

*READY,
SET,
GROW!*

K-2
Modules

READY,
SET,
GROW!

ORIENTATION
TO THE GARDEN

GALLERY
WALK



Module 1:
Lesson 1

(60 Minutes)



Essential Question

WHY DO WE HAVE A GARDEN AT OUR SCHOOL?



Learning Targets

- **I can** explain why our school has a Learning Garden.
- **I can** describe what is in the garden.
- **I can** demonstrate how to ask and answer questions based on observations I make.
- [\(ELA SL.5.1.A and B\)](#)

such as an elbow partner or Back-to-Back/Face-to-Face, use several of the following prompts with:

- What is a garden?
- Where can gardens be found?
- What does it mean to garden?
- What is my garden like at school?
- How do gardens help people?
- Why does our school have a garden?



- Tell students:
- Today we will do some investigation in our garden. We hope that, as we are working and learning in the garden, all of us will know more about how to grow and prepare healthy and delicious food, right here at school.



PREPARATION AND MATERIALS:



- Writing surfaces such as a clipboard
- Pen/pencil
- Scavenger Hunt worksheet



SPROUT (10 Minutes)



- Gather attention using an attention signal, such as Call and Response: Real Food/Grows Here.



- Thinking prompt: Show a picture of the Learning Garden. Using a protocol



GARDEN INVESTIGATION



(40 Minutes)

What is in the garden and how do those parts work together?

EXPECTATIONS PRACTICE:



- Bring the Scavenger Hunt documents (see Garden Journal).
- Group students into pairs or triads for the investigation.



After the initial orientation activity, classes will have the opportunity to establish expectations for behavior in the garden. Determine what expectations are needed for the first garden experience and share those with students. Examples might be: stay together, ask permission to touch the plants, look and listen to the speaker, and follow the directions of the adult.



- Practice an attention signal, such as: Teacher: “Real food.” Students: “Grows here.” Or: “I say ‘veggies,’ you say ‘fruits’—veggies.” “Fruits!” “Veggies.” “Fruits!”

PART 1: EXPLORATION



- Line students up along one side of the garden. Stand on the opposite side so you can address the entire group.



- Use That’s Me, Too! to assess students’ experience with gardens. Teacher makes a statement, and students (and any other adults participating in the lesson) step forward if it applies to them and say, “That’s me, too!”

- This is my first time in a garden.
- I eat fruits or

vegetables.

- Someone I know grows plants at or near their home.
 - I have planted seeds before.
 - There is something in this garden I have not seen before.
- Tell students you are going to play a game next called “I Notice, I Wonder” in the Garden, and ask for a volunteer to help you. In the game, one partner notices something and then the other partner helps them figure out a possible reason for the thing they noticed.
 - Teacher: I notice that there are a lot of small gardens here.
 - Student: I wonder if there are small gardens here because... (The teacher could provide some prompting for the student’s response.)
 - Teacher: I notice there are sticks with writing on them.
 - Student: I wonder if there are sticks with writing on them because...
 - Teacher: I notice that each small garden is only 19 inches tall.
 - Student: I wonder if the gardens are 19 inches tall because...
 - Let the student notice something starting with “I notice” and have the teacher respond by starting with what the student observed and making a “because” statement.
 - Partner students. You could have students count out loud to 13 (half the number of students you have) and then have them



READY, SET, GROW!

ORIENTATION TO THE GARDEN

GALLERY WALK

- find their partner.
- Tell students that, with their partner, they are going to walk around in the garden and play Notice-Wonder. Let them know they should take turns, with one person doing the noticing first and the second providing a wonder for it. Listen so each student gets to do at least three each.
 - Using the attention signal, bring students back together and ask for three volunteers to share their most interesting Notice-Wonder.
 - Tell the students: It sounds like we have a lot to learn about our garden!

PART 2: SCAVENGER HUNT:



1. Tell students that now, with their partner, they are going to notice closely in order to find different things in the garden. They use their Scavenger Hunt (select from two versions depending on reading skills/ age) to guide the investigation. Two things to remember:
 - a. They need to walk in the garden.

- b. When they are done, they will need to stand where they started.
2. Use attention signal to bring students back together.
 3. Ask students to count how many items they found from the list and see how many students were able to locate some or all of the items.
 4. Ask if anyone found something that was not on the list. Students will volunteer examples.
 5. Return to the classroom.




CLOSURE/ ASSESSMENT



(10 Minutes)



- Form groups of four or five from the students' pairs/triads to discuss the prompt: What did you enjoy in the garden today?
 - Round 1: How can I benefit from the Learning Garden at our school?
 - Round 2: What can I do to help our garden grow?
- 
- Call on one student from each group to share something they heard in their group's discussion.

HOW CAN WE MAKE A POSITIVE LEARNING COMMUNITY IN THE GARDEN?



Essential Question

Learning Targets

- **I can** explain how I want to feel when learning in the garden. (Self-Awareness)
- **I can** pay attention by using strategies. (Focus Attention)
- **I can** demonstrate taking turns. (Self-Management)
- **I can** help a friend who might need it. (Social Awareness) ([CASEL](#))



PREPARATION AND MATERIALS:

- Chart paper
- Markers
- Emotion visuals (use what your school uses, such as Zones of Regulation or other visual cues)
- PBIS Schoolwide Matrix, if appropriate



SPROUT



- Gather attention using an attention signal, such as



- Call and Response: Real Food/Grows Here.
- Group students into pairs or triads for a short discussion.



- Tell students: Think about something you have learned to do (ride a bike, read, skateboard, do a magic trick).



