

# Nature Journaling

**Age:** Grades K-12    **Setting:** Outdoor or Indoor    **Season:** All Seasons

**Duration:** 15 min. minimum    **Group Size:** classroom/small groups



**Overview:** After a mini-lesson on nature journaling, students participate in a field activity, investigation, or lab, recording their observations, data, and discoveries in their field journals. Student share their results and reflect upon their discoveries, then determine how they will use their material in order to share their experiences with others. The nature journals may also serve as an assessment tool to evaluate the students learning.

**Subjects:** Science, Language Arts, and Visual Arts

**Skills:** Inquiry, Analyzing, Observing, Describing, Evaluating, Interpreting Data, Reflection, Scientific Method / Process, Note Taking, Writing, Sketching, Data Collection.

**Materials:** Pencils, Colored Pencils, Crayons, Composition notebook or paper.

**Location:** Anywhere outside

**Outcomes:** Students will:

1. Learn to make detailed observations of their natural surroundings.
2. Gain experience in making detailed observations of nature through drawing and writing in a nature journal.
3. Learn basic nature drawing techniques.
4. Engage their surroundings through formulating and recording questions.
5. Learn importance of making observations.

**Vocabulary:** Journal, sketch, observation, reflect

**ND Academic Standards Supported:** This lesson helps support:

**Science** Disciplinary Core Ideas involving natural resources, weather and climate, biodiversity and humans, ecosystems dynamics, functioning, and resilience, organization of matter and energy flow in organisms, and interdependent relationship in ecosystems.

**Language Arts & Literacy** including writing standards.

**Visual Arts** standards involving Connections and Visual art media, techniques, and processes.

**\*\*\*see section "Academic Standards" for more information**

# Background Information and Knowledge for Teachers

Nature journaling has been used for decades by scientists and naturalists to record data, observations, and thoughts about the environment that they are exploring. Journaling is a gateway to the reflection of the world around us, and through this writing process it forms the connection between people and place. Focusing on the great outdoors provides for a wide range of expression and active learning; whether drawing or writing observations, students feel free to document direct discoveries and express their own thoughts. Allowing the student to lead their own learning in this way, will generate raw data that can be used and integrate into other classrooms subjects and assignments.

Journals are an excellent tool for linking the different subjects and disciplines in a cross-curricular unit or program. They foster clear communication skills, data recording, creative expression, and at the end of the program, the parent, child, and teacher will have a complete record of what the child gained from the program. Journals can be used in many ways: to record scientific data, to take notes, to keep dried specimens (pressed leaves, flowers), to make drawings or sketches, to record thoughts or feelings, or to use as a scrapbook (photographs, keepsakes). They yield a detailed record of time spent, and therefore provide an excellent assessment tool for educators. There are no rules or limits to how journals may be created or applied.

## Outdoor Time / Field Investigation

1. Lead students in a discussion about what journaling is:
  - What is a journal? Do any of the students keep a journal?
  - What are some reasons people might want to keep a journal?
  - What do they think a *nature* journal is? What would you write or draw in a nature journal?
  - Why would someone keep a journal about nature?
2. Read an excerpt from a sample journal and show some examples – drawings, writing, etc. A good North Dakota education sample journal could include the journals of Lewis and Clark from their Corps of Discovery Expedition.
3. Tell students that they are going to begin their own nature journals. Share some ideas about keeping a journal:
  - You can be yourself in your journal.
  - It doesn't matter if you don't think you are a good artist – you don't have to win an art contest for your journal.
  - We'll use all of our senses (except taste)
  - You can share some parts of your journal with others.
  - Try to be specific in your journal when you make observations and descriptions.
4. Pass out paper (or notebooks) and crayons. Let students design a cover for their journal.

5. Lead students through the basic information that they should record whenever they make a new journal entry:
  - Date
  - Place
  - Time of day
  - Weather conditions
  - Any other important information – who they are with, special location or activity, their mood, etc.
  
