Garden Learning Engagement

LE 4 Exploring different garden methods to address the "Should We" question

Background

Over time, gardeners learn different ways to address "should we" questions in the gardens. They might learn one way to compost from their neighbor, try a technique their grandmother taught them, and find another way to compost by reading a website. Or, they might have an idea about composting that they just want to experiment with. Gardeners often experiment with one solution, try something new if that does work, or try multiple solutions at once. Sometimes, a gardener may choose to do nothing–but they think through the possible outcomes of doing nothing and/or letting the more-than human world do the gardening for them.

Purpose

This LE will demonstrate to young or newer gardeners that there are different methods to address something in the garden. As a more experienced garden educator, you can share several methods for the learners to consider when approaching "should we" questions in the garden. For example, you could hold a crash course to learn about saving seeds. Sharing the variables in every garden situation is another way to help learners begin to develop a "gardening habit of mind," by seeing gardens as complex systems. It is important to be explicit about the thinking patterns of a gardener and how various considerations influence decision making.

Connections to family and community gardening knowledges and practices

Here is another opportunity to refer to the LE 2 Family Tool to incorporate family and community knowledge and practices. Because gardening is a human practice, done by cultures all around the world throughout time, there are countless ways to garden! In gardening, there is no single "right" answer. In fact, there are many "right" ways to garden, and very few "wrong" ways. For example, family members may explain how they deal with weeds. In fact, what is a weed? The "weed" in the garden may be edible and grown purposefully in other cultures and cuisines.

MATERIALS

- Garden Method Demonstration chart
- Tools and materials for each of the garden task methods you will demonstrate (for example, watering: a sprinkler, a hose with nozzle, water cans, irrigation system, rain barrels, etc)
- Poster or white board and writing utensils
- Model(s) from LE3
- Optional: the class and learners' models and writing utensils, if you want to add to your models

LEARNING GOALS

Learners will...

- Understand different methods to use for garden-based decisions
- Learn how to foster a "garden habit of mind"
- Develop and use models to visualize decisions
- Ask questions to elicit deeper reasons for particular decisions

Centering Equitable Practices:

- **Encourage more-than-human perspective taking:** Decisions in ecosystems are often framed in terms of how ecosystems are useful for humans. In order to engage in ethical deliberation about places, however, we need to support learners in taking the perspective of more-than-humans in natural systems. How is this decision good for the trees? How is this place good for the worms? for the soil? Asking these questions will encourage learners to take on multiple perspectives when engaging in ethical deliberation and decision-making around ecosystems.
- **Encourage human connections to ecosystems:** It is common for science learning to position humans as disconnected or apart-from nature. This activity encourages thinking about connections between humans and the rest of the natural world that start from assumptions of complex interdependence.

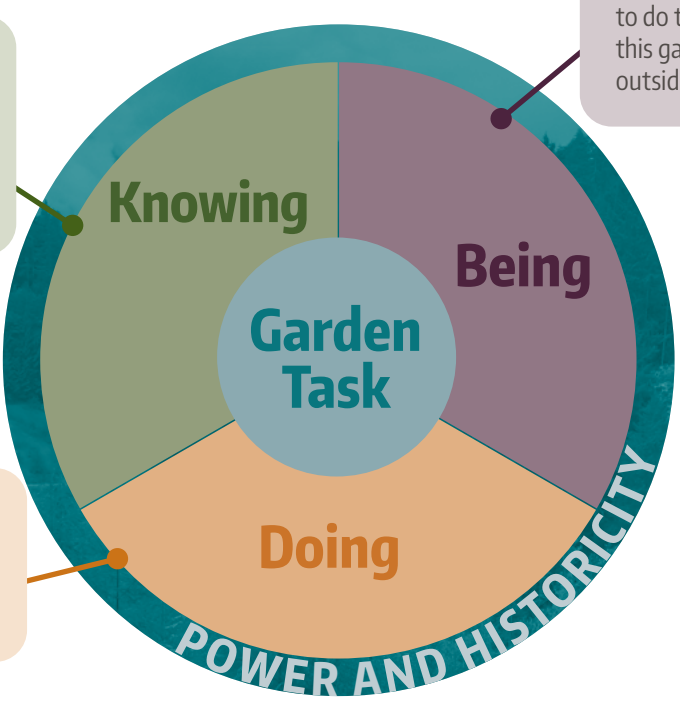
Throughout the instructional sequence we call out moments that tie into the knowing, being and doing of garden practices.

Importance/Intent

Why does it matter to me/my family/our broader community to do this garden task? How does this garden task affect people outside of my community?

Connections to Science Content

What do we need to know in order to do the garden task?



Garden Methods

What are the **methods** we use to do this garden task?

Instructional Sequence

PREPARATION TIME

20-30 minutes

ACTIVITY TIME

55 minutes

Preparation (20-30 min)

You will need some time to think about your specific garden task, and the possible methods you will share with the learners. You should talk with your partner educator and fill out the Educator Planning Tool as a way to gather your ideas and identify any areas that you might need to research or learn more about. The Garden Task Bundles provide general information that will help you narrow down the kinds of methods that will work in your setting. Reflecting on the forms of Doing, Knowing, and Being of the garden task can help to make visible the thinking patterns of gardeners.

