



# NATURE JOURNALING

<b>Grade Span</b>	8th to 9th grade
<b>Time Span</b>	Year long project, about 1 hour per week.
<b>Standards</b>	Earth's place in the universe. <a href="https://www.nextgenscience.org/pe/ms-ess1-1-earths-place-universe">https://www.nextgenscience.org/pe/ms-ess1-1-earths-place-universe</a>
<b>Focus Question</b>	<ul style="list-style-type: none"> <li>• What do you notice about nature and how it changes with the seasons?</li> <li>• What do you notice about shadows and how they change with the seasons?</li> </ul>
<b>Overview</b>	Students will explore nature through journaling in a notebook. Students will learn to observe nature with four of their five senses. Students will notice how shadows change over time and with the seasons and develop a model of why these shadows change over time.
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Learn to observe nature</li> <li>• Learn to nature journal</li> <li>• Discover changes in nature over time</li> </ul>
<b>Materials Needed</b>	<ul style="list-style-type: none"> <li>• Blank notebook or notepad</li> <li>• Colored pencils</li> <li>• Thin tipped markers</li> <li>• Ruler or measuring tape</li> <li>• Compass</li> <li>• Round dowel rod (or other object that casts a shadow)</li> </ul>
<b>Vocabulary</b>	<p>Phenology - the study of cyclic and seasonal natural phenomena, especially in relation to climate and plant and animal life</p> <p>Metadata- a set of data that describes or gives information about other data (in this case, date, time, location, weather)</p>
<b>Teacher Prep</b>	<ul style="list-style-type: none"> <li>• Ask students to bring the following in a carry bag <ul style="list-style-type: none"> <li>○ Journal with no lined paper</li> <li>○ Colored pencils</li> <li>○ Pencil</li> <li>○ Fine tipped black pen</li> <li>○ Hat</li> <li>○ Bug spray</li> </ul> </li> <li>• Locate a place outdoors to take students to nature journal</li> </ul>



	<ul style="list-style-type: none"> <li>• Identify any hazards in that area</li> <li>• Familiarize yourself with the essentials of a nature journal <ul style="list-style-type: none"> <li>○ Metadata - date, time, location, weather</li> <li>○ What do you notice</li> <li>○ What do you wonder</li> <li>○ What does this remind you of</li> </ul> </li> <li>• Identify where students will sit to journal outdoors</li> <li>• Identify and mark boundaries on property for students to journal inside of</li> </ul>
<b>Background</b>	<p>Nature journaling is a way to get students to notice nature. Writing and drawing improve their ability to observe, process and remember their thoughts and experiences. When students journal over time, they will improve in skills and observations.</p> <p><a href="https://johnmuirlaws.com/product/how-to-teach-nature-journaling/">https://johnmuirlaws.com/product/how-to-teach-nature-journaling/</a></p> <p><a href="https://johnmuirlaws.com/sun-shadows-exploring-the-solstice-and-equinox/">https://johnmuirlaws.com/sun-shadows-exploring-the-solstice-and-equinox/</a></p> <p>Shadow and season video: <a href="https://www.youtube.com/watch?v=n7xP5hb69rw">https://www.youtube.com/watch?v=n7xP5hb69rw</a></p>
<b>Procedure</b>	<p><b>Engage:</b></p> <p>Week 1:</p> <p>Take students on a walk/hike near your school. (Do not bring journal on this walk) Ask them to observe nature as they walk.</p> <p>In the classroom</p> <p>Ask students to describe what they saw, felt, smelled and heard.</p> <p>Ask them what they remember</p> <p>Introduce nature journaling: <a href="https://youtu.be/wK2BTqUmBc4">https://youtu.be/wK2BTqUmBc4</a> (1:18 minute video/<b>Watch first 22 minutes</b> on anchoring your observations through journaling)</p> <p><b>Explore:</b></p> <p><b>Have students take out their journals and write the following on the first page. (this will be a reference page while they are outside)</b></p> <p>Things to include in each journal entry</p> <p>Date</p>



Time  
Location  
Weather  
Things to journal outside  
Leaf rubbing  
Animals  
Landscape  
Plant - flower, leaf, branch, bark...  
Writing prompts  
What do you notice?  
What do you wonder?  
What does this remind you of?  
What do you feel on your skin?  
What do you hear?  
What do you smell?

Week 2 through however long you want to do this:  
(The idea is for them to observe the same environment in different seasons and weather)

Take students on the same walk/hike near your school.

Have students journal once a week in the same location, looking in the same direction. This can be at the ground or towards a tree, as long as it is the same point of view each time.

Ask students to share what they observed and journaled with a partner

Explain to students that this is not about the art, it is about making observations in nature. Nature journaling helps students focus on nature and make deep connections to what they observe.

### **Explanation:**

Show students journal page examples so that they can see examples. Talk about using vignettes to break up a page. They don't need to fill up an entire page with one drawing. It is less intimidating to work with sections of a page.

Encourage students to focus by creating topics to journal when you go out as a class. Perhaps one day is "draw things that are on the ground". Another day could be "journal only things that are found on trees". This limits their focus and makes it less overwhelming.



Another idea is to give them a piece of string and have them make a circle on the ground and only journal things inside that circle.

Converting a journal page into a scientific record can be done when you include where-and-when data. This makes the journal entry scientifically more useful.

**Extension:**

In a separate part of their journal, have students collect data on the following:

Students place a stick/dowel-rod/ruler into the ground. They measure the height of the object in inches. They measure the length of the shadow in inches. They sketch the stick and shadow in their journal along with all the data.

This is repeated at the same time of day, once a month, each month of the school year.

Students construct an explanation for why the length and/or angle of shadow is different.

Questions to answer in their journal:

What do you notice about the shadow length as it relates to the seasons?

What do you notice about the angle of the shadow as it relates to the seasons?

Can you construct an explanation about why these things change?

In your journal, can you draw a model of why the shadow angle and length change? (Include the sun and earth in your model)

**Evaluate:**

See Appendix A



## Appendix A

One option for creating this rubric is to have the class create it together. When students develop rubrics in a collaborative environment, they will have more ownership in the evaluation tool.

Below is an example, if you don't want to create a rubric as a class.

	0	1	2
<b>Metadata</b>	Not present	Some metadata	All metadata
<b>Illustrations</b>	No illustrations	Some illustrations	Detailed illustrations
<b>Words</b>	No words	Some words included	Detailed descriptions
<b>Numbers</b>	No numbers	Some numbers included	Good use of numbers

This lesson modified from “How to Teach Nature Journaling” by John Muir Laws and Emilie Lygren (<https://johnmuirlaws.com/product/how-to-teach-nature-journaling/>)