7. Lead students through their first journal activity
  - Have students write the words “I see” at the top of a page. Have them take 1 minute and list everything they see.
  - Have students write the words “I hear” at the top of a page. Have them take 1 minute and list everything they hear.
  - Challenge students to do some creative thinking. Have them imagine that they are an animal of their choice. How would they complete the following sentences:
    - “Through a \_\_\_\_\_’s eyes, I would see . . . ”
    - “With a \_\_\_\_\_’s ears, I would hear . . . ”

## **Weather Alternatives**

Most of the time, nature journaling is done outdoors. In the case of inclement weather; it is still okay to be inside. If you can find a window with a view, have the students take turns writing down different weather patterns and any other observations they find noteworthy. Alternatively, in the winter, ask the students to each bring something to sketch or let them outside for a short period of time to collect a treasure to write about. (Please keep in mind that items may not be removed from National Wildlife Refuges and other public lands.) Since Nature Journaling observation periods are fairly short, the project can still be conducted when temperatures are less than favorable.

## **Extensions / Adaptations / Assessment Ideas**

The following extensions / adaptations / assessment ideas are from the U.S. Fish & Wildlife Service’s Prairie Wetland Learning Center, Fergus Falls, MN.

1. Read an excerpt from *The Sense of Wonder* by Rachel Carson, and then take a walk to find examples of wonders in nature. Record them in field journals.
2. Visit the same place outside with your students on a regular basis, such as daily, weekly, monthly, seasonally, or annually. Record changes over time in journals.
3. Explore your school grounds or local park together, and then sit in silence as students use their nature journals to complete a free write.
4. Send journals home with students to make observations and discoveries in their yards. They can replicate a field activity done at school and then compare and contrast results from each site.

5. Periodically pair students up and have a journal exchange. Students read each other's journals to make new discoveries about how to journal and individualization. Provide prompts to guide discussion. Comments may be shared verbally or in writing.
6. If cameras are available, use them in combination with writing and sketching. For example, using field notes recorded when journaling, write a poem to accompany a photo. Compare and contrast something that was both sketched and photographed.
7. Draw connections to curriculum with nature journals. Link them to academic activities when possible such as for science concepts and vocabulary, spelling, writing (similes and metaphors, onomatopoeia, punctuation, adjectives, verbs, nouns), poetry, art, math (fractions, percent, mean, mode, median, measurements, benchmarking), local history, and data organization.
8. Explore the lives and writings of famous naturalists, role models for nature journaling. Some possibilities include Lewis and Clark, John Muir, Aldo Leopold, and Rachel Carson. Read biographies about them, dress like them, watch or listen to recordings of them, and most importantly, apply their ideas to student journaling.
9. Use journal entries to produce polished work in creative writing, science, art, or music, this is key to preventing nature journaling from becoming a form of "busy work. Teaching how to use journals outside is a first step. Complete the process by allowing students to productively use it to share their discoveries with others, just as adult naturalists and scientists do. They might write reports, write and present speeches, create a class publication (field guide, newsletter, literary collection, phenology calendar, audio/video recordings), lead guided tours, organize a gallery display and reception, or hold a conference to share discoveries made through journaling. Some of these options would also be adaptable for web site publishing and class fundraisers complete with a book signing, public reading, or celebration.
10. As a class, write a free-verse poem using observations from field journals. Each student writes one thought about their experience. Go systematically around the room and ask each student to read their thought aloud. Write each thought on a poster sized piece of paper on the wall. Each student reads the previous student's sentence and adds their own to it, building the poem. Each sentence gets written on the poster, but cover the preceding lines so only the previous sentence shows. Once each student's sentence has been read and recorded, then uncover the completed poem and read it aloud. Add photos or art if desired and display for others to enjoy.
11. Read student journals periodically and provide written encouragement, questions or further information. Allow students to evaluate their own journal. Provide prompts such as which entries are their favorites and why? Do they see patterns among the entries? What would someone reading their journal 100 years from now discover about them and their place?
12. Give an open-journal quiz which bolsters incentive to make complete entries.
13. Pair students with buddies to introduce journaling to younger students.

