



# LIVING OR NONLIVING?

## Garden

EST. TIME 45 minutes SEASON fall 

GRADE K | LESSON #5

### ? ESSENTIAL QUESTION(S)

- How can we tell the difference between living things and nonliving things in the garden?
- How can we tell the difference between plants and animals in the garden?
- How can we safely use trowels to plant transplants?
- How can we provide plants with everything they need?

### MATERIALS

- Handouts / Visual Aids
- Equipment
- Materials for Planting

### Abc VOCABULARY

- Living
- Nonliving
- Plants
- Animals
- Trowel
- Roots
- Stems
- Leaves
- Soil

### ASSESSMENT

- Observational checklist

### PREPARATION (15 MINUTES)

To prepare for this lesson, gather materials and ensure that there is space in the garden cleared for seedlings to be transplanted (1 per every 3 students).

### TEACHER BACKGROUND

While many students may be able to classify objects as living or non-living, categorizing items that were once-living as well as articulating the reasoning behind an object's classification can be challenging. In this lesson, students discover that living things eat food (or make their own food), breathe, move (or react to surroundings), grow, and produce young (seeds, eggs, babies). In contrast, non-living things do not eat, breathe, move (without being moved), grow, or make babies.

### LESSON DESCRIPTION

In this lesson, students will work on sorting and classifying the things they observe in the garden area, first by living and nonliving, and then sorting living things into animals and plants, each time developing qualifiers for each category. Students will then learn how to safely use hand trowels and practice by transplanting seedlings. Finally, students will discuss how they can provide their plants with everything they need (soil, water, sun, air).



Use the lesson template to create your own and share with us!

LEARNING OBJECTIVES

**Content Learning Objectives**

**GPM.K.1** Describe what lives in a garden and name what they need to live (sunlight, water, air, nutrients).

**GTE.K.1** Name, identify, and safely use new tools.

**GTE.K.2** Match new tools to tasks.

**GTE.K.3** State how to properly care for new tools.

**GTE.K.4** Describe the purpose of a new tool.

**Life Skills Learning Objectives**

**PLS.2** Students are able to express empathy and caring for themselves, others, and the environment.

ACADEMIC STANDARD CONNECTIONS

**CCSS.ELA-Literacy.SL.K.1** Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

**NGSS.K.LS1.C Organization for Matter and Energy Flow in Organisms**

All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.



## LESSON MATERIALS

### Materials for Lesson Introduction

#### Visual Aids

- Chart from **Lesson #1: Welcome to the Garden** (if available)

### Equipment

- Chart Paper, Easel, Markers
- Hand Trowels (1 per every 3 students)
- Journals (1 per student)
- Clipboards (1 per student)
- Pencils, Colored Pencils, Handheld Sharpeners (enough for all students)

### Materials for Planting

- Seedlings (1 per every 3 students)



See “Teaching Strategies” in Appendix section for information on how to lead Think-Pair-Share.

CULTIVATE CURIOSITY (5 MINUTES) *engage*

1. Lead students to a comfortable sitting position in a central gathering area in the outdoor classroom space (in a circle, if possible).
2. Welcome students to the garden and provide them with a few minutes to silently observe from their seated position (using only their eyes and ears), what has stayed the same and what has changed since their last visit. After a few moments, discuss together.
3. Present the chart poster that was created in the first **Garden Lesson #1: Welcome to the Garden** lesson (if available). Ask students to think-pair-share and identify things from the list that are living and nonliving and request that they explain their reasoning for each. Through the discussion, guide student understanding of qualifications of **living** and **nonliving** things.

LIVING (OR ONCE-LIVING)	NON-LIVING
<ul style="list-style-type: none"> <li>• Eats or makes its own food</li> <li>• Breathes</li> <li>• Moves (or has moving parts)</li> <li>• Reacts to surroundings</li> <li>• Grows and develops</li> <li>• Produces young, seeds, or eggs</li> </ul>	<ul style="list-style-type: none"> <li>• Doesn't need to eat</li> <li>• Doesn't breathe</li> <li>• Doesn't move without being moved</li> <li>• Doesn't react to surroundings</li> <li>• Doesn't grow</li> <li>• Doesn't make babies</li> </ul>



See “Teaching Strategies” in Appendix section for information on transitioning between whole and small groups effectively.

