



Kindergarten



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Celebrating People, Planet & Possibility

Kindergarten gardening is a basic introduction to everything garden-related. The goal for this curriculum is that students will finish the year with a general understanding of the rhythms, cycles, and interactions within a garden. This year provides an important foundation for lessons and discoveries to come.

At the end of the year, students will be able to articulate the general cycle of the seasons, and the associated changes in nature. They will be able to discuss the nutrient cycle, and the basic life cycle. Students will be versed in the importance of composting and recycling, and will know how to identify common garden plants and animals. Continually encourage students to touch, feel, smell and ask. This sensory input will guide them through their thinking. Find the activities that you and your students love, and keep coming back to them.

The Numi Foundation is deeply grateful to the writers of open-source materials for their contributions and inspiration to this curriculum.

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Welcome to the Garden

STANDARDS

K.SL.6

OBJECTIVES

- Students are introduced to the garden
- Students learn about what takes place in a garden
- Students create their rules for the year

MATERIALS

- Large poster board
- Markers

Preparation:

The kids are going to develop their own agreements for how to use the garden. While the students should establish their class agreements of how to respect the garden and each other, there are some safety rules that you need to decide on beforehand and explain. (For example, always walk, always ask permission to use tools, always ask before harvesting). Also decide if you want to allow students to touch bugs or not, and be prepared to stand by your decision. Think about what rules you want to establish and be ready to explain and practice them.

Background Information:

It is important to establish that the garden is a special place, and emphasize that it is a classroom even though it is outside. Procedures for staying safe in the garden must be established on day one!

Procedure:

- Students come into the garden for the first time, and sit in a circle.
- Students are asked to describe what they see.
- “What is a garden? What happens in a garden? Who and what lives in a garden? How can we take care of the garden?”
- “What rules can we agree on to make sure we take care of the garden and each other?” List student responses on the poster board.
- Students sign the poster board (Review these garden rules before entering the garden in following weeks).
- Students explore the garden, practicing the rules they just learned.

Wrap up:

Teacher shows students where to line up at the end of class.

Notes/Feedback:



Garden Journals

MATERIALS

- Journals, pencils

Preparation:

Review garden rules before going outside.

Think about the procedures you would like to establish around journal-writing.

Procedure:

- Students enter and explore.
- Gather students. Distribute journals, “These are your garden journals. We will be using them to draw, and to write. Take good care of them. Now take 2 minutes to find something you want to draw.”
- Discuss procedures around journaling—where students can sit, what they can do when they are done, and so forth.
- Students should find something beautiful and draw it.
- Share and discuss drawings.

Wrap up:

Return journals.

Notes/Feedback:



Garden Names

STANDARDS

K.SL.6, K.W.8, K.L.5.a

OBJECTIVES

- Review and practice garden rules
- Students are oriented to different places in the garden
- Learn the names of garden tools and objects

MATERIALS

- Class agreements poster from Lesson 1
- Garden tools: watering can, shovels, trowels, gloves, etc

Preparation:

Gather your garden tools and have them ready in your classroom circle.

Background Information:

Students practice their rules, and learn the names of garden locations and tools. They also begin to develop a routine their classroom rituals.

Procedure:

- Students sit in opening circle
- Students and teacher review rules from the class agreements, and after each one, students get up and practice

- Organize the students in a line, and walk them through the garden. Name each place in the garden, and have them repeat it. (e.g. Bed 1, Bed 6, the Nursery, the Apple Tree)
- Students return to their circle. Tell the students to go explore the garden, and when students hear the gathering signal, the Teacher will tell them where to meet: “We are going to practice exploring the garden safely, and then gathering as a class. When you hear me clap like this (demonstrate), you repeat my clap. (Practice). When we do this, your eyes and ears are on me. I will tell you where to meet, for example, at bed 1 or at the tree. Let’s practice”. Repeat, until students move through this ritual easily. The last time, have them meet you in your opening circle.
- “We learned the names of the different places in the garden, now we are going to learn the names of all the tools and objects in the garden.” Teacher names tool, and students repeat. Teacher can choose to pass the tools around, and teach how to properly hold them.
- “We have more parts of the garden to learn, we are going to walk in a line and learn their names, too” Students line up behind teacher, who walks the students through the garden. Again, repeat after the teacher. (e.g. Soil, garden bed, hose, worm box, etc)
- Check for understanding: Students return to circle. Teacher tells students to touch the soil, and then does gathering signal. Repeat with different prompts (e.g. garden bed, watering can, etc).

