

October EFG Lesson

Systems and Stewardship

SEASONAL & THEME CONTEXT: This month's theme is **systems and stewardship**. This month's lesson guides us to explore the garden ecosystem and how we are the stewards of nature that work to keep our garden systems healthy and in balance.

In October ...

- 🌍 **What's happening in the environment?** We will see shorter but still warm days while the temperature slowly cools. It is likely that we haven't had our first rain storm yet. Everything will be drying out . . . Yes, those are golden hills. Fire danger is at its peak.
- 🌱 **What's happening in the garden?** Late summer crops are winding down and many plants are going to seed. It is a time of late harvest and the garden is starting to transition, with lots of stewardship to take care of as the seasons shift. It's a great time to start a compost pile and build routines around composting in the garden and do some soil testing. *Want to be more involved with your school garden? Connect with your school [EFG Champion](#). Discover more by referring to the [OUSD School Gardens Toolkit](#).*
- 🥒 **What's happening in the cafeteria?** We're celebrating October's Harvest of the Month (HOTM): Cucumbers. Find the HOTM growing in the garden and on the produce bar. *Make sure to participate in this month's HOTM taste test and learn all about the HOTM by checking out all resources on the [HOTM webpage](#). Check [the menu](#) to see all the meals being served this month.*
- 🍎 **What's happening in classrooms?** Your class is building its connections to each other and developing positive community energy! This is a time to return to routines and reflect on how everyone can steward and shape the systems that make the classroom community thrive. The garden ecosystem is a wonderful metaphor for this. *What is your class learning about in September and how can nature be your co-teacher? What opportunities exist to connect the curriculum to EFG themes and teach in the garden?*
- 🙌 **What are we honoring and celebrating?** Latino Heritage Month is celebrated from September 15-October 15 and October is Filipinx American History Month. In October, we also celebrate Indigenous People's Day, which will lead into Indigenous People's Heritage Month in November. Halloween and Dia de los Muertos are also celebrated during this time. *Discover more by referring to The Center's EFG Celebration Calendar (forthcoming) and the [OUSD's Ethnic Studies Heritage/History Month Guide](#).*

LESSON OVERVIEW: In this lesson students will share about places they love and the qualities of those places, leaning into a common theme that places we love are often well cared for and intentionally designed. Students will return to their [phenology wheels](#) to record observations of the garden and continue developing their skills of observation and "reading the garden". As a class, they will explore connections between various garden components, both abiotic and biotic, to explore the interconnected ecosystem of the garden and how an understanding of these connections guide us in our role as stewards of the garden.

TIPS FOR DELIVERING EFG LESSONS:

- Remind students ahead of time that you'll be doing the EFG lesson together tomorrow and heading outside. Preview the weather together and remind them to wear outside clothes and shoes.
- Go out to the garden and other campus areas and complete the activity yourself. Consider what hands-on stewardship students could engage in and prepare the materials for the activity. Scout the garden area and other campus green spaces to identify additional teaching opportunities and any potential hazards. Visualize leading the activity in the space. Identify what the boundaries for the activity are, where your class gathering spot will be and you will get students' attention when outside. Meet with your school's [EFG Champion](#) to collaborate on the plan.
- Always review outdoor learning/garden expectations as a class, emphasizing those that will be particularly relevant to today's theme and activity. [Here](#) are some examples of Outdoor Learning and School Garden Expectations you could adopt for your class. It's best to have school-wide agreed upon expectations for your campus nature areas, so if those don't yet exist, work with your [EFG Champion](#) and school leadership to develop them and teach them to the students. School Garden Expectations should be posted in the school garden, large and legible for all to see.

LESSON FLOW/AGENDA: ~60 min

1. 3 min - **Check In**
2. 5 min - **Introduction to Theme & The Why**
3. 5 min - ***Review Expectations & Transition to Garden***
4. 10 min - ***Sensory Exploration Guided by Handout or Journaling***
5. 5 min - **Cool Down**
6. 15 min - ***Discussion sharing observations, connections and wonderings & Activity***
7. 5 min - **Reflect**
8. 3 min - **EFG Challenge: Take Action**
9. 5 min - ***Transition back to Class***

PREPARATION:

☐ MATERIALS NEEDED:

- ☐  If your class has a practice of nature journaling, have students continue recording observations in their journals. If you and the students have kept your garden maps from the [August EFG Lesson](#), you can always bring the garden maps and add to them.
- ☐ Student's [Phenology Wheel Handout](#)
- ☐ Clipboards
- ☐ Pencils and perhaps Colored Pencils
- ☐ Printed and cut [OUSD Garden System Cards](#) - *alternatively, just write garden system components on notecards*
- ☐ Create a poster of the prompts:
 - _____ is/are important to our garden because...
 - As garden stewards, we take care of _____ by...
 - _____ is/are connected to _____ because...

