



Solo Observation Spot

Grade Level: 3-12

Length: 15-45

www.pwsrcac.org/lesson

Adapted from lesson plans by Liane Ryan, Lynn Denney, Margaret Spencer, The Ecology School & IslandWood, and Katie Gavenus

NGSS Standards

This lesson builds foundational understanding, familiarity, and relationships with local ecosystems. There is no specific Next Generation Science Standard for this learning, but it is integral to many of the standards at different age ranges, especially those related to observing and understanding patterns in earth systems, seasons, and ecology. Educators that wish to meet a specific performance expectation should create solo spot prompts and reflection activities that address that standard directly.

At younger grade levels, relevant NGSS performance expectations could include, but are not limited to:
K-ESS2-1; 1-ESS1-2; 3-ESS2-1; 5-ESS1-2; 3-LS3-4

At older grade levels, relevant NGSS performance expectations could include:
MS-LS2-2; MS-LS2-4

Crosscutting Concepts

Patterns Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.

Overview

We can learn a lot about our local ecosystems by observing one spot over time.

Objectives

- Students will use many senses observe a specific location
- Students will become familiar with seasonal patterns.
- Students will identify and document interactions between different parts of their local ecosystem.

Materials

- Notecards, Journals or Paper
- Pencils or Pens
- Sit Pad or Something to Sit On (optional)
- Tools for Scientific Inquiry: Magnifying Glass, Binoculars, etc. (optional)
- Tools for Artistic Expression: Watercolors, Colored Pencils, Markers (optional)

Background

Solo spots provide learners with a designated time for observing and wondering about the natural world and/or reflecting and processing on the activities of the day. With guidance from an educator or caregiver, students pick a spot where they will be able to quietly and comfortably sit for the activity. Oftentimes, students return to the same special solo spot over time. Solo spot time may involve a guiding activity, such as writing or sketching, or sometimes allow for more unstructured activities like napping, yoga, and nature sculptures. You

Crosscutting Concepts (cont'd)

Structure and Function the way an object is shaped or structures determines many of its properties and functions.

Scale, Proportion, & Quantity In considering phenomena, it is critical to recognize what is relevant at different size, time, and energy scales, and to recognize proportional relationships between different quantities as scales change.

Systems & System Models A system is an organized group of related objects or components. Models can be used for understanding and predicting the behavior of systems.

Related Resources

Websites

- <http://beetlesproject.org/cms/wp-content/uploads/2015/12/I-Notice-I-Wonder-It-Reminds-Me-Of.pdf>
- https://www.akcoastalstudies.org/data/Curriculum-2020_out_of_school/Sound-Mapping.pdf

may choose to have a time afterwards for learners to share what they noticed, wondered, or reflected on during the solo spot.

Preparation

Find a spot that is safe, comfortable, and in a location where students can observe quietly without disrupting others. Try to choose an outdoor area that they can revisit over time.

>> *Educator Tip: It is great to have a solo spot location outdoors. However, this activity can also work if you have access to a window to observe weather and nature outside or if you can create a special, comfortable “nook” of interesting objects and things to look at. It is ideal if this indoor solo spot location can include living plants and natural objects such as shells, driftwood, rocks, etc. An open window, if possible, allows for observing sounds coming from both inside and outside the building. Whether the solo spot is outside or inside, try to find or create a place where the student will have a little space and where it will be fairly quiet.*

Introducing the Lesson

Begin by taking students to an outdoor area and explain that they are going to find a place to sit in the ecosystem.

>> *Educator Tip: Use a quiet and calm, but enthusiastic tone as you describe the activity. Clearly explain how students should select their spot: one that is safe, comfortable, and where they can quietly focus. Set boundaries for how far they can go in selecting their spot and provide a specific amount of time (usually about 1-2 minutes) for them to find a good spot.*

Activity

1. Explain that over the next 10-15 minutes, their job is to sit quietly and observe what is happening in and around their solo spot. Assign a journal prompt or give students freedom to decide: write or draw in the journal, sit to relax and observe, or even play with natural items they find in their spot. Emphasize there should be no talking or other attempts to communicate with other students so that everyone can have a true solo spot.

Notes

>> *Educator Tip: For older learners, the time frame could be closer to 30-45 minutes. Follow their lead—if everyone still seems engaged after 15 minutes, you can extend the activity. For the youngest learners, it can be helpful for an adult to sit with them for the first few times.*

2. Once students have picked their spot, provide them with a notecard, journal or paper and a pencil/pen. This is good time to reiterate any topics or prompts you want them to focus on.