Wrap up:

Return all materials.

Notes/Feedback:



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Naming and Drawing

STANDARDS

K.W.3

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students have extended explore time. Have them practice meeting you at different places in the garden. Push them to use the correct names for places in the garden, and to describe what they are seeing.
- In their journals, students draw themselves using a tool.

Wrap up:

Return journals.

Notes/Feedback:



Color Matching Game

STANDARDS

K.SL.6, K.L.5.c, K.SL.1

OBJECTIVES

- Learn about seasons
- Discover colors in the garden

MATERIALS

- Planting a Rainbow by Lois Ehlert
- Paint chips or colored construction paper, cut into squares

Preparation:

Gather your paint chips from a hardware store, or a store that sells paint. Cut the strips into squares. Alternatively, you can cut out squares from different colored construction paper.

Background Information:

This lesson introduces that the season is fall, and the assumption is that students are learning about the seasons inside their classroom as well.

Procedure:

- Students sit in opening circle.
- “Every day that we come into the garden, we will begin by exploring. When I gather you, we will sit in this circle. I will ask you what the season is, what the weather feels like, and then we will recite a poem. It will sound like this: “The season is fall, and

the weather is feeling _____ today.” Now, we will learn this poem, and recite it every gardening class until it is no longer fall.”

- Teach the poem. This can be done as “repeat after me” until the students know the poem as well.

Here is a tree with its leaves so green
(stretch arms out)
Here are the apples that hang between
(clench fists)
When the wind blows, the apples will fall
(drop arms)
Here is a basket to gather them all.
(interlock fingers)

- “Today we are going to look for the different colors in the garden. Let me tell you a story.”
- Read “Planting a Rainbow”. It is fun to have students name the colors with you. Also, this book mentions several garden tools and materials. See if they can name them.
- Tell the students this story, adding or changing details as you see fit: “A long time ago, when I was very little, I was on a walk through this neighborhood, not far from here. It was raining, hard at first, and then gently. When the clouds pulled apart, the sun came out and in the distance, I saw a beautiful rainbow. It was the most beautiful rainbow I had ever seen, and it seemed so close. I began to run towards it, faster and faster, I really wanted to touch it. No one had told me that you’re not supposed to touch rainbows. I got so close to it I could barely see and reached out my hand and.....the rainbow exploded into millions of pieces! I caught some of the pieces in my pocket (pull out paint chips). The pieces that I didn’t catch landed in the garden, making it beautiful and bright. Can we find all the colors in our garden?”
- Hand each student a color and ask them to match it to something in the garden (living or nonliving, as long as it’s not someone’s clothes). For more common colors, like green, you can challenge students to find multiple things that are green. When they have found their color, have them trade.
- Gather students, and as a whole class find one plant or object of each color.

Wrap up:

Have students return paint chips to you.



Taking Turns

STANDARDS

K.W.8

MATERIALS

- Garden tools

Preparation:

Gather different garden tools and objects in the opening circle.

Procedure:

- Students enter the garden and explore.
- In opening circle, hold up different tools and objects and ask students to name them.
- Have kids role play a scenario in which two students want to use the watering can at the same time. Be as explicit as possible, coaching students to say things like “May I use that when you’re done?”.
- Do multiple scenarios. (For example: There is a ladybug in the garden and 5 students are trying to see it at the same time, There is an ant crawling on your arm, what do you do? There is a bee flying nearby, what do you do with your body?)
- In their journals, students find a plant with 3 colors on it, and draw it.

Wrap up:

Return journals.



