Nature Journaling + Distance Learning Emily Porter, Education Director Osprey Wilds Environmental Learning Center

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What is a Nature Journal?

Purpose = to record information about the natural world for later use--this could be an art project, a piece of creative writing, science study, or personal learning etc. Nature journals can look a lot of different ways, the purpose isn't to look 'pretty'.

Primary Features:

- Date and location, weather
- Detailed written observations
- Visual representation
- Purpose
- Questions

How to teach students to journal:

- 1. Develop a curiosity mindset, about the natural world in particular
- 2. Show models/examples of other nature journals
- 3. Incorporate purposeful practice
- 4. Repeated application + student autonomy
- **1. Practice Curiosity:** Good journaling comes from good questioning
 - What do you notice?
 - O "Noticing" is grounded in real-time observation, rather than assumptions or opinions. You can notice that the leaf has small holes in it, but cannot assume that it was eaten by bugs--unless you see a bug eating the leaf!
 - What do you wonder?
 - O Letting students' questions surface can take the class on an interesting learning journey that opens learning for everyone
 - What does it remind you of?
 - O Using other contexts and previous experience can sometimes help you make sense of things you are observing.
 - O Another way to use this is to allow students to make connections to their own lived experiences, their own background knowledge and culture

The act of drawing forces you to attend to details you might otherwise miss, focusing your attention. Asking students to create a visual representation will build observational skills.

Differentiation:

As you go through the "I wonder, I notice, It reminds me of..." process, you may identify gaps in knowledge and/or weaker skills to circle back to and revisit with students. Some of these may be:

- Describing words/adjectives
- Fact vs. opinion

- Pattern recognition
- Broad vs. narrow questions
- Hypothesis/scientific method

2. Show examples of other nature journals

What is the benefit of looking at model texts for students?

- Can see different examples of what nature journals can look like. It's important to show a variety of types of journals, so if a student gets stuck on limitations they feel about their own nature journal or work.
- Ask students: "What do you notice about the model texts?"
 - O It is important for students to walk away with the knowledge that nature journaling can look differently and there are many ways to approach it

3. Purposeful Practice: Clear purpose will improve product

One recommended activity to give students a clear purpose is Recording for Identification: <u>In the Field...</u>

- 1. Select a leaf.
- 2. Direct students
 - a. Find a leaf that is the same shape.
 - b. Create a journal entry for your leaf so that your classmates can tell which leaf is yours (give them about 7 minutes, not shorter than 5, not longer than 10).
 - c. When finished put the leaf in the center with the other leaves. Then place journals nearby on the ground. Students have to pair a different journal with the leaf it identifies.

Distance Adaptations:

- Students can use household or backyard items to complete activity
- Items must be organic, so that they have natural variation!
 - O Ex: garlic cloves, clementines, collection of dog bones (similar/uniform items with their own variation and distinctions)
- Teacher can provide an image for students to nature journal from
- Students can share journal pages digitally by posting photos

4. Repeated Application emphasizing student autonomy

Use the following tools for lesson planning to incorporate the practice regularly with your students. Emphasizing appropriate student choice with nature journaling will build curiosity and intrinsic motivation for the learning/activity.

Implementation: Set reasonable goals for yourself and your students

- 1. Start by engaging curiosity
- 2. Consider frontloading activities
- 3. Look at models
- 4. Purposeful practice (be ready to do this more than once)
- 5. Meaningful application

Now What? Distance Learning Applications

What are you as a teacher hoping that students will get out of this?

- Mental health/wellness
- Longitudinal data
- Experimental design-if students have questions based on their object, can they design an experiment around that question
- Cross-disciplinary skills
- Independent study- observation can inspire independent study and build on curiosity

Unit/Lesson Design

- 1. Determine your purpose--clear for you, clear for your students
- 2. Build in student autonomy--this will be different depending on your context and students, shape this based on your purpose and the needs of your students
- 3. Set a journaling schedule and time limit
- 4. Focus student attention
 - a. Subject matter
 - b. Prompt ("I notice, I wonder..")
- 5. Display, Debrief, Discuss
 - a. Display student work! Students are often really proud of what they do and giving them time to share what surprised them, what was challenging, and what they overcame will build their skills and motivation. You can use their information to go on to other activities or further application.

Issues of Access: What is "Nature"?

- Backyards and gardens
- Boulevards
- Local parts
- Pets!
- Houseplants
- Window-watching
- Live webcams
- Pictures

Examples of Units:

Middle Grades: Independent Study

- 1. Purpose: Research paper on a MN organism
- 2. Build in autonomy: Students choose an organism that lives in their backyard/out the window/from a webcam
- 3. Set schedule and time limit: Must observe the organism every day for 15 mins
- 4. Daily prompts: focus on body paragraph topics (habitat, adaptations, where it is in the food web etc.)
- 5. Students post pages daily, and they can include them in their final papers

Secondary Grades: Cross-disciplinary skills

Purpose: Improve observation skills by creating a field guide

Students choose a category of organism they can observe (e.g. flowers)

Observe a different organism each day for 30-40 minutes (longer because they are older, and their purpose is more detailed)

Same prompt daily: create a field guide entry for identification

Students publish their field guide. Other students use it in an exploration into the field.