ROOT AROUND (10 MINUTES) *explore*

1. Explain to students that they will have time to explore the garden with their classmates to find 5 new living things and 5 new nonliving things using the qualifications they came up with as a class. Remind students of their boundaries and their callback signal to let them know to return to the whole group gathering space. Use a phrase such as “when I say go, and not before I say go” to cue students to transition from whole group listening to small group work.
2. As students explore the garden area, acknowledge observed behaviors and reinforce understandings of qualifications of living and nonliving things through discussion with small groups.
3. Provide the call back signal for each student to return to the whole group gathering space.

GROW UNDERSTANDING (5 MINUTES) *explain*

1. In the whole group, discuss some of the living and nonliving things students found in the garden. Ask students to explain their reasoning and reinforce the language around the qualities of living and nonliving things through the discussion.
2. Look more closely at the list of living things with students and work together to further divide that list into **plants** and **animals**. Guide students into a similar conversation about what qualities differentiate plants from animals.
3. Explain to students that throughout the year we are going to do our best to create an environment where both plants and animals can live and grow.

OBSERVE THE FRUITS (15 MINUTES) *elaborate*

1. Explain to students that they are going to learn how to carefully plant new baby plants in their garden and then work together to determine how to provide them with everything they need to live and grow.
2. With all students' attention, identify a hand **trowel** by name and ask students to repeat the name aloud. Then, state the purpose of the tool and describe a situation when it would be used, such as the task for today.
3. Demonstrate how students will retrieve their hand trowel from their storage place and how they will carefully travel through the garden space to their work area with the hand trowel.
4. Divide students into teams of 3, instructing a student in each group to choose from a selection of places for their team to plant their baby plant, a student to retrieve the hand trowel as demonstrated, and a student to meet the teacher to receive their baby plant and carefully carry it to their group's work area. When all students are at their work area with all of their tools, request that they put their eyes on the teacher for their next instructions. Use a phrase such as "when I say go, and not before I say go" to cue students to transition from whole group listening to small group work.
5. When all students are in the work area with their tools and plants, demonstrate how they will use the hand trowel to dig a hole the approximate size of the **roots** of the plant, how to carefully place the baby plant in the hole and loosely pack the **soil** around the roots so the **stem** stands up tall with its **leaves** reaching up into the air to the sun. Instruct students to show you they are finished with this task by placing their hand trowel on the ground outside of the bed and putting their eyes on you. Cue students to transition from whole group listening to small group work.

6. As students work together to plant their seedling, acknowledge observed behaviors that align with the Life Skills Learning Objectives, such as showing care for the environment. Also, use the observational checklist to assess students current development of the life skills.
7. When all groups have finished planting their baby plant, acknowledge their careful use of tools and their gentle care of their plant before demonstrating how to clean their tool and return it to the storage area. Select a student in each group (perhaps the student who was the “site selector” previously) to complete this task and request the other members return to the whole group gathering area to collect their journals and coloring supplies. Cue students to transition from whole group listening to complete their tasks.

REFLECT (5 MINUTES) *evaluate*

1. Read to students the following prompt to complete in their journal:

**Prompt:**

Draw a picture of your plant and where you planted it in the garden. Include yourself in your picture, with the tool you used today and any other tools you think you may need to take care of your plant.

2. Recognize students’ behaviors that aligned with being the best for themselves, their communities, and their environment. Specifically, ask students to reflect on how they showed care for the environment.

 ADAPTING FOR INDOORS

In the case of inclement weather, the Cultivate Curiosity, Root Around, and Grow Understanding sections of this lesson can occur inside the classroom—perhaps with images of the garden or a view of the garden out of a window. The Observe the Fruits section should take place in the garden area on the next garden day that the weather allows.

## CONNECTIONS TO KITCHEN LESSONS

In the kitchen, before you eat a dish featuring fruits or vegetables, celebrate the sun, soil, water, air, and nutrients that made those fruits and vegetables grow.

POSSIBLE EXTENSIONS

**Community:** Draw a picture of your home or neighborhood and circle 5 living and 5 nonliving things.

**Cafeteria:** Look at a school lunch and identify which foods came from plants and which came from animals.

ADDITIONAL RESOURCES

- *Is It Living or Non-Living* by Rebecca Rissman
- *What's Alive?* By Kathleen Weidner Zoehfeld
- *Is it Alive?* By Marcia Freeman
- *Living and Non-Living* by Angela Royston Living
- *Living and Non-Living* by Carol K. Linden