Then, gather all of the needed materials. Think about your group size -- you might want to set up stations for each garden task method.

Think through what would happen if the group did nothing. Have some examples ready to share with the children.

Doing,Knowing, Being

Asking an expert garden what is important to know when doing a certain garden task can make visible the wide type of knowledges gardens use when making decisions in the garden.

Part 1: Demonstrate garden task methods (30 min)

» **Explain:** as a gardener, these are three methods that I would consider. We will think about each of the methods, and during LE 8, we will choose which one of the methods we want to use.

» **Demonstrate by showing the learners how to do each method.**

- **For younger learners:** Set up a station for each garden method and let learners rotate through each station all together or in small groups. After an educator demonstrates the method, the learners could take turns trying.
- **For older learners:** Older learners may be comfortable with stations set up with directions, giving them opportunities to try each method on their own.
- **Another option:** The educator can do a presentation using "show-and-tell" each garden method for the learners as a whole group. Provide opportunities after the presentation for learners to try out or interact with the different garden methods. During the demonstration, explain your reasoning for using sing this specific method. This is one way to help learners see a "gardening habit of mind" in action.

Knowing

Showing learners the thinking you do creates a "garden habits of mind", so that they can use this strategy in the future. This is an important connection to the "knowing" of the garden task.

» During the demonstration, more questions might arise from the learners about the different garden methods. Take notes of these questions on the white board or poster board to ask during the Community Interview in LE 5. You can choose to answer some of their questions now, and save some for the Community Interview.

Knowing

Writing down questions that arise is one way to identify "knowings" that you still need to figure out through research and community interview (LE 5 & 6).

Part 2: Evaluating Methods (10-15 minutes)

(this can be done in partners, small group or as a whole group)

Knowing

Identifying who is connected in the garden (water, plants, animals (including humans), soil communities, etc) and how they are impacted by the garden task is an important part of "knowing".

» For each garden task method that you demonstrated, evaluate the method using **Table 2: Evaluating Garden Methods**. **For younger learners:** ask these questions during the demonstration and have an adult record their responses. **For older learners:** record on a white board as a whole group, or have learners record in their garden journal and discuss in pairs. Use the model developed in LE3 to help answer these questions:

- Does this method help our garden? Why or How?
- Does this method hurt our garden? Why or How?
- How would using this method affect the relationships in our model?

Table 1: Evaluating Garden Methods Chart

GARDEN TASK METHOD	METHOD 1:	METHOD 2:	METHOD 3:	METHOD 4: DO NOTHING
Does this method help our garden? Why/How?				
Does this method hurt our garden? Why/How?				
How would this affect the relationships in our model?				

Being

Identifying why families/ communities choose various methods of gardens in an important connection to the "Being" of the garden task.

» Ask learners what kinds of methods they think would work best to do this garden task and why. Encourage them to discuss similar garden tasks they have done with their families, or what other method they could they imagine to address this garden decision.

- Make note of the family methods that are mentioned. These might come up with the community interview.

Part 3: Visualize the Data (10 min)

» Think about how to summarize your garden methods data. Be creative with how you visualize your data! You can make a word cloud, draw a picture, make a timeline, or maybe a map. There are all sorts of ways to visualize what you've learned from your research so far. One simple way is to use "Table 2: Summarizing your Data" to record any themes that are emerging.

- Keep all of this data handy and ready to use for LE 7 "Summarizing Data to Make a Decision".

Table 2: Summarizing your Data

WHAT ARE SOME THEMES OR PATTERNS THAT WE'RE SEEING ACROSS THE THREE METHODS?

LE 4 Educator Backpocket Field Guide

TIME	
30 min	Demonstrate Garden Task Method
15 min	Evaluate Method
10 min	Visualize your Garden Methods Data

Our "Should We" Question:

_____

_____

Connections to Families and Communities:

- How does your family think about this garden task?
- What are the practices your family does around this garden task?
- What relationships do you and your family think about when you do or consider this garden task?
- What kinds of methods do you think would work best to do this garden task? What have you done with your families? What could you imagine?

Centering Equitable Practices

Encourage human connections to ecosystems:

- How are humans helping the garden through these methods? How is this garden helping humans?
- Are there examples of this garden task that mimic nature's garden methods? (example: food forests)

Encourage more-than-human perspective taking:

- How is this garden method good for the trees? How does this garden task affect worms? soil? Water? Salmon? Flowering plants?
- How do more-than-humans participate in this garden task? What are their methods?

Focus on Decision Making: gardeners make many socio-ecological decisions in the garden when considering different methods:

- What values are guiding the decision?
- How does the place you are in impact this decision?
- How does the natural world impact this decision? How is the natural world impacted by this decision?

Connecting to our Model:

- How would using this method affect the relationships in our model?

Notes