- Give students 1 minute (or more, if using triads) to respond to a partner. Prompt students to switch partners after 30 seconds to ensure all students can participate. Then use the second prompt and allow another 30 seconds per student for discussion: Tell your partner how you felt when you were learning to do it? How did you feel once you were successful?
- If appropriate for your class, ask for examples from the group so you have a variety of responses. Many emotions should be identified. If the school has a specific set of tools for teaching emotions, refer to that as a reinforcement.



INVESTIGATION (15 Minutes)

How can we make a positive learning community in the garden?

THINKING PROMPT:



• Ask students: How do you want to feel when we go out to the garden to learn?



• Allow students to discuss their answers with their partners.



• Call on various groups with the question: What did you hear someone say about how we want to feel in the garden?



• Record responses and group similar responses to develop a list of four to six emotions. Examples may include joyful, focused, calm, excited, interested, safe (be sure to include safe).

• Put each emotion on its own piece of chart paper. Prior to showing the video, tell students: Your job is to look for behaviors that might cause us to feel one of these emotions or that will help us learn in the garden.

• Show the [video](#).






• Use the same discussion groups and repeat the prompt. Allow students time to discuss:

- What did you see people doing in the garden that would help us feel good and learn in the garden? (Ex: Taking turns, listening, making eye contact, asking permission to touch, trying new things, helping others, following instructions.)
- Depending on the age of students, select a strategy to narrow down your list to a small number of expected behaviors the class will agree to follow while in the garden.
 - For readers use Vote with Dots: Each student picks two and places a sticky dot on their choice.
 - For non-readers use Consensus: Thumbs up (Yes), thumbs sideways (I can go with that), thumbs down (No).
- Record and review the agreed upon expectations.

 **GARDEN INVESTIGATION**  (15 Minutes)

EXPECTATIONS PRACTICE:

-  • Take students to the Learning Garden and have students form a line so they can all see and hear the speaker. (If it seems appropriate, garden groups could be formed with specific meeting spaces that can be used each time the class goes to the garden.)
-  • Practice an attention signal to be used each time the class goes to the garden. Ex: Teacher says, “Real food,” and students respond, “Grows here.” Or teacher says, “Eat a lot of,” and students say, “Fruits and veggies.” Clapping rhythms are another good strategy for an attention signal. See this example from [The Teaching Channel](#).
-  • Tell students they will work with their partner to follow some instructions and practice the expectations. Each time, the teacher will

use a launch word, such as “go” and call students back with the attention signal.



- Find a flower and take turns smelling it. Walk back to your spot when the attention signal is given.
- Locate a garden tool. Walk back to your spot when the attention signal is given and tell someone else what you found.
- Go to a plant that looks like something you have eaten. If nothing looks like something you have eaten, select a plant you might like to try. Walk back to your spot when the attention signal is given and tell a new person what you found.
- Some plants like shade and some plants like sun. Go near a plant that likes what you like, sun or shade. Walk back to your spot when the attention signal is given.
- Find someone you have not talked to yet today. When I say “go,” tell them, “Thank you for helping make the garden a great place to learn.”



- Use the attention signal to form a line and return to the classroom.



**CLOSURE/
ASSESSMENT**



(15-20 Minutes)



- Distribute the Garden Journals to students (or refer to them if the Scavenger Hunt was included as part of the journal).
- Tell students: This is your Garden Journal. You will use this each time we do a garden activity. It will be yours to take home after we finish learning in the garden. Take good

care of your journal each time we use it.



- Ask students to open their Garden Journals to Our Garden - Creating Community.
- With support from an adult if needed, students will record the expectations in the Garden Journal. (If students have not developed writing skills yet, a sample produced by the teacher can be pasted into the journal at a later time.)
- Next, students will assess the expectations activity in the Garden Journal. This can be led by the teacher or done with partners if students are independent in reading and writing. Students who are emerging writers can use a symbol or color to assess their progress.



Call Out: Once **expectations** are agreed upon, develop a poster that will be used to reinforce expectations during garden lessons. This can be adjusted depending on the age of students. If particular students will struggle with expectations, the posters could be made into individual checklists or attached to the clipboards students use in the garden as reinforcement. It may be good to designate a safe space to take a break during a lesson, if needed, and ensure all students are aware of the process for taking a break.



**READY,
SET,
GROW!**

**ORIENTATION
TO THE GARDEN**

**CREATING
COMMUNITY**

K-2

HOW CAN WE MAKE A POSITIVE LEARNING COMMUNITY IN THE GARDEN?



Essential Question



WHAT IS YOUR NAME?

What are the expectations in the garden?

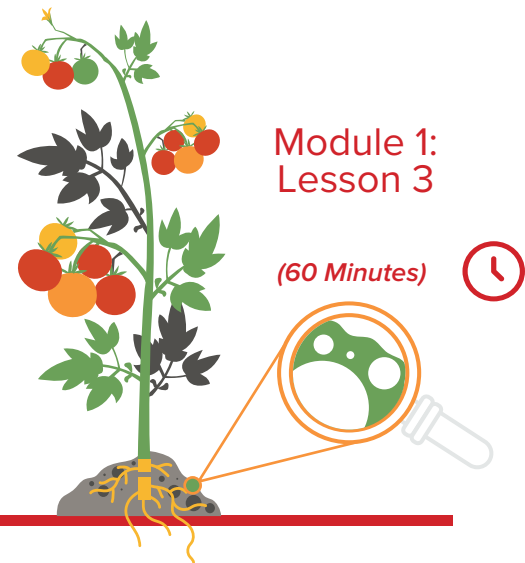
How well did our class do following the garden expectations?

How well did you do following the garden expectations?

Create a drawing to describe how you felt during the garden activity today.

Who can you tell about the garden after school?

**READY,
SET,
GROW!** | **OBSERVING
CLOSELY**



Essential Question

WHAT IS IN OUR SCHOOL GARDEN?