Tree Anatomy

STANDARDS

K.W.3, K.ESS3.1, K.SL.1, K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students can identify the parts of the tree
- Students can describe a tree's colors
- Students learn to draw a tree

MATERIALS

- Season Drawing printed template
- Clipboards, one per student
- Pencils, crayons

Background Information:

Deciduous trees are those originally from colder climates, and lose their leaves in the fall and winter. Coniferous trees have leaves year-round.

Preparation:

Before this activity, find a deciduous tree, preferably in your garden. Ideally its leaves are changing color, and it's a fruit tree. Choose carefully, because students will draw this tree as it changes through the seasons, and visit it frequently to notice and discuss its changes.

Then, make a drawing sheet similar to the one that follows, and make enough copies for students in your class.

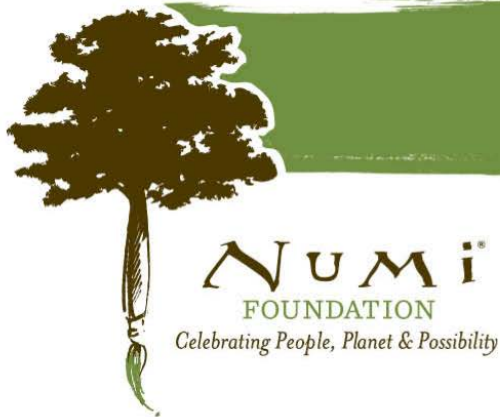
| | |
|--------|--------|
| Fall | Winter |
| Spring | Summer |

Procedure:

- Students enter garden and explore
- Gather students in opening circle. Check in about the season and weather.
- Recite the fall poem.
- Meet students at the tree that you have chosen. Learn its name. Have students point to the roots, trunk, branches, leaves. Let them observe its colors, and the state of the leaves. Tell them to remember these colors, because they are about to draw.
- Explain “Right now the season is fall. Trees change throughout the seasons, and right now we are observing one big change, that the leaves on many trees are changing color and falling off. We are looking at the _(name of tree)_, and we are going to draw it all year long.”
- Return to gathering place, and distribute materials: One clipboard, sheet, pencil per student.
- Have students identify the box that says fall. Have them follow you, as you draw on your whiteboard. First, draw a line across the bottom of the rectangle “This represents the soil. What part of the tree is underground? (Roots!)” You draw roots, and let the students copy on their sheets. “What part of the tree comes up from the roots? (Trunk!)”, and so forth. When students have finished, distribute crayons to color their work. They can color the sky depending on the weather, or draw worms underground.

Wrap up:

Gather drawings to use again later.



Self Portrait: Hot and Cold Weather

STANDARDS

K.W.3, K.ESS3.1, K.SL.1, K.ESS2.1, K.ESS2.2

MATERIALS

- Students' tree drawings
- Clipboards, one per student
- Pencils, crayons
- Journals

Procedure:

- Enter and explore.
- Students can finish their fall tree drawing if they haven't already.
- Journal prompt: It is fall and leaves are changing colors and falling. The falling leaves keep the tree warm in the winter. Draw a picture of yourself and the clothes you wear in the summer, and a picture of yourself wearing the clothes you wear in the fall.

Wrap up:

Return journals.



Planting Bulbs

STANDARDS

K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students learn what plants need to grow
- Students learn that plants have weather preferences
- Students plant bulbs

MATERIALS

- Bulbs, enough for each child to plant
- Craft sticks to mark where bulbs are to be planted
- “Planting the Rainbow”, if you read it to the students two weeks ago
- Hand trowels, and watering cans
- A ruler
- Optional: Oakland planting calendar

Preparation:

Find a place for students to plant. Mark each spot with a craft stick, at least one foot apart. Have the hand trowels ready, and watering cans filled.

There are many planting calendars available online, should you choose to print one and have one on hand. This is very helpful to have when students start asking questions about when they can grow different fruits and vegetables. Planting calendars are very specific to region, to be sure to find one for Oakland.