LESSON GUIDE

TIME	LESSON SECTION	GUIDE
3 MIN	Check In	● Ask the class: <i>What is a place that you love? It could be a room, a friend or family member's house, a restaurant, a museum, a nature spot, really any place that you love. The more specific the better. What do you love about this place? What makes this place special?</i> ● Facilitate a think-pair-share and chart common themes in students' descriptions of the places.
5 MIN	Introduction to Theme & The Why	● Say: <i>Each of the places that we love is unique, but something they all likely have in common is that they are well cared for and intentionally designed. The same is true for our school garden. Today we will be discussing and practicing garden <u>stewardship</u>. What does <u>stewardship</u> mean?</i> ● Hear some students' ideas and develop a common definition. Say: <i>Yes, <u>stewardship</u> is the act of taking care of something. Garden stewardship means taking care of the garden in a productive way.</i> ● Ask: <i>Who takes care of our school garden?</i> ● Hear a few student responses. Students may list a specific person, like the EFG Champion or they may think that an individual person cares for the garden but not know the person's name. Hopefully they may say that they take care of the garden. Say: <i>"Yes, those people take care or <u>steward</u> the garden, but nature also takes care of our garden and we, as humans, take care of nature, which in turn takes care of us. Everything in the garden is <u>interconnected</u> and by understanding and fostering those connections, we can <u>steward</u> or school garden so that it thrives".</i> ● Say: <i>"Our goal today is to understand the connections between all the parts of our garden and identify what stewardship our garden needs".</i>
5 MIN	Review Expectations & Transition to Garden	● Say: <i>Remember that any time we're visiting the garden, it's best to ground ourselves by observing the garden, noticing changes that have taken place and appreciating nature. When we get outside you will have about 5 min to observe the garden, 2 min to write down  your observations and make connections to your own life and 3 min to share what we discovered. Just like last time we were in the garden in September, we will be guided by our Phenology Wheels.</i> ● Pass out the Phenology Wheel Handout with clipboards. ● Say: <i>"Look back at your entry from September. Tell a partner what you remember about the garden and your own life from last month."</i> ● Give students time to share with a partner. ● Say: <i>"Does anyone want to share a prediction for how the garden will have changed since September?"</i> Allow a few students to share. ● Say: <i>"Ok, we're about to go outside. It's time to review our expectations for being in the garden."</i>

		<i>Let's read them out loud.</i> Read your school garden expectations. If needed, you can use these example expectations: ○ Be Responsible - We have a purpose, when we are outdoors, we are learning and we are cooperating - we all need each other to exist, so be ready to work together ○ Be Respectful - show respect for all life and our outdoor space - treat the plants, animals, people, space and materials with respect ○ Be Safe - ask permission first, stay in designated areas and use all tools and materials appropriately ● Using an established routine that works for your class, transition to the school garden.
5 MIN	Sensory Exploration - Guided by Handout or Journaling	● Students walk the garden and observe for ~5 min. They should have garden journals and/or their Phenology Wheel Handout on a clipboard with a pencil and perhaps access to coloring pencils/crayons as well.
5 MIN	Cool Down	● Call students back to your gathering spot. ● As a cool down to encourage calm and focus, Say: <i>The days are getting shorter and the sun is lower in the sky as our hemisphere of Earth tilts away from the sun. Let's lean towards and appreciate the sunshine we have today. Everyone close your eyes and tilt your face towards the sun. Count to 10 very slowly and enjoy the warm feel of the sunshine on your face."</i> ● Give students a few minutes to silently reflect and finalize their observations in the October "slice" on their Phenology Wheel Handout. Remind them that the small "slice" is a space to share how this time of year makes them feel or something special happening in their life.
15 MIN	Activity/Discussion - sharing observations, wonderings and connections	● Lead a group discussion or think-pair-share around the following prompts. For the last two questions, take note of what students share and what features/components of the garden stick out to them. ○ <i>How does this season/time of year make you feel?</i> ○ <i>What is special about this time of year or an event or tradition for you and your family during this time of year?</i> ○ <i>How has the garden changed since the last time we visited?</i> ○ <i>What did you observe in the garden? What did you see, smell, hear, touch?</i> ○ <i>What is the garden like during this season?</i> ● Say: <i>"The garden is always full of life and connections. As gardeners it is our job and responsibility to notice, observe, understand and <u>steward</u> those connections so that our garden is a thriving system. For example, someone mentioned that the cucumber plants' leaves are brown and brittle and someone else mentioned that it's a bit chilly. What is the connection between what's happening with</i>