Learning Targets

- **I can** make observations using all of my senses.
- **I can** select tools that will allow me to observe more closely.
- **I can** draw conclusions about things growing in the garden based on my observations.
- [\(NGSS K-LS1-1\)](#)



PREPARATION AND MATERIALS:

- Print and post four to six pictures from your garden or use photos from www.biggreen.org
- Magnifying glasses
- Garden Journal



SPROUT

- Gather students with an attention signal such as a Call and Response: Teacher says, "Real food," and students respond, "Grows

here."

- Group students into triads for small group discussion.
- Select one of the videos below to use as a thinking prompt. Tell students that during the video, they will be listening for what it means to observe like a scientist.
 - [Scientific Observation](#) (for older students)
 - [Jerry O'Connell Explains the Word Observe](#) (Sesame Street)
- Ask students the following prompts one at a time and then allow them to talk for up to **1 minute** with their partner before asking for feedback in the large group:
 - What did you see in the video that could help us to be good observers? Looking for the students to use five senses and look carefully for details from different angles or points of view.
 - Scientists use tools to make observations. What tools might a scientist use? Looking for: magnifying glasses, microscopes, rulers, measuring tapes, weights and scales, thermometers, clocks, stopwatches, etc.
 - How might a magnifying glass be helpful when looking at things in our garden?

Looking for ways the tool helps us see things we cannot see as well with just our eyes or to see them more clearly than with only our eyes. The tool makes our observations more accurate.

- Tell students: Today we are going to use four senses (sight, touch, smell, and sound) and a scientific tool called a magnifying glass to do an observation in the garden. When we make observations, we can only report what we actually see, hear, smell, or feel. We cannot add our own ideas, guesses, or conclusions yet.

inside, you are going to use this process so everyone has a chance to make and share their observations. We are going to model this one time for the group.

- Seek two volunteers from the class. Ask the students to look closely at the image and think of one thing they notice. Sound the signal. The teacher begins by sharing an observation: “I see a plant with three leaves.” Then students have a chance to share their observations. Raise your hand, listen for the signal, walk to the next station. The teacher can also model how to extend an idea by saying something like, “I liked how you noticed that plants had different numbers of leaves. I also noticed that they are all green, but not the same shade of green.”
- Ask students to clarify the instructions with their triad and ask for questions if needed to clarify the task.
- Remind students to wait for the teacher signal before talking and that they need to raise their hand before their group can move on. There may be more than one group at each picture.
- Send students to their first station. Allow about 3 minutes per station. Rotate three times.



GARDEN INVESTIGATION

(40 Minutes)

How can we observe like a scientist in the garden?

CLASSROOM PRACTICE:

(20 Minutes)

- Distribute the Garden Journals and review the viewing protocol as a class.
- Tell students: While looking at the garden pictures



GARDEN OBSERVING

(20 Minutes)

- Prior to leaving for the garden, be sure to review any garden expectations. Since

**READY,
SET,
GROW!** | **OBSERVING
CLOSELY**

students may be touching things in the garden, reinforce the expectations for touching with care.

- Distribute magnifying glasses to students.
- Tell students that when they go outside, they will be able to use the magnifying glass as a tool to improve what they can see. They will also use their other senses to make observations about what they see, smell, feel, and hear in the garden. Walk to the garden and assign groups to different areas of the garden.
- Encourage students to observe very carefully, from different points of view, and to use the magnifying glass to increase what they can observe with their eyes.
- Students who can write should record observations in their Garden Journals.
- Students should spend about 5 minutes at each garden station. They will do two rotations using the Observing Closely Protocol. Use the signal to start a discussion and rotate the

students.

- At the conclusion of the activity, return to the classroom for a closure.



**CLOSURE/
ASSESSMENT**



(10 Minutes)



- Have students select a new partner in the classroom.



- Allow them time to review the data they collected verbally or by sharing their journals.



- Provide the following prompt and allow time for peer discussion with a partner:
 - Now that you have done some observing, can you make any conclusions? For example, if you noticed that some plants had brown leaves, one conclusion might be that the plant needs water. Share some conclusions you might have from your observations today.



- Students who can write should complete the summary in the journal as a writing task.
- Collect Garden Journals.



Observing Closely Protocol



	Look closely at your sample.
	Listen for the teacher's signal.
	Once you hear the signal, each group member shares his or her ideas while the other group members listen.
	After all group members have shared, raise your hand.
	Listen for the teacher's signal.
	Calmly and quietly walk around the room to the next poster/station.
	Sit in a circle with your group and repeat.

READY,
SET,
GROW!












OBSERVING
CLOSELY



Essential Question

WHAT IS OUR LEARNING GARDEN?

HOW WILL WE PRACTICE OBSERVING?

	Look closely at your sample.	
	Listen for the teacher's signal.	
	Once you hear the signal, each group member shares his or her ideas while the other group members listen.	
	After all group members have shared, raise your hand.	
	Listen for the teacher's signal.	
	Calmly and quietly walk around the room to the next poster/station.	
	Sit in a circle with your group and repeat.	
What did you observe in the garden?		
		

What conclusion can you make about your observations?



Essential Question

WHAT DOES A PLANT NEED TO GROW?



