

Getting to Know the Garden

THEME: LIVING UP TO OUR FULL POTENTIAL

4TH
GRADE

65
MIN.

FALL

ESSENTIAL QUESTION

How can we explore the garden respectfully?

LEARNING OBJECTIVE

✓ Students will be able to use their senses to familiarize themselves with features in the garden.

CONCEPTS

expectations explorations
five senses observation

Engaging the Classroom Teacher

- Prior to the lesson, see whether the teacher is comfortable leading one of the stations during Action Step 5. Adjust your lesson and plan accordingly.
- During Action Step 2, suggest that the teacher circulate through the garden to support students during their bingo hunt.

LESSON DESCRIPTION

This lesson serves as an introduction to the garden for upper grades, so adapt it accordingly for third or fifth grade. Students discuss expectations in the garden, play garden bingo, and then move through rotations of activities meant for them to thoughtfully engage with the plants and other living things in the garden.

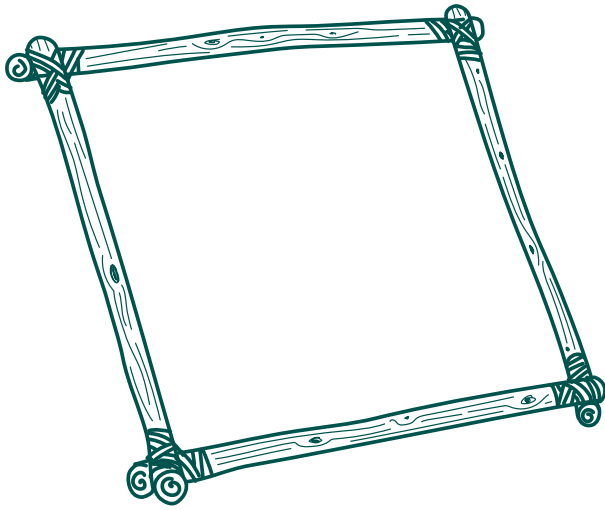
The lesson Garden Explorations serves as the introduction to the garden for younger grades. You're encouraged to mix and match stations and activities from both lessons for what will best meet the needs of your students.

MATERIALS

- For each student:
 - Fall Garden Bingo Worksheet (p. 443-450)
 - Life in a Square Foot Worksheet (p. 451)
 - Clipboard
 - Pencil
- An empty 1 foot by 1 foot square, or quadrat (see Preparation)
- 4–5 trowels
- Full roll of painter's tape
- Yardstick, ruler, or measuring tape
- String
- Paint stirrers
- Magnifying glasses (optional)

PREPARATION

- Photocopy full set of Fall Garden Bingo Worksheets, multiplying the amount so there's one for each student. Shuffle the sheets, so they can be handed out at random.
- Choose two or three Station Rotations from those listed below. Designate an area in the garden for each station.
- To prepare for Life in a Square Foot, create a quadrat by cutting a 1-foot-by-1-foot square out of a piece of cardboard. Alternatively, glue, tape, or tie long sticks together to create a 1-foot-by-1-foot square.



ACTION STEPS

1. Garden Expectations: Gather students in a circle and say, *Today we'll get to explore the garden, which is our outdoor classroom. What are the expectations we can follow to make sure we can learn all we can and keep ourselves, the plants, and other living creatures safe?* Have students share expectations and collectively come to an understanding of how they should move about the garden. If this is your students' first time in the garden, refer to the Kindergarten Garden Exploration lesson for more details on how to establish group agreements for the garden. **(5 min.)**

2. Garden Bingo: Pass out a Fall Garden Bingo Worksheet to each student or pair of students. Explain that they'll explore the garden, crossing out squares when they discover them. Go over squares you anticipate students having questions about. For example, give a couple examples of pests, mammals, or root vegetables to set students up for success. Remind students how they can get a bingo (five horizontal, diagonal, or vertical squares in a row) and that they should call out bingo if they get it during exploration time. Whenever a student

wins, you can invite them to take a bow while the class applauds. Explain that you'll play a couple of rounds before returning together as a class, and be sure they know the strategy you'll use to get their attention, such as a call-and-response song or whistle. After a couple students get bingo, move on to playing all-star bingo, where they must try to find every object on the bingo board and star each one they find. **(10 min.)**