Procedure:

- Students enter garden and explore.
- Gather students in classroom circle.
- Check in about the season and weather, recite the fall poem.
- “We have spent the last several weeks learning about how to take care of the living things in the garden, and how to respect the space. Today we are going to plant! But first, we are going to learn about what plants need to grow.”
- Ask students what they need to grow. (Food, water, sun)
- “Plants are the same! They also need food to grow. They get their food from two places, from the sun and from the soil. And just like us, they need water to drink. Plants need soil, sun, water, and air to grow.”
- Ask students if they prefer hot weather in the summer, or cool weather in the winter.
- “Just like us, plants also prefer different weathers. But when we are cold, we can wear a sweater. Plants can’t change their clothes, so it’s important to know what season they prefer before you plant. For example, tomatoes love to grow in the hot summer, and will not grow in the cold winter, even if they have enough soil, sun, water and air.”
- “Today we are going to plant bulbs. Bulbs are not seeds. (Show picture of the bulbs being planted in “Planting the Rainbow”). Bulbs love to be planted in the cool fall, they rest all winter, and they start to grow in the spring.”
- It is helpful to draw this on the whiteboard as you talk: “Bulbs sleep all fall, and all winter. They grow little roots to drink. They know spring is coming because the soil warms up, and they start to send up leaves, and eventually a flower!”
- Before you gather students at the planting place, you can review the proper way to use a hand trowel, and a watering can. You can have them practice taking turns as well.
- Gather at the planting place, and have students find a craft stick. Have students dig a hole about 6 inches deep-the ruler is useful here. Allow them to explore their bulbs, then show them how to gently lower their bulbs, pointy side up, into the hole. Cover with soil, gently, and water thoroughly.
- Ask, “Do the bulbs have everything they need to wait until spring? Do they have soil? Do they have air? (There is air in the soil, to be sure not to pat the soil down) Are they in a place that gets sunlight? Can we be sure to water them when it’s not raining?” Be sure students see that they planted the bulbs so that get everything they need.

Assessment:

Observe how students move through the garden safely, use tools properly, and gather when called. Depending on their progress, you may want to take the time to review garden procedures in the following lesson.

Wrap up:

Have students return tools to where they belong.



Watering and Coloring

STANDARDS

K.SL.1

MATERIALS

- Journals, pencils, crayons
- Watering cans

Procedure:

- Students enter and explore.
- Have students look for signs of fall: leaves changing colors, fall-colored leaves, acorns.
- Water the bulbs, if the soil is dry.
- In their journals, students can draw a plant in the garden (or in nature) getting everything it needs to grow.

Wrap up:

Share in partners.



The Five Senses: Sight

STANDARDS

K.SL.6, K.L.5.a, K.L.5.c, K.ESS2.1

OBJECTIVES

- Students describe objects in the garden
- Students can call objects by name

MATERIALS

- Garden tools

Preparation:

Gather garden tools, and have them ready in the classroom.

Procedure:

- Students enter garden and explore.
- Students gather in opening circle, check in about season and weather and recite fall poem.
- “Today we are going to learn about the Five Senses. Has anyone heard of the five senses before?”
- “The Five Senses are five different ways we can explore the world. One way we explore the world is through our eyes. What do we do with our eyes? (We see!). Another way we can explore is with our nose. What do we do with our nose? (We smell!)” Continue with all five senses. You can have students point to their eyes, or nose as you describe each sense.
- “Today we are going to focus only on our eyes. We are going to use our eyes to see everything we can in the garden. First, I am going to show you some garden tools. Raise your hand and name them, please”. Practice naming garden tools.

- “Now we are going to go into the garden and look at parts of our garden with our eyes. You and a partner will try to describe different things you see.” You may want to give an example, such as “This is a sunflower. I can see that it is tall, and has green leaves. I see it has yellow petals. I see that the flower is large. I can see the stem looks fuzzy. I see an ant crawling on it.” Be clear with the students that they are going to describe everything they see, without touching.
- Put students in pairs. Line them up with their partner, and begin to walk through the garden. Every time you stop, have them turn to their partner and take turns explaining to each other everything they see. Be diligent about not letting them touch anything during this activity. Push students to come up with as many describing words as possible.

Wrap up:

Have students look for different colors in the garden. You can guide them, or not.

