to unpack your thinking.



Connecting to Place Through Reflective Thinking

There are references to place-based learning throughout the BC K - 12 curricula. Not only does the B.C. Ministry of Education emphasize the importance of learning in natural and urban spaces for all grades, there is substantial research about the social-emotional and academic benefits of being in nature.

Many curricula across Canada emphasize the importance of critical and creative thinking. Not only do these skills appear in all subjects, at all grades, they are essential for success throughout life. In B.C., students reflect on their Core Competency development at the end of each school year. Journals are an ideal tool to foster this type of reflective thinking and are an opportunity to build more authentic assessment in daily classroom activities as we ask students to show their understandings of big ideas and essential questions.

Place is any environment, locality, or context with which people interact to learn, create memory, reflect on history, connect with culture, and establish identity. The connection between people and place is foundational to First Peoples perspectives of the world.

Key questions for prompting journal reflections based on the K – 12 Science curricula:

- How does what you know about place affect questions, observations, and predictions?
- How does your understanding of place affect the ways in you collect evidence and evaluate it?
- How do the place-based experiences and stories of others affect the ways in which you communicate and collaborate?
- How can you demonstrate an understanding of place and interconnectedness?
- How does understanding place help you analyze information and recognize connections and relationships in your local environment?
- How can you be a steward in your local environment?

The curriculum intentions have given educators permission to look outside the classroom for “real world” learning environments. These opportunities can be supported by using journals in purposeful and creative ways.



“What and how we teach our students has been redesigned to provide greater flexibility for teachers. Learning can take place anywhere, not just in classrooms. Many schools and teachers create environments that explore the use of time and space in creative ways... that adapt to students’ needs and interests”.

[HTTPS://CURRICULUM.GOV.BC.CA/CURRICULUM/OVERVIEW](https://curriculum.gov.bc.ca/curriculum/overview), 2020



Getting Started with Nature Journaling Supplies, Ideas, and Prompts

There are a few essential items that provide a foundation for an engaging journal experience. The activities and strategies listed in the grade modules (separate PDFs specific to primary, intermediate and secondary groups) all use these basic materials. Additional items are listed where needed.

Essential Supplies



"Used strategically, journaling can help students to observe deeply and to engage in other science practices. Journals also provide an invaluable venue for student reflection- both during the field experience, and later if students revisit their journal entries after they return home."

BETLES PROJECT, 2020

For students:

- Any book with blank pages or partly lined (possibly hardcover)*
- Pencil, pen and eraser
- Something to sit on
- Clothing to suit the weather

For teachers and parents:

- Pencil crayons (felts do not allow for subtle colouring/shading)
- Binoculars
- Magnifiers or Jewellers Loupes**
- A journal
- Device for taking photos

Notes:

*Opus Art Supplies has a wire bound book that will last all year:

- 5.5" X 8" Canson Universal Sketch Pad (Item # CAN702191)
- Schools may receive a 20% discount from the list price of \$8.30

**Habitat Conservation Trust Foundation sells magnifiers with protective covers

**Jewellers Loupes allow students move the object closer to their eye to see the details. They are available through Science Is (<http://www.science-is.com/>) or pastirik@science-is.com



Framing the Experiences



"Nature journaling is the perfect way of understanding the significance of quantitative and qualitative observations as well as the differences between inference and observation. Practicing these concepts compels observers to gather information that might otherwise be overlooked."

**DANAE SHIPP IN GREEN
TEACHER. OCT., 2017**

Nature journaling is a creative, responsive process that requires all the senses to observe, document and reflect. This requires "noticing things" on a deeper level. What are the landscape patterns, the soil textures, the moss colour hues, the cone structures, the insect sound qualities, the subtle smells? Depending on age and experience level, you might ask the students to provide detailed documentation of animals and plants they encounter. Leaf drawings could be labelled, a stream sketched (from a variety of perspectives) or curiosities listed that result from noticing behaviours/interactions of insects.

This ability to thoughtfully express observations about the natural world, with deep engagement and accuracy, is new for many of us. Encourage students to truly "notice" and emphasize that the forest walk or beach observation is school. Given time, ownership and the opportunity for personal response, students quickly adopt journaling "habits of mind".

Just as importantly, journaling sessions are an opportunity to learn about ourselves as we immerse in/engage with the natural world. What do we feel in this place? What do we notice about ourselves when spending time in a sit spot? Asking students to share what they experience when sitting alone may feel risky for some. Be authentic! Share what you feel when sitting by the lake shore or next to the towering cedar tree.