3. Explain Rotations: Gather students back together. Pick two or three of the following activities for students to rotate through. Nature Bracelets or Life in a Square Foot can work as self-directed stations, whereas they will need guidance for Meet a Plant or Human Camera, so if you don't have other adult support, set up stations accordingly. Explain each rotation to students and the signal for when they should switch and how. **(5 min.)**

4. Demonstrate Safe Tool Use (if including Life in a Square Foot):

a. Demonstrate for students how to use magnifying glasses, demonstrating how to hold it up close to your eye, and then move the object you want to look at toward you until it comes into focus. Explain that magnifying glasses are delicate tools and that you are trusting students to use them responsibly.

b. Demonstrate for students how to use trowels to dig into the soil and look for insects and other critters safely, with the point aiming down, to avoid flinging soil upward toward their faces. **(5 min.)**

5. Rotations: (30 min. total, 10 min. for each rotation)

a. Nature Bracelets: Pass out a piece of painter's tape to each student, and have a neighbor help them secure it around their wrist with the sticky side facing out. Then let students know that they can go around collecting flowers and leaves to affix to their bracelet. Be sure to establish whatever parameters you'd like them to follow such as, *Only pick a leaf or flower if there are more than ten still left on the plant.*

b. Life in a Square Foot: Give a group of students a quadrat, and have them choose a location in the garden to place it down. Then they can use magnifying glasses and trowels to observe and record all the plants, weeds, and living creatures they see. Be sure to establish whatever parameters you'd like them to follow such as, *Only place the quadrat in an area outside the cultivated garden beds.*

c. Meet a Plant or Human Camera: (These activities are similar, so choose either i. or ii.)

i. Meet a Plant: Explain that, in this activity, students will get a chance to explore the garden using senses other than sight. Encourage them to explore how else their brains can receive information about their surroundings. Split students into pairs, and have one partner close their eyes, while their guiding partner leads them to a tree or shrub. The partner keeps their eyes closed while they touch and smell the plant. The guiding partner can direct their hands to interesting parts of the plant to explore. Then the guiding partner leads them back to the starting place, and the partner must find the tree they met. *OR*

ii. Human Camera: In this activity, one

person in the pair becomes a "camera" by closing their eyes. The guiding partner, the "photographer," brings their partner, the "camera," to a beautiful plant or view in the garden. Once there, the photographer positions the human camera as they'd like, perhaps guiding their chin up or down and has them open their eyes, like a shutter, to take a mental snapshot of what they see. The human camera should quickly close their eyes again, and the photographer can have them take a couple more pictures in different spots before they switch roles. Then have students open their eyes and try to find the spots where they took pictures. (Joseph Cornell, author of *Sharing Nature with Children*, developed this activity)

6. Closing: Gather students back together in a circle. Practice using a gathering song or call-and-response that students will always sing when it's time to come together again as a class. Then discuss the reflection questions. **(5 min.)**

REFLECTION

Have students discuss the following questions in small groups, then share with the class: **(5 min.)**

Social and emotional learning

- *What are you looking forward to learning about in the garden?*
- *Ask yourself: Was I safe and respectful in the garden today?*

Check for understanding

- *What was the most interesting thing you discovered in the garden today?*

- Which senses did you use while exploring the garden today?
- How do you think this part of the garden will change over the season?

ADAPTATIONS

Preselecting a Spot for Life in a Square Foot:

If your garden is small, or you're unsure about letting students choose spots to dig up, you can instead preselect a location for Life in a Square Foot. In this case, turn the soil in an unplanted portion of a garden bed to unearth worms and other creatures. (If you have time to plan a few days in advance, you can cover this space with burlap or mulch.) Measure a square foot, and define the space with string and/or stakes before the lesson begins.

Journal Extension: Have students create garden journals in which they'll record all their observations, reflections, drawings, and measurements while in the garden. See Orientation Session in the *Sprouts Scouts Leaders Handbook* for more detailed instructions.

Language: Have students create plant tags and other signage in their home language and place the tags throughout the garden to identify various plants and garden features. You can use plant labels, popsicle sticks, or wooden signs painted with blackboard paint, which allow students to update the signs seasonally as you rotate your crops.