Learning Targets

- **I can** conduct an investigation to collect evidence about how plants grow.
- **I can** explain what plants need to grow based on my observations.
- **I can** make a prediction about the life cycle of plants in the garden.
- **I can** make a prediction about how the needs of one plant may be different than the needs of another plant. ([NGSS K-LS1-1, 2-LS4-1](#))



PREPARATION AND MATERIALS:



- Select a text that is appropriate for the students in your class as a read-aloud:



• *How a Seed Grows* by Helene J. Jordan; illustrated by Loretta

Krupinski

- *The Magic School Bus Plants Seeds: A Book About How Living Things Grow* by Joanna Cole; illustrated by Bruce Degen
- Rulers
- Magnifying glasses
- For reinforcement, pre-teaching, or an alternative option to represent the content, consider these videos:
- [What a Plant Needs to Stay Alive](#) (Jack Hartman)
- [How Does A Seed Become A Plant](#)



SPROUT




(15 Minutes)

- Gather students with an attention signal, such as a Call and Response: Teacher says, “Real food,” and students respond, “Grows here.”
- Have students identify a thinking partner to talk with during this part of the lesson.
- Ask students the following prompts one at a time and then allow them to talk for up to one minute with their partner before asking for feedback in the large group?



- What do people need to survive? Looking for food, air, water, but there will also be answers like shelter, love,

- and friendship.
- What do other animals need to survive? Looking for similar answers but could also include how animals need habitats or in the case of pets, someone to care for them.
- What do plants need to survive? Looking for sun, air, water, nutrients (food), the right environment (soil).

 • Tell students: I am going to read this book about plants. As I read, it is your job to listen for evidence that would help us be sure we know what plants need to grow.


- Read the text you have chosen, pausing every few pages to ask students if they have heard any evidence and allow them 30 seconds to talk with their thinking partner.
- At the conclusion of the text, have students open their Garden Journals and record responses. If students are not independent, the teacher


can record thoughts on chart paper and/or begin a word wall.


- Review the strategies for Observing Closely and remind students that, when observing in the garden, it is important to look closely and use their senses.

INVESTIGATION (30 Minutes)

- Prior to leaving for the garden, be sure to review the garden expectations.
- Distribute magnifying glasses and rulers to students (or have a station for students to get them in the garden).

-  • Tell students that when they go outside, they will be able to use the magnifying glass as a tool to improve what they can see. They can also use the ruler to measure how tall and wide a plant is or how far apart they are from other plants.
- They will also use their other senses to make observations about what they see, smell, feel, and hear in the garden. Walk to the garden and assign groups to different areas of the garden and tell students they will be looking at one type of plant today.

-  • Encourage students to observe very carefully, from different points of view, and to use the magnifying glass to increase what they can observe with their eyes and the ruler to make accurate measurements.

-  • Students who can write should record observations in their Garden Journals. Students who are not independent writers should work as a team, with each student being responsible for one or two




observations to share with the larger group. The teacher may need to read each prompt from the Garden Journal out loud and then allow students to observe and report back before adding another prompt.

- At the conclusion of the activity, return to the classroom for a closure.

plants need to survive?

- Students who can write should complete the summary in the journal as a writing task.
- Collect Garden Journals.

 **CLOSURE/
ASSESSMENT**  (10-15
Minutes)

-  • Have students select a new partner in the classroom.
-  • Allow them time to review the data they collected verbally or by sharing their journals.
-  • Ask for teams to identify how their observations were similar and different.
- Provide the following prompts and allow time for peer discussion with a partner:
 - What do all plants need to grow?
 - What conclusions can we make based on our observations in the garden about what the



**Essential
Question**

**WHAT DOES A PLANT
NEED TO GROW?**



WHAT IS YOUR NAME?

What do all plants need to survive?



--	--	--

What did you observe?

What conclusions can you make from the observation that could explain what the plant needs to grow?

--	--	--

How much of the plant was in the sun?

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How big were the plants?

--	--	--

How much space was there between each plant?

--	--	--

How did the soil look and feel around the plant?

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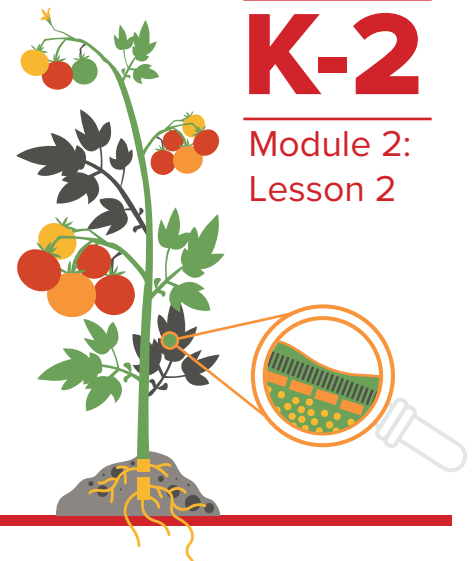
Describe the leaves on the plant.

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SUMMARY: What do all plants need to grow? How did your observations help you make predictions about what each plant needs?

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HOW DO THE PARTS OF A PLANT WORK TOGETHER TO HELP IT GROW?



Essential Question



Learning Targets

- **I can** explain what each part of the plant does and identify examples in the garden.
- **I can** use my observations to make a prediction about how plant parts work together. ([NGSS LS1.A](#))



PREPARATION AND MATERIALS:



- Select a related video or provided text or other resource available in your school



- Garden Journals



SPROUT (10-15 Minutes)



- Gather students with an attention signal, such as a Call and Response: Teacher says, “Real food,” and students respond, “Grows here.”






- Group students in pairs or triads for discussion.


- Select a text or video to share as a thinking prompt for the question: What parts do all plants have?
 - [Parts of a Plant: I’m A Plant](#) (song and video)
 - [Sid The Seed](#) (read aloud)
- Allow students to discuss the prompt with peers and then randomly select students to report. Record a list on the board, chart paper, or word wall, and include all of the following: Seeds, roots, stems, leaves, flowers, fruits.
- Distribute the Garden Journals. Students will record the following functions in their notes:
 - **Seeds** hold the new plant.
 - **Roots** take water from the soil.
 - **Stems** hold plants up, move food and water inside the plant.
 - **Leaves** make food for the plant.
 - **Flowers** contain seeds to make new plants.
 - **Fruit** protects fertilized seeds.
- Tell students: All plants have these parts, although sometimes they look different. Each of these parts have special jobs, or functions, which are necessary and work together. Today we will investigate plant parts growing in the garden.