Notes/Feedback:



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Journaling Prompt: Seeing

STANDARDS

K.SL.1

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- Encourage students to use just their eyes this week.
- Have students find something in the garden that is beautiful. It can be anything they want. Have them look at it for one whole minute before letting them draw it in their journal.

Wrap up:

Share, in partners.

Notes/Feedback:



Five Senses: Smell

STANDARDS

K.SL.6, K.L.5.c, K.W.8, K.ESS2.1

OBJECTIVES

- Students explore the garden through their sense of smell
- Students can describe different smells

Preparation:

Find the flowers and herbs in your garden that are good to smell.

Background Information:

Most herbs release their smell through their oils, which you can smell by crushing the leaves. To do this, rub an herb's leaves with your thumb and forefinger, and then smell your fingers.

Smell is the sense that connects us to memories most profoundly. Take your time with this lesson, perhaps what your students smell this week will be locked in their memories for years to come!

Procedure:

- Students enter garden, and explore.
- Gather students in opening circle.

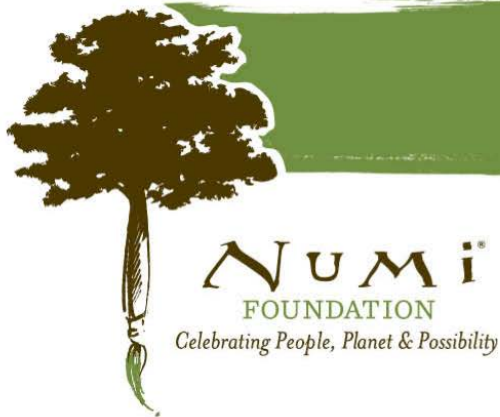
- Check in about the season, and weather. Recite the fall poem.
- "Does anyone remember what we talked about last week? Can anyone name all five senses?"

- “Last week we used our eyes to explore. Today we are going to use our noses to explore!”
- Allow students to explore the garden on their own. Encourage them to smell flowers, trees, and especially the soil. Ask them to try to describe what they are smelling. Again, be diligent about not letting them describe things by sight or by touch.
- Bring students to the herbs and tell them “These are special plants called herbs. They are using in cooking to make food taste good. Some common herbs are mint, oregano, thyme and rosemary. People use herbs around the world. These are the herbs that we have in our garden. Herbs have oil in them, and sometimes don’t smell strong when we just smell with our noses.” Teach them to rub the herbs with their fingers, and then smell their fingers.
- Continue to allow students to explore, using this technique.
- If time permits, bring students out of the garden and onto campus to continue exploring by smell.

Wrap up:

Have students find and stand by their favorite smelling plant in the garden. Teach them the name of their favorite smelling plant.

Notes/Feedback:



Journaling Prompt: Smell

STANDARDS

K.SL.1

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter garden and explore, again, encouraging them to smell.
- In their journals, have students draw their favorite smelling plant in the garden.
When they have finished, have them draw their favorite smell in the world!

Wrap up:

Share, in partners.

Notes/Feedback:



Five Senses: Touch

STANDARDS

K.SL.6, K.L.5.c, K.W.8, K.ESS2.1

OBJECTIVES

- Students explore the garden through touch
- Students can describe what they are touching

MATERIALS

- One half of an egg carton per student

Preparation:

Find a place where students can sink their hands deep into the soil to feel its temperature.

Also, collect egg cartons, and cut them in half so they are two rows of three (not one row of six). If you don't have access to enough egg cartons, you can do this activity using a piece of paper and tape. Instead of placing their findings in an egg carton, students will tape their findings onto a piece of paper.

Procedure:

- Students enter the garden and explore.
- Gather students in the opening circle.
- Check in about season and weather. Recite the fall poem.
- "We have been talking about the five senses. Can anyone name all of them for me?"
- "We have explored by sight, and by smell, today we are going to explore with our hands, using touch."
- Have students practice how they would touch a plant, or an insect (if they are allowed to touch insects). Show them how to feel without grabbing, or harming. Show them how to hold soil without throwing or dropping.