>> *Educator Tip: From time to time, you may need to check in with individual learners to make sure they are doing okay. Otherwise, it is great to model your own solo spot.*

3. There are many different approaches to a solo spot; some learners and educators like to focus on nature observation each time, some like to create art, some like to focus on relaxation and reflection, some like to choose a different theme each time. It is really up to you! After you finish with solo spot time, it is a great to provide an opportunity for everyone to share what they observed, noticed, wondered about, or experienced.
4. Here are some possible prompts and questions to consider during a solo spot activity:
 - On your first solo spot, make careful observations about your spot so that you will remember it and find it again. You can write or draw in your journal clues to help find your spot again.
 - Observe and pay attention to the nature surrounding you. Focus on both biotic (living or once-living parts of nature, like plants and birds and sticks) and abiotic (non-living parts of nature, like water and wind and rocks). In later solo spots, think about what has changed. Have leaf buds formed? Maybe flowers are blooming? Do you hear different sounds? Do you see evidence of different animals? How is the weather different?
 - Keep a “perpetual nature journal.” Sketch, paint, or write about the landscape or small details of your solo spot each time you visit it.
 - Comparisons! Notice opposites, such as start with something small and then something big. Something above you and then something below you. Close/far away. Green/brown. Wet/dry. Rough/smooth. Soft/hard. Curved/straight. Light/dark. Loud/quiet.
 - Five senses. Really pay attention with your senses, focusing on each sense for one or more minute. What do you smell? What do you hear? What do you see? What do you feel/touch? And (safely), what do you taste?

- “I notice..., I wonder..., It reminds me of...” These simple prompts from the BEETLES Project are a great structure for nature exploration. (<http://beetlesproject.org/cms/wp-content/uploads/2015/12/I-Notice-I-Wonder-It-Reminds-Me-Of.pdf>)
- Breathing. There are a number of simple breathing techniques, such as box breathing (take a breath for 4-5 seconds, hold for 4-5 seconds, exhale for 4-5 seconds, hold for 4-5 seconds and repeat) that are great to try while relaxing in your solo spot location. Practicing these as a group in the classroom first helps students succeed at implementing breath techniques in their solo spots.
- Create nature art using found objects in your solo spot. Be respectful of the plants, animals, and land! Usually this means using non-living objects (like rocks) or already dead objects (like sticks and fallen leaves). Create a small sculpture at your spot. It can be temporary – maybe you even put the objects back where you found them after your solo spot – or a long-term sculpture that you build on to each time you visit your solo spot.
- Use a stick, pointy rock, or your finger to draw in the dirt or sand. You can tell a story, draw shapes or patterns you notice around you, or just “doodle.”
- What colors do you notice in your solo spot? Find three colors that really catch your eye. Describe them, sketch them, and/or give them a made-up name.
- What textures do you notice in your solo spot? Find three textures that really catch your eye. Describe them, sketch them, and/or give them a made-up name.
- Building! Can you stack small rocks in your solo spot? Can you create a cool structure with twigs? Perhaps build a tiny replica of a bird nest?
- Extend your solo spot! This time, you can take ten steps in any direction from your solo spot. What do you find? How is it different or the same? Go back to your spot and take 10 steps in a different direction and repeat.
- Sound mapping is a great activity to build into solo spots. https://www.akcoastalstudies.org/data/Curriculum-2020_out_of_school/Sound_Mapping.pdf

Wrap-up

Provide an opportunity for students to share what they observed or experienced, and tie this into your learning objectives (observation skills, scientific process, ecosystem comparisons, seasonal change,

nocturnal vs. diurnal, ecological relationships, and communication are all themes that are easily connected to solo spots).

Note that solo spot journals may contain private or personal information to the student. Teachers should be clear and regularly reinforce either that journals are students' private property, or that journals are an assignment that will be reviewed by teachers and should not contain personal secrets. If journals are to remain private, invite students to verbally share any observations about their spot.

Extension Activity

Teach students the importance of using a science notebook correctly. Explain that they should record the date, time, weather, and location every time they use their science notebooks. Work on student's note-taking abilities and show them samples of science notebooks or field journals (either personal or published).

Elicit good habits by asking questions and instructing students to make comprehensive recordings while in the field, including feelings associated with what they see, hear, touch, or smell. In the beginning, students will need to be guided carefully. Their tendency will be to write sketchy, incomplete notes and to finish too quickly. This is a building process and will require a lot of modeling and practice.

Encourage students to look at their environment with a questioning eye: Ask questions such as "I wonder what would happen if...?" and "I wonder if...?" Have students keep a list of "I wonder" questions in their science notebooks.

Create a large wall chart with columns on which students will record their sensory observations. Upon returning the classroom, transfer data from their science notebooks to a class data sheet focused on various aspects of the environment relevant to your topical focus (weather, plant growth, biodiversity, seasonal cycles, etc.).

Assessment

If you have specific NGSS you would like to address for this activity, develop solo spot prompts or guide students through specific observations or data collection protocols that are relevant to the NGSS performance expectation. Review responses in their journals (with permission) or wrap-up discussions for evidence of understanding relevant to the particular NGSS performance expectation.