4th grade+: Longitudinal Data

Purpose: Collect wildlife data in order to draw conclusions as a class Students choose a time of day that they are in charge of observing a webcam Record observations of a live webcam for 20 mins a day List of key behaviors to watch for with times: eating, preening etc. Students share data and then use the information to draw conclusions about the animal's behavior, adaptations etc.

Share your expertise: From webinar participants

What other applications for nature journaling can you think of?

- Figurative language development, adjectives/nouns
- Using journaling to reinforce text features
- Climate change and species changes (compare to <u>past records</u>)
- Choosing an object to measure the shadow at different times of day or week to week
- Using journals to pair with citizen science projects
- Using different purposes and prompts to explore different types of scientific study/careers
- I also use it to identify birds and trees
- I have been asking students during this distance learning time to do sound maps weekly, beginning with 5 minutes, increasing by 5 minutes every week. Then sharing pictures of their entries.
- We have been contributing to a shared Google Slides presentation. So far we have been taking photographs that show phenology, but we could also snap a picture of a journal page and share that way during distance learning.
- We just finished reading "The End of the Wild" by Nicole Helget which is intended for 4-8 grade readers. It would be a great tie in for nature journaling, especially making a field guide.

FAQ:

Q: I'm not an artist! How do I get kids to engage with drawing in a meaningful way?

A: It is helpful to remember that nature journaling is not about producing a perfect product, and it's not even about making good art. Most students will doodle or engage with the drawing, but it is important to give students a "why" for the drawing. Develop a growth mindset among students that this is a skill to practice, it's not an inborn talent and you can improve with hard work. Many students who might not want to draw will be afraid to mess it up. Focusing on the application and skills-building can help a student work through those worries.

Q: Students always tell me they are 'done' after 3 minutes! How can I get them to engage for longer?

A: One educator uses a particular framing to respond to this situation: "You might get to a point where you *feel* like you are done. If you get that feeling, I want you to continue nature journaling for 3 (or whatever you choose) more minutes. Then we are going to talk about what you observed in that extra time you kept going." You can use this kind of framing to discuss challenges, frustrations, and surprises from what students learned.

Q: Can I use a nature journal as a part of my evaluation of Environmental Literacy?

A: Nature Journaling can be used in many different subjects, and the data that you collect could be looked at and used to measure environmental literacy in many different ways. Students' awareness of and connection to nature could be demonstrated over time depending on the types of applications and purposes you implement. Use your school's ELP as a reference point, if you are considering using nature journaling toward your EE goals.

Q: When journaling with students, does the teacher typically provide the "purpose" for any given entry?

A: The teacher should consider determining the purpose at the beginning, to facilitate the early practice and learning of *how* to use a nature journal.

Q: What materials do you recommend students use/bring when nature journaling? Do you need to use colored pencils or other art tools?

A: When you work with students, start with pencil or ink. You can build up to using color if you want, but that can be intimidating or a barrier for students at the beginning.

Q: Would you recommend scholars bring a camera/phone to take pictures so they can add color after? To create more interest perhaps?

A: Yes, a picture can help a student finish a visual representation later--and those students who might be very intimidated by the visual component could always include the picture later.

Q: How can you use this and be successful with young learners?

A: You can focus on skills that they can do--students could speak observations out loud, they could do a kind of show and tell over a video call. You can encourage things like tracing or practicing drawing, even if those skills aren't going to be as strong.

Q: How can you use nature journaling to focus more specifically on social/emotional skills--especially during this time?

A: You can focus your activities on the "It reminds me of..." piece, and allow students to reflect or share more about what their observations bring up. Ask them prompts like "How did you feel after you did this activity?" Part of your debrief might include questions like, "When you felt challenged, how did you handle that challenge?"

You can allow students to put things in their journal that you won't grade or look at, they should either indicate pages they want you to skip, or not upload/include those pages. Many students will take that opportunity.

Q: How might phenology or long-term observations be framed and presented... and what about stars and changing constellations and moon phases?

A: Phenology is the study of changes in nature, particularly changes in season. That is a really useful way to engage students in a purpose for nature journaling. Things like tracking what kinds of birds they see each day, listing as much as drawing could still show those changes. Scientists most often use phenology yearly, but you could use it week to week with students. Star maps and tracking stars and constellations is really great, it could be used to highlight social justice issues like light pollution and other findings.

Additional Resources:

How to Teach Nature Journaling by Emilie Lygren and John Muir Laws (Free PDF online) <u>BEETLES Project "Field Journaling with Students"</u> (Free, Online) <u>BEETLES Nature Journaling template pages</u>

Nature's Notebook

<u>Jeffers Foundation Jeffers Journals</u> – Teachers who complete a Jeffers workshop are eligible to receive a classroom set of journals (about 30). Additional journals will be available for purchase from our printer, Focus33, for \$3.20 each (shipping included).

<u>Minnesota Weatherguide Environment[™] Calendars</u> from the Freshwater Society