**READY,
SET,
GROW!** | **WORKING
TOGETHER** | **PARTS OF
A PLANT**





 **INVESTIGATION**  (35 Minutes)

- Prior to leaving for the garden, be sure to review the garden expectations.
- Ensure students have their Garden Journals.
-  • Gather students in one spot for the initial instructions before dismissing to predetermined areas of the garden.
- Tell students:
-  • Today you will be observing closely again. This time, you will be looking for examples of the plant parts we just learned about. The plant parts are listed in your Garden Journal. You will mostly be using your sense of sight today.
-  • Walk to the garden and assign groups to different areas of the garden and tell students they will be looking at one type of plant today. Tell them: Remember to observe very carefully from different points of view.
- Emerging readers can use Version A of the Garden Journal. Version B is appropriate for

independent readers.

-  • Allow students 10-15 minutes to locate examples of each plant part and to make observations of how similar plant parts can look very different.
- At the conclusion of the activity, return to the classroom for a closure.

 **CLOSURE/
ASSESSMENT**  (10 Minutes)

-  • Have students select a new partner in the classroom.
-  • Allow them time to review the data they collected verbally or by sharing their journals.
- Ask for teams to identify how their observations were similar and different.
- Provide the following prompt and allow time for peer discussion with a partner:
-  • How were the plants you observed similar and different?
- How does each plant part depend on other plant parts?
- Students who can write should complete the summary in the journal as a writing task.
-  • Collect Garden Journals.

HOW DO PLANT PARTS WORK TOGETHER WITH THE ENVIRONMENT TO GROW?



Essential Question





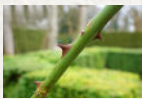



<p>Circle the items that all plants need to grow?</p>	
<p>Plant Parts</p>	
<p>Word</p>	<p>Examples from the garden. Circle if you find this plant.</p>
<p>Seed</p>	
<p>Root</p>	
<p>Stem</p>	
<p>Leaf</p>	
<p>Flower/Fruit</p>	
<p>SUMMARY: Each plant part has its own job. How do the plant parts work together with their environment to help the plant grow?</p>	

HOW DO PLANT PARTS WORK TOGETHER WITH THE ENVIRONMENT TO GROW?



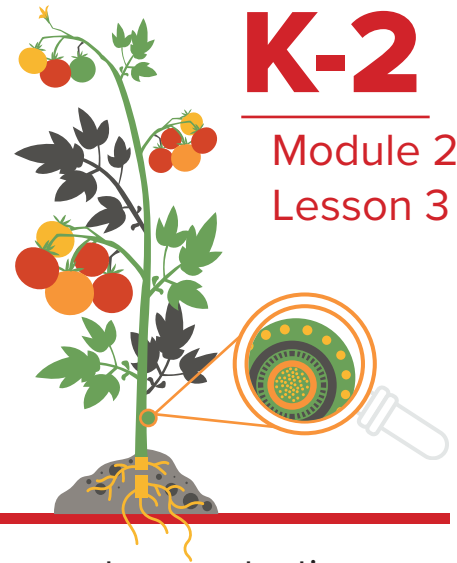
Essential Question



Why are these important to plants?	<input type="checkbox"/> Sun: <input type="checkbox"/> Water: <input type="checkbox"/> Soil: <input type="checkbox"/> Air:	
Plant Parts	Examples from the garden. What do you observe?	What is the function of this part of the plant?
Seed 	Sunflower Seeds Corn	
Root 	Carrots Beets Turnips Parsnips	
Stem 	Asparagus Celery Rhubarb	
Leaf 	Kale Spinach Cabbage	
Flower 	Broccoli Cauliflower Nasturtium	
Fruit 	Tomato Cucumber Pumpkin Strawberry	

SUMMARY: Each plant part has its own job. How do the plant parts work together with their environment to help the plant grow?

HOW DO PLANTS AND ANIMALS WORK TOGETHER?



Essential Question

Learning Targets

- **I can** identify how plants and animals can work together.
- **I can** use my observations to make a prediction about how plants and animals work together in the garden. ([NGSS 2-LS2-2](#))

PREPARATION AND MATERIALS:

- Cue the video or provided text or other resource available in your school
- Garden Journals

SPROUT (20 Minutes)

- Gather students with an attention signal, such as a Call and Response: Teacher says, “Real food,” and students respond, “Grows here.”
- Group students in pairs or triads for discussion.

- Ask the following prompts one at a time, allowing students to discuss with their partners for 30 seconds each. Call on students to share their thoughts.
- What plants have we observed in the garden?
- Did you notice which plants were growing near each other?
- What animals have you observed in or near the garden?
- How might plants and animals work together?
- Play the video to share as a thinking prompt for the question, How do plants and animals work together?
- [Video: How Plants and Animals Depend On Each Other](#)
- After watching the video, ask students: What can you add to your ideas about how plants and animals work together?
- Allow students to discuss the prompt with peers and then randomly select students to report. For the lesson, focus on the following: Pollination, spreading seeds, improving the soil, and providing food.
- Tell students: Plants and animals need each other to survive. Today we will investigate how plants and animals help each other in the garden.