# References, Resources & Credits:

## For Adults

- [A Sand County Almanac](#) by Aldo Leopold
- [Backyard Almanac, a 365-Day Guide to the Plants and Critters that Live in Your Backyard](#) by Larry Weber
- [By a Thousand Fires, Nature Notes and Extracts from the Life and Unpublished Journals of Ernest Thompson Seton](#) by Julia M. Seton
- [Into the Field, a Guide to Locally Focused Teaching](#) by Clare Walker Leslie, John Tallmadge, and Tom Wessels
- [Keeping a Nature Journal, Discover a Whole New Way of Seeing the World Around You](#) by Clare Walker Leslie and Charles E. Roth
- [Moon Journals: Writing, Art, and Inquiry Through Focused Nature Study](#) by Joni Chancer and Gina Rester-Zodrow
- [Nature Journaling, a Creative Path to Environmental Literacy, a Guide for Sinking Roots in Place and Branching Out Toward Environmental Literacy in Grades 4-8](#) by Kate Hofman
- [One Square Mile, an Artist's Journal of America's Heartland](#) by Cathy Johnson
- [Project Bluestem](#), Neal Smith National Wildlife Refuge, U.S. Fish and Wildlife Service
- [Rhythms of the Refuge](#), Horicon National Wildlife Refuge
- [The Naturalist's Field Journal, a Manual of Instruction Based on a System Established by Joseph Grinnell](#) by Steven G. Herman
- [The Sense of Wonder](#) by Rachel Carson
- [Using Science Notebooks in Elementary Classrooms](#) by Michael P. Klentschy
- "A Nature Journaling Guide: Fostering a Naturalistic Outlook" session presented by Kate Hofmann and Joe Passineau, University of Wisconsin-Stevens Point, at the North American Association for Environmental Education Conference, Biloxi, Mississippi
- "Folding Memories" by Janine Newhouse, [Strides](#) newsletter by Leopold Education Project, Winter 2006
- "Writing and Drawing in the Naturalist's Journal," by Joseph M. Dirnberger, Steven McCullagh, and Tom Howick. [The Science Teacher](#), January 2005
- Teaching in the Outdoor Classroom educator workshop, Prairie Wetlands Learning Center, Dave Ellis, instructor
- How to Draw Birds for a Naturalist Journal, <http://www.wildernesscollege.com/how-to-draw-birds.html>
- <http://www.friedenswald.org/documents/Nature%20Journaling%20Master.pdf>
- Introduction to Nature Journals, [http://www.smithsonianeducation.org/educators/lesson\\_plans/journals/index.html](http://www.smithsonianeducation.org/educators/lesson_plans/journals/index.html)
- Keeping a Nature Journal, [http://www.sierraclub.org/education/nature\\_journal.asp](http://www.sierraclub.org/education/nature_journal.asp)
- Make a Twig Nature Journal, <http://bringinguplearners.com/2008/01/28/homeschool-hacking-tips-make-your-own-nature-journal/>
- <http://www.greatstems.com/2013/05/wildlife-projects-for-kids-making-a-nature-journal.html>
- Nature Journaling Blog, [http://www.eeweek.org/nature\\_journal.htm](http://www.eeweek.org/nature_journal.htm)
- Nature Journaling Blog, <http://handbookofnaturestudy.blogspot.com/>
- <http://www.lbl.org/EEActivities07-8/Let'sBeginANatureJournalPre.pdf>
- Nature Journaling, [http://pbskids.org/backyardjungle/info/nature\\_journaling.php](http://pbskids.org/backyardjungle/info/nature_journaling.php)
- Nature Journaling, <http://www.care2.com/greenliving/nature-journaling.html>

- Nature Journaling, <http://gnmparents.com/the-littlest-naturalists-part-iii-nature-journaling/>
- Nature Journaling lesson plan, <http://www.fws.gov/midwest/PWLC/documents/NatureJournal.pdf>
- Science Notebooks, <http://seagrant.uaf.edu/marine-ed/curriculum/science-notebooks.html>
- [http://bronxriver.org/puma/images/usersubmitted/file/005\\_NatureJournaling.pdf](http://bronxriver.org/puma/images/usersubmitted/file/005_NatureJournaling.pdf)
- The Nature Journal as a Tool for Learning, <http://www.newhorizons.org/strategies/environmental/matsumoto.htm>
- Writing and Drawing in the Naturalist's Journal, [http://www.nsta.org/store/product\\_detail.aspx?id=10.2505/4/tst05\\_072\\_01\\_38](http://www.nsta.org/store/product_detail.aspx?id=10.2505/4/tst05_072_01_38)
- The Illustrated Nature Journal, a Handbook, <http://www.pinicola.ca/jourbook.htm>
- <http://www.fws.gov/uploadedfiles/naturejournal.pdf>

