



# My Wild L.A.

## Kindergarten - 12<sup>th</sup> Grade

### Duration

Visit: 45 minutes

Post-Visit: 60-90 minutes

### Location

Nature Lab

### Supplies

- Pencils
- Journal or paper  
*(optional template included)*
- Colored Pencils\*
- Timer\*
- Clipboards\*

\*Optional

### Standards

[CCSS ELA.K-2.W.3.8](#)

[CCSS ELA.3-5.W.3.5.8](#)

[CCSS ELA.6-12.W.3.7.8](#)

[NGSS Science Practices](#)

Relevant NGSS regarding extension activities:

[Progressions](#)

[Nature of Science](#)

[Crosscutting Concepts](#)

## Concepts

- Journals are tools scientists use to record and communicate observations and ideas.
- Recording observations and experiences inspire inquiry.

## Objectives

- Students will record observations and experiences about an organism they have interacted with.
- Students will use observations and interactions to write a narrative story.
- Students will use observations and stories to inspire a research project.

## Outline

1. At the Museum, introduce students to the practice of journaling as a scientific tool. Then, have students select a specimen and free-write about an experience they have had with it.
2. In the classroom and as independent work, have students use their observations and free write to compose a short narrative story. Then, use the story and observations to generate questions, and choose one to research and present to the class.

## Museum Visit

### Science Journaling

Gather students outside the Nature Lab and explain that today we are going to be science journaling. Journals are a tool important to many kinds of scientists (biologists, chemists, geologists, botanists and more!) who use them to record observations, data, questions, stories and ideas about what they notice and experience. Entries are often referenced over and over to review data, ask questions and re-think ideas or conclusions.

Today, we are going to use journals to record our own observations and stories about an organism that we have had an interaction with before. This might be something like a skunk that sprayed our dogs or cats, or an opossum who played dead when you took out the trash. Maybe it's a tree you like to climb or a bug that you always see in your house. Any plant or animal that you can tell a personal story about. You will have 5-10 minutes to explore the Nature Lab and find this organism, then we are going to go through some journaling exercises to use back at school.

When students have located a plant or animal in the Nature Lab, have them open up a blank page in their journal, and write the date, time, location, and name of the specimen being observed.

### Draw what you see

First, explain that we are going to record observations by drawing them. Scientific drawings do not need to be beautiful or perfect representations, but are sketches that communicate what is noticed about something we are observing. Encourage students to draw large so they can fit in more detail and to focus on drawing what they actually see. Set a timer, and give them ten minutes to work and a one minute warning that time is almost up.

*Teachers Note: Consider asking students to include descriptive words or notes to help call out key features and characteristics. Participation in this activity with your students is encouraged!*

### Write your experience

Have students open to a fresh page. Ask them to picture the experience they have had with their plant or animal. When you say "go", they are to open their eyes and free-write about that moment for three minutes. Tell them not to worry about writing the perfect story, just "brain dump" anything they remember about their interaction onto the paper!

Time students, giving them a thirty second warning before asking them to put pencils down. Have students shake out their hands and stretch their arms, then have them to read over what they wrote and underline or circle words or phrases that seem important to them.

On a new sheet, they are going to re-write their story, this time for five minutes. Again, time them and give a thirty second warning before asking them to put pencils down. Keep all the entries to take back to the classroom for follow-up activities.

*Teachers Note: For early elementary, condense these activities and have students choose a specimen and draw a picture of their story. Again, participation in this activity with your students is encouraged!*

## Post-Visit

### My Wild L.A. Story

Have students use their entries to inform a short narrative story with sequenced events and descriptive vocabulary to convey time, character and transitions. Length and which specific elements should be emphasized should be tailored based on what is appropriate to your grade (see [CCSS ELA](#) for more).

Additionally, use student work to generate a list of questions about the organism they observed. Students should choose one of these questions to research and investigate using the media and resources appropriate to their grade (see [NGSS](#) for more). Have students present their findings to the class, including the original story that inspired the question.

Alternately, have students construct an initial explanation for why the organism might have behaved/grown/reacted the way it did, then reflect and re-evaluate their explanation using evidence from further observation and research.