		<i>the cucumber plant and the cooler temperatures? As gardeners, what stewardship could we do to take care of the garden guided by our observations and the connections we're understanding?</i> Discuss as a class. For example this connection should lead us to some understanding and action, such as: <i>"The change of temperature and sunlight is affecting the life cycle of plants. Certain plants grow best at certain temperatures and with different levels of sunlight. If a plant is at the end of its life cycle, it's our job to harvest any remaining parts from the plant we can use, remove the plant, compost the plant, prepare the soil for new plants and plant new plants, water and care for those new plants as they grow, and on and on our stewardship goes."</i> ● Say: <i>"We are going to build a web of connections to understand our garden system more deeply and our role in stewarding the garden. We will stand in a circle and everyone will pick a card that represents a part of our garden. We will pass a ball of string around the circle. When you have the string, you will:</i> ○ <i>Make a statement about this part of the garden, sharing what you know about this element and why it's an important part of the garden.</i> ○ <i>Make a statement about how we steward and take care of this garden component.</i> ○ <i>Make a statement connecting their component to the previous component.</i> ○ <i>Then you will hold onto a piece of string and throw the ball of string to someone else in the circle.</i> ● <i>There may be some connections we struggle to describe, but we can work together. It is our responsibility to understand the interconnectedness of all components of the garden system so that we can take care of the garden.</i> ● Have students circle up and pass around the Garden System Cards. Ask for a volunteer to begin. Continue until everyone is holding a piece of string. ● Ask for 2 volunteers. Instruct one volunteer to observe what happens when the second volunteer pulls on the string. When a student pulls on their string, it will pull other points of the web toward them. The second volunteer will share what they are seeing, how different components of our garden ecosystem are affected and what it means for stewardship of the garden. ● Say: <i>"Our garden is a powerful place, full of connections. If we take care of these connections, our garden will be a thriving <u>system</u> providing our community with food and beauty, but also a living, dynamic ecosystem made up of many different organisms all growing together, and sustained by soil, water, air and sunlight. While nature provides everything we need, a garden doesn't just happen. It needs us to care for it. <u>Stewardship</u> of the garden requires action"</i> ● 2 min challenge: Have students look for evidence of their garden component in the garden and what stewardship the garden needs at this time. <i>For example: If a student's card is water, they should check the soil moisture and turgidity of the plants to determine where watering may be needed. They could also check the weather and look ahead to see when rains may be coming. If the</i>
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		<i>garden has irrigation, they could observe the irrigation for any needed repairs.</i> ● Bring the class back together to share stewardship tasks they noticed the garden needs. Build a checklist together of tasks to be done and discuss terminology for garden stewardship tasks. ● With extra time: have students engage in acts of stewardship in the garden. Work with your EFG Champion to establish and honor norms and routines for garden stewardship.
5 MIN	Reflect	● Say: Let's take a moment to reflect on what we did today. Think to yourself: ○ <i>What happened?</i> ○ <i>How do you feel?</i> ○ <i>What have you learned?</i> ○ <i>What do you appreciate?</i> ● Make space to share reflections with one another and highlight anything you want to call out and/or appreciate from the time your class engaged in the garden. ● Close out the lesson, say: <i>"We started the day by talking about the places we love. By <u>stewarding</u> and taking care of our garden, we can create a thriving ecosystem and have another place that we love."</i>
3 MIN	EFG Challenge: Take Action	● Say: <i>Here are your EFG Challenges for this month:</i> 1. <i>Visit the garden and take time to complete a stewardship task in the garden this month. [Add details of how students can participate in garden stewardship at your school, for example by connecting with the school's EFG Champion, participating in open stewardship hours, joining the school garden club, etc.]</i> 2. <i>Talk with someone at home and ask them about their experience taking care of plants and/or growing food. What stewardship did they enjoy? What stewardship was challenging? What memories do you have of taking care of the space/plants.</i> 3. <i>Research a stewardship task you're interested in learning more about and share what you learn with your team.</i> 4. <i>Appreciate someone that takes care of a garden. Share your gratitude with them. The class could write a thank you to an OUSD Gardener or the HOTM Farmer.</i>
5 MIN	Transition Back to Classroom	● Scan the garden for anything that may be left behind. ● Collect the materials to bring back to the classroom. Save student work so they can refer back to it. It can also be displayed on the school garden bulletin board. ● Transition back to the classroom

EXTENDING THE LEARNING:

- Create more specific, place-based and challenging cards to complete the activity with. Have students add cards and research the system component. For example: Instead of a card that just says pest, identify the pests in the garden and make informative cards/signage for those pests. Instead of “air” or “soil” add cards for specific gasses and nutrients, such as carbon dioxide, oxygen and nitrogen.
- Use the [OUSD Garden Maintenance Rubric](#) with students and have them share their assessments, noticings for stewardship that needs to be done and ideas for further garden development.
- Use natural cycles to guide a discussion of the garden ecosystem and our role as garden stewards of the garden ecosystem. Explore the water cycle, carbon cycle, nitrogen cycle in more detail through garden observations and stewardship.
- Explore garden stewardship and cultivation across different cultures.
- Tell a garden story from the perspective of a garden element, such as a seed or a pill bug or a water droplet.

THIS LESSON WAS INFORMED AND INSPIRED BY THE FOLLOWING LESSONS/RESOURCES:

- [Nature Lab Lesson Plan: Gardens - Living Systems](#)
-  ECCL Teacher Workshop GIN Activity: Start With What You Know to Discover the Meaning of Interconnectivity