### For Children

- By the Shores of Silver Lake by Laura Ingalls Wilder, excerpts from "The West Begins," "Shanty on the Claim," and "Where Violets Grow."
- Cloud Dance by Thomas Locker
- Draw and Color Insects by Walter Foster and Diana Fisher
- Everybody Needs a Rock by Byrd Baylor
- Guess Who My Favorite Person Is by Byrd Baylor
- I'm in Charge of Celebrations by Byrd Baylor
- Lewis and Clark, the Adventure in the West by Frank Burd
- My Nature Journal by Adrienne Olmstead
- Kids Nature Log by DeAnna Brandt/Adventure Publications
- Salamander Rain: a Lake and Pond Journal by Kristin Pratt-Serafini
- The Lewis and Clark Expedition, Join the Corps of Discovery to Explore Uncharted Territory by Carol A. Johmann
- The Other Way to Listen by Byrd Baylor
- Where Does the Wind Blow? by Cindy Rink
- Nature journal template, [http://www.sierraclub.org/education/nature\\_journal\\_template.pdfv](http://www.sierraclub.org/education/nature_journal_template.pdfv)

## Supplemental Material

All supplemental material is included on the "Blue Goose" jump drive.

# Academic Standards

**Science** – Next Generation Science Standards, For States, By States: from Common Core K-12 Combined 6.10.13

<b>K</b>	
<b>ESS3.A</b>	Natural Resources
<b>ESS2.S</b>	Weather and Climate

<b>2</b>	
<b>LS4.D</b>	Biodiversity and Humans

<b>3</b>	
<b>LS2.C</b>	Ecosystem Dynamics, Functioning, and Resilience
<b>ESS2.D</b>	Weather and Climate

<b>4</b>	
<b>ESS2.E</b>	Bio geology

<b>5</b>	
<b>LS1.C</b>	Organization for Matter and Energy Flow in Organisms

<b>MS</b>	
<b>LS2.A</b>	Interdependent Relationships in Ecosystems
<b>ESS3.A</b>	Natural Resources

<b>HS</b>	
<b>LS2.A</b>	Interdependent Relationships in Ecosystems

**Language Arts and Literacy** - NORTH DAKOTA ENGLISH LANGUAGE ARTS & LITERACY CONTENT STANDARDS, Grades K–12, June 2011, Based on the Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

<b>K, 1, 2</b>	
<u>Domain</u>	Writing Standards
Code	
W.2	
W.3	
W.7	
<b>3, 4, 5</b>	
<u>Domain</u>	Writing Standards
Code	
W.3	
W.7	
W.8	
<b>6, 7, 8</b>	
<u>Domain</u>	Writing Standards
Code	
W.7	

<b>9-12</b>	
<u>Domain</u>	Writing Standards
<u>Code</u>	
<u>W.7</u>	

**Visual Arts** - North Dakota Standards and Benchmarks Content Standards Visual Arts 2000

<b>K-4</b>	
<u>Standard 1</u>	<b>VISUAL ART MEDIA*, TECHNIQUES*, AND PROCESSES</b> Students understand and apply visual art media*, techniques*, and processes*.
<u>Benchmark</u>	
<b>4.1.2</b>	Know the different techniques* used to create* visual art.
specific knowledge	drawing techniques (e.g., gesture*, contour, cross hatch, value* shading, line and line variation, perspective, composition)
<u>Standard 6</u>	<b>CONNECTIONS</b> Students make connections between the visual arts* and other disciplines.
<u>Benchmark</u>	
<b>4.6.2</b>	Know connections between the visual arts* and other disciplines in the curriculum.
specific knowledge	mathematics, science, social sciences, physical education, business, technology, language arts

<b>5 - 8</b>	
<u>Standard 1</u>	<b>VISUAL ART MEDIA*, TECHNIQUES*, AND PROCESSES</b> Students understand and apply visual art media*, techniques*, and processes*.
<u>Benchmark</u>	
<b>8.1.2</b>	Understand how different techniques* are used to create* visual art.
specific knowledge	drawing techniques (e.g., gesture*, contour, cross hatch, value* shading, line variation, perspective, composition)
<u>Standard 6</u>	<b>CONNECTIONS</b> Students make connections between the visual arts* and other disciplines.
<u>Benchmark</u>	
<b>8.6.2</b>	Understand the relationship between the visual arts* and other disciplines in the curriculum.
specific knowledge	mathematics, science, social sciences, technology, physical education, business, language arts