 **INVESTIGATION**  (30 Minutes)

CLASSROOM PRACTICE:

- Students should work in pairs or triads.
- Distribute the Garden Journals. Students will record the following functions in their notes:
- Review the first row of the journal and tell students that they will be exploring these relationships today.
- Read the statements aloud or seek a student volunteer to read.
- Work through each row one at a time. Starting with the prompt:
 - How do these plants and animals work together?
- **Row 1:** Bees pollinate the strawberry flower which allows the plant to grow. Bees make honey from the pollen. Robins and other birds eat the seeds and spread them with their droppings.
- **Row 2:** Worms loosen the soil, making room for the carrot to grow. Worms also add nutrients to the soil through their casings and droppings. Carrots absorb nutrients through their root

hairs. Rabbits eat the carrot tops and then their droppings add nutrients to the soil.

- **Row 3:** Corn creates a stalk for the beans to climb up which keeps them off the ground. Deer eat corn and beans, even after the plant has died. Deer droppings add nutrients to the soil.
- Tell students: Today we will try to find similar relationships in the garden.

GARDEN PRACTICE:

- Prior to leaving for the garden, be sure to review the garden expectations.
- Ensure students have their Garden Journals.
- Gather students in one spot for the initial instructions before dismissing to predetermined areas of the garden. Students should work in pairs.
- Tell students:
 - Now we will go into the garden and see if we can find any evidence that plants depend on other plants and animals to grow. You will be observing closely again. You should record or remember any examples you find about plant and animal relationships. The plant parts are listed in your Garden Journal. You will mostly be using your sense of sight today.
- Walk to the garden and assign groups to different areas of the garden and tell students they will be looking at many types of plants and also looking for animals or evidence of animals. Tell them: Remember

to observe very carefully from different points of view.

- Allow students 5 minutes to locate examples.
- Call students together using an attention signal. Ask for volunteers to share observations. Change where students are collecting observations. Either rotate groups to a second station or move groups to where students found evidence.



This will allow the teacher to move groups to areas of the garden where evidence is found. Some evidence might be the actual animals (including insects); other evidence might be tracks, droppings, and holes in leaves. This is also a good time to point out plants that are growing together and ask students to imagine why those plants grow well together.



- Allow another 5-10 minutes to continue the observation and then use an attention signal to focus the group and return to the classroom for a closure.

CLOSURE/ASSESSMENT

 (10 Minutes)



- Have students select a new partner in the classroom.



- Allow them time to review the data they collected verbally or by sharing their journals.

- Ask for teams to identify how their observations were similar and different.

- Provide the following prompt and allow time for peer discussion with a partner:



- What are things all plants and animals need to survive?
- What are some ways plants and animals help each other?
- Students who can write should complete the summary in the journal as a writing task.












- Collect Garden Journals.



**Essential
Question**

**HOW DO PLANTS
AND ANIMALS WORK
TOGETHER?**



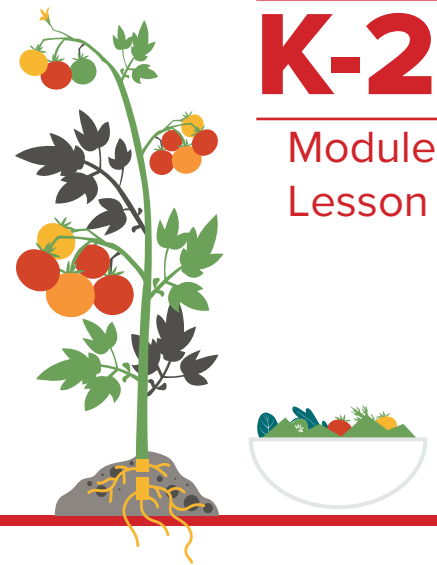
<p>What are some ways plants and animals help each other?</p>	<p>Animals add nutrients to the soil. Bees, birds, and butterflies pollinate flowers so fruit can grow.</p>		
<p>How do these plants and animals work together?</p>			
<p>How do these plants and animals work together?</p>			
<p>How do these plants and animals work together?</p>			
<p>What evidence can you find about plant and animal relationships in the garden?</p>			
<p>SUMMARY: All plants and animals need similar things to survive, but how do the unique things about some plants and animals help them work together?</p>			

**READY,
SET,
GROW!**

**EDIBLE
PLANTS**

K-2

Module 3:
Lesson 1



Essential Question

WHAT CAN I EAT IN THE GARDEN?



Learning Targets

- **I can** explain which parts of the plants in the garden are edible.
- **I can** describe why eating plants is good for me.
- **I can** identify edible plant parts in the garden.
- **I can** create a model to show what I know about edible plant parts. (NHES 7.2.1, 7.2.2)



PREPARATION AND MATERIALS:



- [Google Slide Presentation: Plants We Eat](#)
- Children's harvest scissors
- Adult harvest scissors
- Harvest bucket or other containers
- Scale
- Harvest Cards - if available



SPROUT ⌚ (20 Minutes)



- Gather students with an attention signal, such as a Call and Response: Teacher says, "Real food," and students respond, "Grows here."



- Have students identify a thinking partner to talk with during this part of the lesson.
- Introduce the word: Edible.
- That's Me, Too! Activity
- Show Image 1 - Carrots. If the plant is something that students have tried before, they should stand up or raise their hand and say, "That's me, too!" Then ask students to identify which part of the plant we eat, with their partner.
- After students guess, click the slide for the text to animate.
- Repeat for examples that include all parts of the plant and all the colors of the rainbow.
- If students are practicing note taking, they could complete the Garden Journal notes sheet for this lesson.
- Ask students to discuss with their partner: What vegetables do you like to eat the

**READY,
SET,
GROW!** | **EDIBLE
PLANTS**

best? What part of the plant do you eat and how? Allow



one minute, signal pairs to switch partners. When one partner is talking, the other partner is listening and looking at their classmate.