ACADEMIC CONNECTIONS

English Language Arts Common Core State Standards

CCSS.ELA-LITERACY.SL.4.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.

Next Generation Science Standards






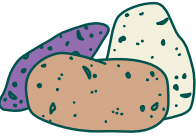




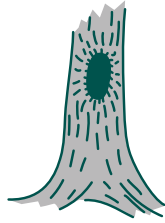


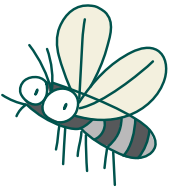
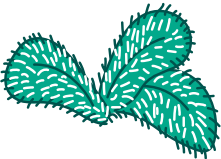


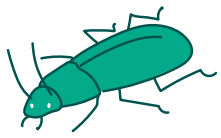


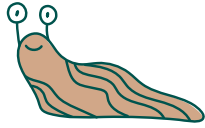

NGSS 4-LS1-2

Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.


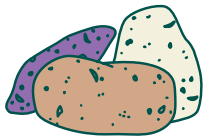


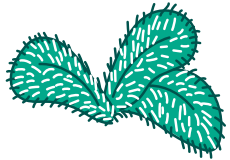


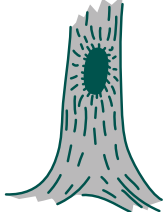
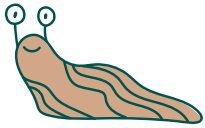
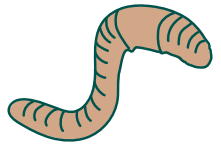



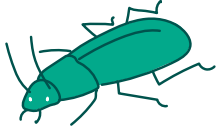

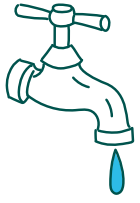


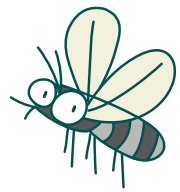




GETTING TO KNOW THE GARDEN BINGO

 <p>A home for an animal</p>	 <p>Garden pest</p>	 <p>Spider or spider web</p>	 <p>Leaf you like to eat</p>	 <p>Plant</p>
 <p>Flower pollen</p>	 <p>A plant with thorns or spines</p>	 <p>A flower with bright colors</p>	 <p>Evidence of a mammal</p>	 <p>A plant with fuzzy leaves</p>
 <p>Fruit</p>	 <p>A weed</p>	<p>FREE</p>	 <p>Roly-poly</p>	 <p>Something that sparkles in the sun</p>
 <p>Flower you can eat</p>	 <p>Decomposing plant</p>	 <p>Dead leaf a plant dropped</p>	 <p>Seed pod</p>	 <p>Worm</p>
 <p>Vegetable that grows underground</p>	 <p>An insect that flies</p>	 <p>Compost pile</p>	 <p>A bird</p>	 <p>Water spigot</p>

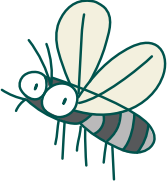
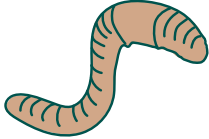
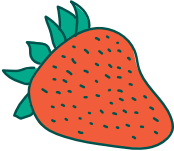



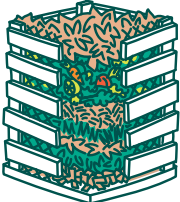




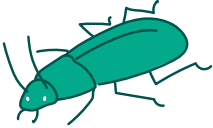




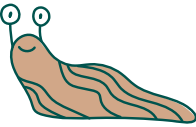



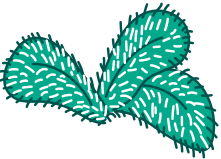
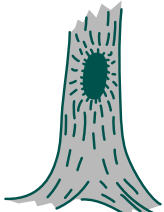
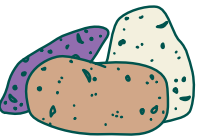

GETTING TO KNOW THE GARDEN BINGO

 Seed pod	 Roly-poly	 Decomposing plant	 A bird	 Flower pollen
 Vegetable that grows underground	 Water spigot	 Dead leaf a plant dropped	 Fruit	 Worm
 Plant	 A home for an animal	FREE	 Spider or spider web	 Flower you can eat
 An insect that flies	 A plant with fuzzy leaves	 Something that sparkles in the sun	 A flower with bright colors	 An insect that crawls
 A plant with thorns or spines	 Evidence of a mammal	 Garden pest	 Leaf you like to eat	 Compost pile