*Teachers Note: All student work in notebooks and journals should be considered a first draft, and not submitted for a final grade. For early elementary, have students dictate their story based on their drawing, or turn their story into a multi-page picture/story book.*

## Resources

- **Opening the World through Journaling: Integrating art, science, and language arts**  
*Written for CNPS by John Muir Laws, Emilie Lygren, Emily Breunig, and Celeste Lopez*  
<http://www.cnps.org/cnps/education/curriculum/index.php>
- **FOSS Science Notebook Folio**  
*from The Regents of the University of California*  
[http://lhsfoss.org/fossweb/news/pdfs/Science\\_Notebook\\_FOLIO.pdf](http://lhsfoss.org/fossweb/news/pdfs/Science_Notebook_FOLIO.pdf)

## Journal Page (Next Page)

Using existing notebooks or journals from the classroom is encouraged, however if you do not already have these, a few blank pieces of paper will work. You may also choose to print and copy the following page and fold it in half to create a quick and easy journal page. Pieces of blank paper can be folded in half and inserted in the middle (secured with staples or string) to create additional pages.

# SCIENCE JOURNAL

THESE OBSERVATIONS BELONG TO:

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## Additional Extensions in Science

Journals encourage student-directed exploration of scientific concepts and practices, and are powerful learning experiences because they have ownership over the material. Stories can be used repeatedly throughout the year, as student reflect and build on the experience with new knowledge. Below are additional activities that support many Next Generation Science Standards:

### Grades K–2

- Share work and discuss what kind of information is recorded and communicated. What other kinds of information might we be able to record and communicate using journals?
- Identify which kinds of questions can be answered with science and which cannot.
- Revisit drawings and stories to add ideas, comments or insights to original entries after covering content pieces. Student experiences can introduce or inform discussions about observing patterns, structure and function, the needs of living things, social interactions and behavior, growth and development, human interaction and impact, and biodiversity and interdependence.

### Grades 3-5

- Generate a list of the kind of data that is recorded in their story and observations and discuss which is empirical and which is not. What other kinds of empirical data might be recorded using a journal?
- Group students with similar questions and collaboratively plan and conduct an investigation that includes recording further data in the journal and using it as evidence to construct an explanation.
- Revisit drawings and stories to add ideas, comments or insights to original entries after covering content pieces. Student experiences can introduce or inform discussions about growth and development/reproduction, structure and function, patterns, social interactions and group behavior, biodiversity and humans, adaptation, ecosystem dynamics, biogeology, energy flow and transfer and cycling in organisms and ecosystems, interdependent relationships in ecosystems and human impacts.

### Middle School

- Generate a list of phenomena observed in the stories and have students plan and conduct an investigation. Record data in the journal and use quantitative and qualitative evidence from a diversity of sources to clarify claims and findings or support/reject explanations.
- Generate a list of conflicts within animal/human interactions in the stories. After an investigation, have students research and create possible solutions.
- During investigations integrate graphs and charts to identify patterns in collected data, and create models describing the phenomena.
- Revisit drawings and stories to add ideas, comments or insights to original entries after covering content pieces. Student experience can introduce or inform discussions about structures and function, growth and development of organisms, interdependent relationships ecosystems, cycle, flow and energy transfer in ecosystems, biodiversity and humans, natural selection and adaptation, natural resources and human impacts.

### High School

- List phenomena observed and collaboratively conduct an investigation. Record data in the journal and use valid and reliable evidence from a diversity of sources to clarify claims (including computations models), findings and support/reject constructed explanations.
- List conflicts in animal/human interactions in the stories. In teams, design a possible solution using various sources of evidence to support ideas. Peer critique and discuss how this process translates to political and ethical considerations in a real world context.
- Revisit drawings and stories to add ideas, comments or insights to original entries after covering content pieces. Student experience can introduce or inform discussions about structures and function, growth and development of organisms, interdependent relationships in ecosystems, cycle, flow and energy transfer in ecosystems, ecosystem dynamics, functioning and resilience, biodiversity and humans, natural selection, adaptation, natural resources and human impacts and biogeology.