- Tell students: Today we are going out to the garden to harvest food for a tasting party. It will be very important to listen carefully to instructions so that we get all the food we need and treat the plants with care.



**INVESTIGATION
& HARVESTING**



(30 Minutes)

- Prior to leaving for the garden:
 - Review the garden expectations.
 - Create garden teams of three students.
 - Distribute Harvest Cards. (If Harvest Cards are not available, [click here for a great alternative.](#))
- Consider whether an adult will be needed to demonstrate and/or

guide proper harvesting.






- Tell students that when they go outside they will work with their team to harvest a particular amount of produce. They will all take turns harvesting the plant on their Harvest Card.
- Walk to the garden and call students' attention using an attention signal. Tell students what signal means they can start and stop harvesting.
- Designate the location where the harvest bucket(s) and scale will be placed.
- Have one student from the group retrieve a pair of children's harvesting scissors.
- Dismiss students to the section of the garden where their assigned produce is growing and tell them how much of that plant is needed based on the chart below.

Plant	Amount Needed
Spinach	5 bunches
Kale	10 leaves
Radishes	10 roots
Carrots	15-20 roots
Herbs (basil, mint, parsley)	1 cup total
Onions, garlic, and chives	5 green onions and stems, one handful of chives, 2 garlic bulbs
Cucumbers	5
Tomatoes	10
Green Beans	2-3 cups
Bell Pepper	9-10 of a variety of colors

- Allow 10-15 minutes for students to harvest (plan for more time if students have not harvested in the garden before).
- Either an adult or students with adult support will enter the harvests into the Harvest Tracking Form (online or on paper).
- Once harvests are complete, return to the classroom and store produce in a safe place for the next cooking lesson.

 **CLOSURE/
ASSESSMENT**

 (10 Minutes)







-  • Have students select a new partner in the classroom.
-  • Allow them time to review the data they collected verbally or by sharing their journals.
 - Ask for teams to identify how their observations were similar and different.
 - Provide the following prompt and allow time for peer discussion with a partner:
 -  • What do all plants need to grow?
 -  • What conclusions can we make based on our observations in the garden about what the plants need to survive?
 - Students who can write should complete the summary in the journal as a writing task.
-  • Collect Garden Journals.

**READY,
SET,
GROW!** **EDIBLE
PLANTS**

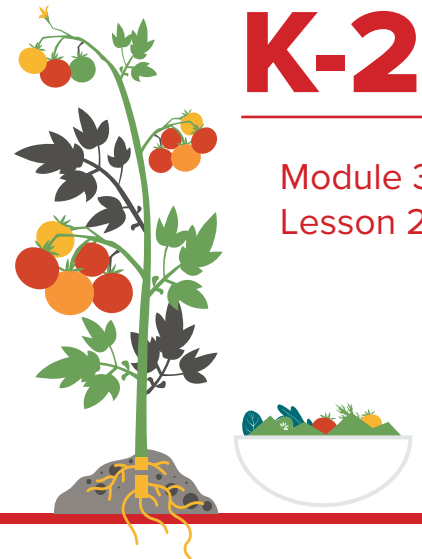


Essential Question

WHAT CAN I EAT IN THE GARDEN?

Edible	Something people can safely eat.
Edible Plant Part	Which plant part is edible in each example?
Radish	
	
Carrots	
	
Corn	
	
Broccoli	
	
Asparagus	
	
Blueberry	
	
Eggplant	
	
Potato	
	
Cauliflower	
	

SUMMARY: How should we eat plants to get the most health benefits? What new plants are you looking forward to trying?



Essential Question

HOW CAN I EAT THOSE VEGGIES?



Learning Targets

- **I can** choose the best way for me to eat vegetables and fruits.
- **I can** show how to properly clean vegetables from the garden.
- **I can** tell someone I know what I learned about plants in the garden. (NHES 2.2.1, 7.2.1)



PREPARATION AND MATERIALS:

- Two options, or even a combination of the two, could be successful for this food prep activity:

- Organize students as you might for reading groups. When students come to the demo station (reading table), they will work with the teacher to prepare the harvest they gathered in the garden. When not



at the demo station, students can work on various station activities or coloring pages.



- Conduct a whole class demo. Call each group up to the demo station as you work with the produce that the group harvested. You may want to provide coloring sheets as a way to keep students occupied during the demonstration. Use of a brain break or movement activity when between the salad and dip options would also help students stay engaged.
- Recipe or prepared version of [ranch dip](#) and [salad dressing](#).
- Salad spinner/strainer
- Knife for use by an adult
- Vegetable peeler
- Ingredients for recipes (dip and dressing)
- Mixing bowls and spoons
- Paper towels



SPROUT (10 Minutes)



- Gather students with an attention signal, such as a Call and Response: Teacher says, “Real food,” and students respond, “Grows here.”
- Organize students into their garden groups



**READY,
SET,
GROW!** **PLANTS
ARE TASTY**

- from the harvesting activity.
- Use the following prompts and allow students to briefly discuss (30 seconds to 1 minute):
 - What did you learn about eating plants yesterday?
 - What are you excited to try today?
 - Who did you tell about the things we learned in the garden and why did you choose that person?
 - After each prompt, select a few students to share. Make sure you call on each group during the discussion.
 - Tell students: Today you will be tasting the harvests from the garden and making some decisions about the way you think these vegetables taste the best. You will also choose someone outside of our class to tell about the garden and all we have learned.
 - Have students take out their Garden Journals and review the notes and tasting rubric with them. They will complete the

rubric once for the vegetable in its original state and once when it is combined with other things.