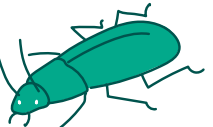
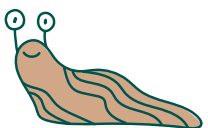




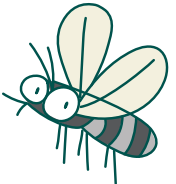
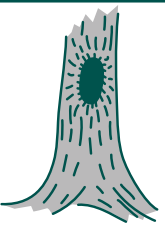


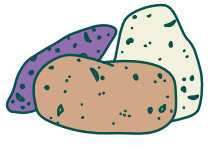

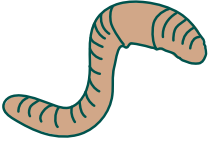







GETTING TO KNOW THE GARDEN BINGO

 <p>A weed</p>	 <p>Vegetable that grows underground</p>	 <p>Seed pod</p>	 <p>Plant</p>	 <p>A plant with fuzzy leaves</p>
 <p>Something that sparkles in the sun</p>	 <p>Dead leaf a plant dropped</p>	 <p>A home for an animal</p>	 <p>Garden pest</p>	 <p>Worm</p>
 <p>Leaf you like to eat</p>	 <p>Roly-poly</p>	<p>FREE</p>	 <p>Evidence of a mammal</p>	 <p>An insect that crawls</p>
 <p>Compost pile</p>	 <p>Water spigot</p>	 <p>Flower pollen</p>	 <p>A flower with bright colors</p>	 <p>An insect that flies</p>
 <p>Fruit</p>	 <p>Flower you can eat</p>	 <p>Spider or spider web</p>	 <p>Decomposing plant</p>	 <p>A bird</p>

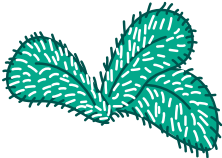

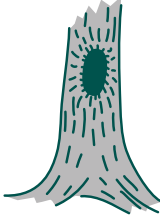
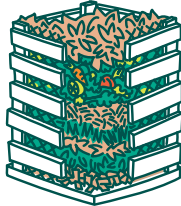







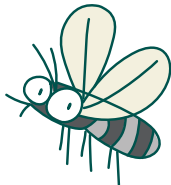

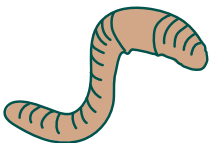



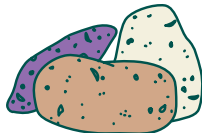

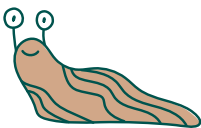

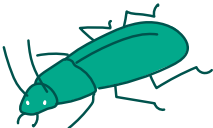


GETTING TO KNOW THE GARDEN BINGO

 <p>An insect that flies</p>	 <p>Worm</p>	 <p>Fruit</p>	 <p>Evidence of a mammal</p>	 <p>Roly-poly</p>
 <p>A bird</p>	 <p>Compost pile</p>	 <p>Flower pollen</p>	 <p>Water spigot</p>	 <p>A flower with bright colors</p>
 <p>Flower you can eat</p>	 <p>An insect that crawls</p>	<p>FREE</p>	 <p>Seed pod</p>	 <p>A plant with thorns or spines</p>
 <p>Leaf you like to eat</p>	 <p>A weed</p>	 <p>Garden pest</p>	 <p>Plant</p>	 <p>Dead leaf a plant dropped</p>
 <p>Decomposing plant</p>	 <p>A plant with fuzzy leaves</p>	 <p>A home for an animal</p>	 <p>Vegetable that grows underground</p>	 <p>Spider or spider web</p>


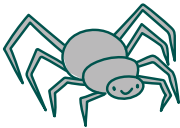

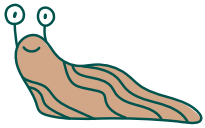



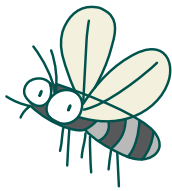
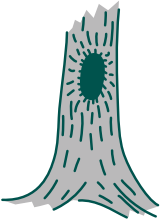
GETTING TO KNOW THE GARDEN BINGO