I felt a bit of joy to be outside in nature. I also felt a bit of happiness of the chance to some leaf and also to find them in the creek."

— October 2018: Grade 5 Feeling Walk.



Routines and Structures

The facilitator and/or teacher arrange the observation sessions based on a number of factors: the students' needs, previous place-based experiences, curriculum intentions and, most significantly, the environment. Consider an "outdoor learning" guidelines chart to distinguish between free play time versus structured, activity time directed by the teacher.



Personalized learning focuses on enhancing student engagement in learning and giving students choices — more of a say in what and how they learn — leading to lifelong, self-directed learning...

Personalized learning also encompasses place-based learning, where learning experiences are adapted to the local environment or an individual context.

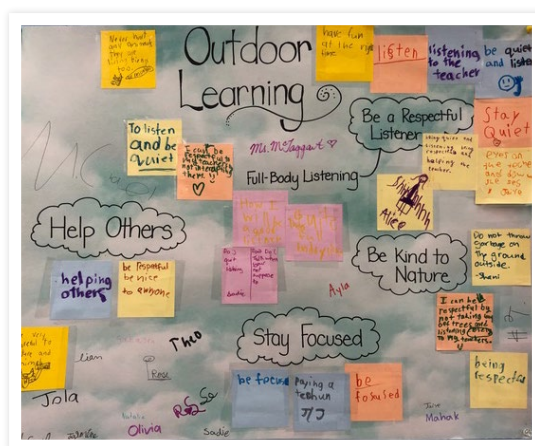
[HTTPS://CURRICULUM.GOV.BC.CA/CURRICULUM/OVERVIEW](https://curriculum.gov.bc.ca/curriculum/overview)

Sense of Purpose

- Tell students the learning goals, targets or intentions.
- As they work, notice what support is needed when recording observations.
- Acknowledge those who quickly settle in their sit spots/focus on the task.

Time-in-place

- We can learn a lot about students' connection to natural spaces and places, though reflections and representations captured in a journal. But they need the time to observe and record; preferably on their own.
- Yes, there will be intentions for the session but be open to the unexpected arrival of an owl or squirrel or insect.



Choice

- Within the time and space is choice. Generally, students decide where to sit, what to observe and how to draw. There may be a soft end; they return when the observations are complete.
- These experiences are infused with a sense of freedom!
- The responses that emerge from these interactions are unique to each individual. Nature-based learning is automatically personalized through how each student responds to the environment.
- Be attentive and responsive to the individual needs. Sometimes choices can be provided "within a range" if sitting and observing is too open-ended.



Talking/Sharing

Student talk (either partner exchanges, small group conversations or whole class discussions) are good opportunities for noting students' responses to the natural environment. If the task had a specific focus, ask for their explanations and reasoning. Prompting questions could be: "What led you to that decision?", "Has your thinking now changed during our discussion?", "Which piece of evidence did you find that was different than the others?"



A journal is a window into how learners are responding to place-based activities and experiences.

Empowering the learner to express what they know, how they have come to know it (and the significance of the learning) in diverse and multi-modal ways, opens up windows into thinking. Journaling provides an opportunity for personalized learning and a platform to curate and celebrate diverse forms of expression.

DAVID BARNUM

Gathering with the entire class before, during and after the activity is essential to scaffold understanding, building knowledge and foster curiosity. Sharing and building on each other's observations and insights should be woven into each lesson. The BEETLES Project offers a number of discussion strategies for all grades through demonstration videos and free activity downloads: <http://beetlesproject.org/resources/for-field-instructors/walk-and-talk/>

Support/Feedback

- Give appropriate and specific feedback, framed in an appreciative way.
- Comment on observations and the strategies used to record them.
- Be non-judgmental.
- Circulate and support all students.
- Don't say "that is really pretty" or "What a good drawing" or "You are a great artist."
- You could say "The looks like insect damage on that leaf you have illustrated. It helps me identify which plant you were looking at." Or "You created a scale next to your drawing. That helps you remember this plant when you explain your observation to the other students."

Nature journaling helped me appreciate the environment a lot more than I used to. I learned how to describe my surroundings a lot better and use more descriptive words. I learned about the different signs of nature, how humans change nature, and many more things."