- Allow them to explore the garden by touching everything. Encourage them to describe what they are feeling.
- Gather students and tell them they are going to be looking for plants in the garden that are soft, and plants that are rough. Distribute the egg cartons, and say “Every time you find a plant that is soft, I want you to gently tear a piece of it and put in the egg carton. You should find three things that are soft. Every time you find a plant that is rough or poky, I want you to tear a tiny piece off and put it in your carton as well. You should find three plants that are rough.”
- Demonstrate how to tear plants, and then let them do the activity.
- Gather students, and do show and tell.
- Bring students to a place in the garden where they can sink their hands. “A few weeks ago, we talked about how different plants like different seasons. Some plants can be planted in the fall, but those plants like cold soil. As gardeners, our hands are very important tools, and they help us feel the soil temperature.” Allow students to sink their hands deep into the soil, and ask them to describe what they feel. “Is it cool? Is it wet? If so, how did it get wet? If you were a seed that loved warm soil, would you be happy here?”

Wrap up:

Have students wash their hands.

Notes/Feedback:



Journaling Prompt: Touch

STANDARDS

K.W.8

MATERIALS

- Journals, pencils, crayons

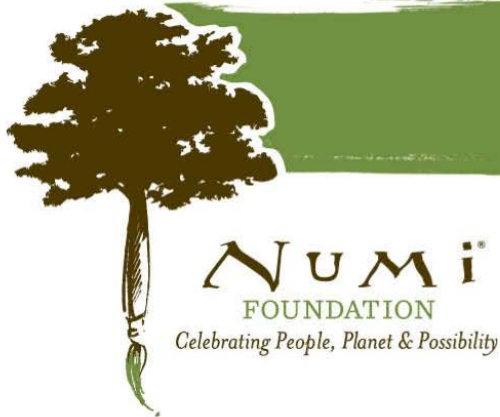
Procedure:

- Students enter the garden and explore.
- Encourage students to continue their exploration of touch. They can do a modified soil temperature test using just one finger. Test temperatures of soil in different places in the garden.
- In their journal, have students draw at least five activities that they do with their hands.

Wrap up:

Wash hands, return journals.

Notes/Feedback:



Five Senses: Hearing

STANDARDS

K.SL.6, K.L5.c, K.W.8, K.ESS2.1

OBJECTIVES

- Students explore through their sense of hearing
- Students learn songs

MATERIALS

- Song sheets

Preparation:

Find at least two songs to teach the students. Two examples are provided below.

Procedure:

- Students enter the garden and explore.
- Gather students in the opening circle.
- Check in about season and weather. Recite the fall poem.
- “We have been talking about the five senses. We have explored the garden through our (point to eyes (sight!), point to nose (smell!), point to hand (touch!). Today we

are going to explore with our ears. We are going to listen, and try to hear everything in our garden. And then we are going to learn some songs.

- Have students close their eyes and sit silently for 30 seconds. Afterwards, have them raise their hands to say what they heard. It could be anything from a person walking by, to a car, or a bird. If there is a breeze, ask if they can hear the breeze blowing in the leaves. Ask what animals they can hear in the garden. Ask them which animals live in the garden, who we almost never hear.
- Teach students to have “deer ears”. Cup your hands and place them behind your ears. You can tilt your ears in different directions to hear better around you. “Animals do this naturally. They can stand still and move their ears to help sense what is going on around them. Why do you think an animal like a deer or a rabbit needs to always be listening to what’s around it?”
- Have students explore the garden with their deer ears. If a bird enters the garden, have students stop and point their ears towards the bird.
- Gather students. “Not only are we going to listen to what’s happening in our garden, we are going to learn songs and listen to our beautiful voices!”
- Teach students the songs you have chosen. Encourage students to close their eyes and enjoy the sound.

Notes/Feedback:



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Song Examples

I Am a Tree

I am a tree, I am a tall, tall tree.
When the winter comes, rain falls on me.
I glisten, I glisten.

I am a tree, I am a tall, tall tree.
When the spring comes, blossoms bloom on me.
I bloom, I bloom.