 **INVESTIGATION**  (40 Minutes)

- Call students from each harvest group to the demonstration table.
- Students will use the table below to guide the discussion with each group. Students who can write could take notes in their Garden Journal.
- Students and staff should all wash hands before handling produce.
- Once produce has been washed, follow the instructions in the table. Select a small sample for students to taste as it is before adding it to one of the recipes.
- Allow students to either add elements to the salad or to a plate of fresh cut vegetables for dipping.

Plant	Amount Needed	Preparation Directions
Spinach (leaf)	5 bunches	Students should trim stems and wash the spinach leaves in the salad spinner. They can lay the greens out on paper towel and pat dry if needed. Tell students: Spinach is a source of iron, protein, vitamins, and minerals. Some people call it a superfood because it is so good for us. Today we will try it in a salad.
Kale (leaf)	10 leaves	Students should trim stems and wash the kale leaves in the salad spinner. Kale stems are not good to eat so leaves should be trimmed away from the stem. Students can lay the kale out on a paper towel and pat it dry if needed. Tell students: Kale is a source of iron, fiber, vitamins, and minerals. Some people call it a superfood because it is so good for us. Today we will try it in a salad.
Radish (root) (Radish leaves are not part of this experience and can be discarded or composted.)	20 radishes	Students should clip the radish from the greens with scissors and scrub the radish with a vegetable brush. Once washed, the teacher should slice one radish so students can try it. Radishes have a peppery taste which some students may find spicy. Slice the remaining radishes and set them aside. Tell students: The radishes will be used for dipping, as well as in the salad. Radishes provide Vitamin C and fiber along with other vitamins and minerals.
Carrots (roots and leaves)	20-30 carrots	Students should clip the carrot from the greens with scissors and the root should be scrubbed with a vegetable brush. Tops can be rinsed well. Once washed, the teacher should slice one carrot so students can try it. Slice the remaining carrots into sticks and set aside. Chop the carrot tops into small pieces. Tell students: The carrot roots will be used to dip and tops will go in the salad. Carrots provide beta carotene, Vitamin K, fiber, and potassium.

**READY,
SET,
GROW!** **PLANTS
ARE TASTY**

Plant	Amount Needed	Preparation Directions
Herbs: basil, mint, parsley, dill (leaves)	1 cup total	Students should use the salad spinner to wash each herb separately. Herbs can be patted dry. Once dry, the teacher should allow students to sample a few leaves of each herb. Then herbs can be chopped. Tell students: Some of the herbs will go into the dip and others into the salad. Herbs are a great source of vitamins and minerals. They are also a healthy seasoning for almost anything!
Cucumbers (fruit)	5-7	Students should wash cucumbers in cold water with a vegetable brush and pat them dry with paper towels. Students can peel some of the cucumbers and leave the skins on others. The teacher should slice some cucumber to make coins and allow students to try it. Then, slice the cucumbers vertically. Allow students to scoop out seeds. Tell them that seeds can be eaten depending on preference (the scooping gives them a task to do). Once the cucumbers are prepared, cut some cucumbers into sticks and others into bite-size pieces. Tell students that some will go into the salad and others will be used to dip.
Tomatoes	10	Students should wash tomatoes under cool water. Remind students that the tomatoes have a very thin skin so they need to be gentle when washing. They can pat the tomatoes dry. The teacher can remove the tomato stem and slice tomatoes in half. Allow students to scoop out the seeds and liquid, leaving only the meat. Cut wedges for students to sample. The teacher can chop the remaining tomato and let students know it will be used in the salad. Tomatoes are great sources of antioxidants, folate, and vitamins C and K.
Green Beans	2-3 cups	Students should rinse green beans in a strainer. This can be done in small batches after tossing by hand to remove excess dirt. Students should then break off the ends of the beans. Some of the beans can be sliced for use in the salad. The rest can be used for dipping.
Bell Peppers	9-10 in a variety of colors	Students will rinse and dry peppers. Teacher can slice the top of the pepper and show the ribs and seeds. Then some are sliced for dipping and others are diced for the salad. Students can sort by color or shape.

**READY,
SET,
GROW!** **PLANTS
ARE TASTY**

K-2

- When the vegetables have been prepped, set up tasting stations.
- Either an adult or with support from an adult, students may add some salad w/ dressing and raw veggies w/ranch dip to their plates.
- Remind students that it is OK to say, "No thank you," to samples that are not their favorite.
- Thank students for their efforts in preparing a tasting from the garden.
- Provide students with directions for cleaning up.

 **CLOSURE/
ASSESSMENT**

 (10 Minutes)



- Have students select a new partner in the classroom.
- Offer the following discussion prompts:
 - What was your favorite part of learning in the garden?
 - How can the garden help us be healthy?
 - Who will you tell about how eating plants from the garden can help us be healthy and strong?
- Garden Journals may be sent home with students.

Learning Garden Scavenger Hunt

Label each photo and circle living or non-living for each item. Put a check mark to the left of the picture if you find it in the Learning Garden.



Label _____
Living or Non-Living



Label _____
Living or Non-Living



Label _____
Living or Non-Living



Label _____
Living or Non-Living

Label _____
Living or Non-Living



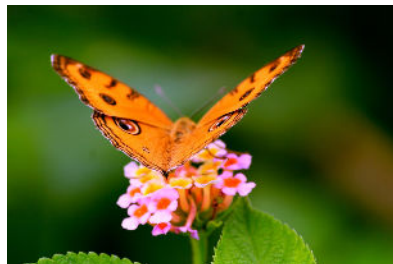
Label _____
Living or Non-Living



Label _____
Living or Non-Living



Label _____
Living or Non-Living



Label _____
Living or Non-Living

Student Name: _____

LEARNING GARDEN SCAVENGER HUNT

Circle the items you can see in the Learning Garden.