— Student Quote from Danae Shipp in Green Teacher Oct., 2017





SCIENCE FIRST PEOPLES
TEACHER RESOURCE GUIDE:
GRADES 5 TO 9, FNESC, 2016

The students' thinking, represented in the journal, allows educators deeper insight into the meaning-making that is fundamental to living a life connected to nature.



HCTF Education



HABITAT CONSERVATION
TRUST FOUNDATION

Inspirations / Journaling-In Action / Recommended Resources

Guides and Reference



"Journals are indispensable and ubiquitous tools in natural history and science, and if journals are used well in outdoor science programs they can become an equally powerful part of a field instructor's 'toolkit.'"

BEETLES PROJECT, 2020



"What's important is that children have an opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds'."

DAVID SOBEL

- *How to Teach Nature Journaling: Curiosity • Wonder • Attention*
John Muir Laws and Emilie Lygren
Heyday Publishing, 2020
<https://emilielygren.com/product/how-to-teach-nature-journaling/>
- *The Laws Guide to Nature Drawing and Journaling*
John Muir Laws
Heyday Publishing, 2016
- *Pop-Up Studio*
Misty Paterson and Janice Novakowski
Circularity Press, 2019
- *Keeping a Nature Journal*
Clare walker Leslie and Charles Roth
Elegance, 2003
- *Journal Keeping: How to use Reflective Writing for learning, Teaching, Professional Insight, and Positive Change*
Dannelle Stevens and Joanne Cooper
Stylus Publishing, 2009
- *The Curious Nature Guide: Explore the Natural Wonders All Around You*
Clare Walker Leslie
Storey Publishing, 2015
- *Bird, Egg, Feather, Nest*
Maryjo Koch
Flying Fish Books, 1992
- *Keeping a Nature Journal: Discover a Whole New Way of Seeing the World Around You*
Clare Walker Leslie and Charles E. Roth
Storey Publishing, 2000
- *Alter This: Radical Ideas for Turning Books into Art*
Alena Hennessy
Lark Books, 2007
- *Using Thoughtbooks to Sustain Inquiry*
The Critical Thinking Consortium, 2016
- *Personal Geographies: Explorations in Mixed-Media Mapmaking*
By Jill K Berry
North Light Books, 2011
- *Seeing the World in 3D: Learning in the Community*
Gillian Kydd,
Trafford Publishing, 2005

Fiction Books

- *Beautiful Oops!*
Barney Saltzberg
Workman Publishing Company, 2010
What might be considered a “mistake” is an opportunity for creativity in grades K – 7.
- *The Boy Who Drew Birds: A Story of James Audubon*
Jacqueline Davies/Melissa Sweet
Houghton Mifflin, 2004
The true story of how John Audubon's for passion for painting/observing birds led to the banding technique for tracking bird migration.
- *What Do You Do With an Idea?*
Kobi Yamada and Mae Besom
Compendium Inc., 2013
A K – 7 read aloud that can prompt students to use journals in exploring ideas, curiosities and inquiries.
- *Robert Bateman: The Boy who Painted Nature*
Margret Ruurs and Robert Bateman
Orca Book Publishers, 2018
Photographs, artwork and images document the life story of BC resident Robert Bateman.



“Journal writing works because every time a person writes an entry, instruction is individualized; the act of silent writing, even for five minutes, generates ideas, observations, emotions.”

FULWILER AND YOUNG, 2000

Organizations and Websites

- BEETLES Project: <http://beetlesproject.org/resources/for-program-leaders/field-journaling-with-students/#1447702870437-ba804ab5-cb15>
An excellent source of free lesson plans, slide shows and student activities to support the use of journals. If you only have time to access one website site, go here!
- John Muir Laws: <https://johnmuirlaws.com/>
Author and advocate. for nature journaling, John has a number of free resources available and has published amazing reference books; one available as a free download.
- Campus Calgary/Open Minds: <https://cbe.ab.ca/ccom/Pages/Home.aspx>
Campus Calgary / Open Minds is an innovative school program that brings the classroom to vibrant community settings. Teachers, students and community experts come together for a week-long curriculum-based experience, designed to meet the needs of each individual learner. Journals are the key tool used to reflect on place-based experiences. Journals are the main learning tool used by all the students.

***If you want the students to truly buy-in to the importance of reflective thinking the adults must model the process. Whatever your role - nature education facilitator, teacher, environmental organization staff or parent... “walk-the-talk” and create your own journal!