 <p>Evidence of a mammal</p>	 <p>Spider or spider web</p>	 <p>A flower with bright colors</p>	 <p>An insect that crawls</p>	 <p>Garden pest</p>
 <p>A plant with thorns or spines</p>	 <p>Fruit</p>	 <p>A bird</p>	 <p>Roly-poly</p>	 <p>An insect that flies</p>
 <p>A home for an animal</p>	 <p>A plant with fuzzy leaves</p>	<p>FREE</p>	 <p>Decomposing plant</p>	 <p>Vegetable that grows underground</p>
 <p>Waterspigit</p>	 <p>Worm</p>	 <p>Flower you can eat</p>	 <p>Flower pollen</p>	 <p>Leaf you like to eat</p>
 <p>Dead leaf a plant dropped</p>	 <p>Something that sparkles in the sun</p>	 <p>Seed pod</p>	 <p>A weed</p>	 <p>Plant</p>

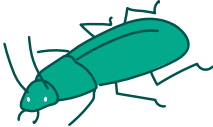
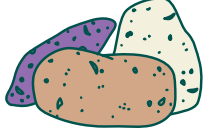
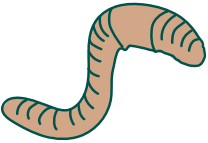





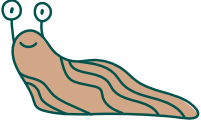

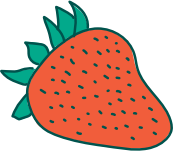








GETTING TO KNOW THE GARDEN BINGO

 <p>A plant with fuzzy leaves</p>	 <p>Flower you can eat</p>	 <p>A home for an animal</p>	 <p>Compost pile</p>	 <p>Dead leaf a plant dropped</p>
 <p>Water spigot</p>	 <p>A plant with thorns or spines</p>	 <p>A weed</p>	 <p>Leaf you like to eat</p>	 <p>Something that sparkles in the sun</p>
 <p>A flower with bright colors</p>	 <p>An insect that flies</p>	<p>FREE</p>	 <p>A bird</p>	 <p>Worm</p>
 <p>Spider or spider web</p>	 <p>Seed pod</p>	 <p>Roly-poly</p>	 <p>Vegetable that grows underground</p>	 <p>Plant</p>
 <p>Garden pest</p>	 <p>Evidence of a mammal</p>	 <p>An insect that crawls</p>	 <p>Fruit</p>	 <p>Decomposing plant</p>

GETTING TO KNOW THE GARDEN BINGO

 <p>Water spigot</p>	 <p>Vegetable that grows underground</p>	 <p>A flower with bright colors</p>	 <p>Evidence of a mammal</p>	 <p>An insect that crawls</p>
 <p>Worm</p>	 <p>Flower pollen</p>	 <p>Roly-poly</p>	 <p>A weed</p>	 <p>Spider or spider web</p>
 <p>A plant with thorns or spines</p>	 <p>Seed pod</p>	<p>FREE</p>	 <p>Garden pest</p>	 <p>Decomposing plant</p>
 <p>Dead leaf a plant dropped</p>	 <p>Something that sparkles in the sun</p>	 <p>Fruit</p>	 <p>A bird</p>	 <p>A plant with fuzzy leaves</p>
 <p>Leaf you like to eat</p>	 <p>Compost pile</p>	 <p>Plant</p>	 <p>An insect that flies</p>	 <p>A home for an animal</p>

GETTING TO KNOW THE GARDEN BINGO

 Decomposing plant	 An insect that crawls	 Vegetable that grows underground	 Worm	 Flower you can eat
 Evidence of a mammal	 Something that sparkles in the sun	 An insect that flies	 Dead leaf a plant dropped	 Compost pile
 Garden pest	 Plant	FREE	 Leaf you like to eat	 Fruit
 A flower with bright colors	 Flower pollen	 A weed	 Roly-poly	 Spider or spider web
 Seed pod	 A bird	 A plant with fuzzy leaves	 A plant with thorns or spines	 Water spigot

Life in Square Foot Worksheet

Directions: Draw everything big and small you see!