I am a tree, I am a tall, tall tree.
When the summer comes, the breeze blows through me.
I bend, I bend.

I am a tree, I am a tall, tall tree.
When the fall comes, apples fall off me.
They fall, they fall.

A Little Seed

A little seed, for me to sow.
A little soil, to help it grow.
A little sun, a little shower,
A little wait (pause),
And then a flower!



Exploring Sounds

STANDARDS

K.L5.c

MATERIALS

- Watering can

Procedure:

- Students enter garden and explore. Have them focus on what they can hear.
- Sing your songs with your students.
- Water the bulbs, if the soil is dry.
- Have students try to find objects in the garden that can make music. For example, a stick beating against a bucket. Or a seed pod that rattles.

Notes/Feedback:



Five Senses: Taste

STANDARDS

K.SL.6, K.L.5.c, K.W.8, K.ESS.2.1, K.SL.5

OBJECTIVES

- Students enjoy a harvest celebration!
- Students can describe different tastes, and can politely say when they don't like something

MATERIALS

- Cutting board and knife (if preparing food from the garden)
- Fall fruit (if buying food from the store)
- Soap, to wash hands before eating.

Preparation:

Find at least two or three plants in the garden that are ready to harvest. If there are none, or none available to you, see if you can buy fall fruit to sample, like apples, pears and grapes.

Procedure:

- Students enter the garden and explore.
- Gather students in the opening circle.
- Check in about season and weather. Recite the fall poem.
- “We have been talking about the five senses. There is only one left that we have not explored. Does anyone know what it is? What are some words we can use to describe how foods taste?”

- “This is our last lesson of the fall, and we are going to taste some fall fruits (or vegetables). These are plants that are ready to harvest now. Traditionally, many foods are ready to harvest in the fall. Different people from all over the world have celebrations this time of year. They celebrate the foods of the fall, they thank Mother Nature for providing us with everything we need, and they are grateful to rest after working long and hard all spring and summer long. Can anyone think of the festival we celebrate here in the United States, where we give thanks?”
- “We are going to celebrate the fall and use our sense of taste today.” If harvesting from the garden, you can have students watch you harvest, or you can harvest all together. Wash and cut the produce, wash hands, and let them taste the different foods.
- Teach students that if they don’t like something, they can say “It’s not for me” or “It’s not my favorite”, instead of saying it is gross or disgusting. Always thank them for trying something new. Uneaten food can go into the compost.
- During your tasting, encourage students to describe what they taste, beyond just liking it or not liking it.

Wrap up:

What was your favorite taste today?

Notes/Feedback:



Gratitude

STANDARDS

K.SL.6

MATERIALS

- Journals, pencils, crayons

Procedure:

- Enter the garden and explore.
- See if students can find plants that are ready to harvest.
- Have students find a part of the garden they are grateful for. It could be the soil that grows the food, or the tree that gives shade, or the flower that makes the garden beautiful. Have them draw it in their journals.
- If they finish early, let them draw other things they are thankful for.

Assessment:

As students are working: check in with each student one by one and ask them to name the five senses.

Wrap up:

Gather students. Each student names one thing they are thankful for.

Notes/Feedback:



Winter

STANDARDS

K.W.8, K.SL.6, K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students know that the season has changed to winter
- Students can describe the weather patterns of the winter
- Students know that some animals move to warmer places for the winter

MATERIALS

- “Animals in Winter” by Henrietta Bancroft & Richard G. Van Gelder (or something similar)
- Tools, if necessary, for garden work.

Preparation:

Prepare garden work for students to complete.

Background Information:

This is a good opportunity to make the distinction between season and weather; there can be cold days in the summer, and warm days in the winter.

Procedure:

- Students enter the garden and explore.
- Gather students, and check in about the season and weather. The season has changed to winter. Discuss the weather changes that they may have noticed. Has it

rained yet? Is it dark or light outside when they eat dinner? Discuss typical weather patterns in Oakland.

- Teach students their winter poem (which can be recited, or sung to the tune of Frère Jacques)

Winter's Coming

Winter's coming, Winter's coming.

It is dark, it is cold.

I am bundled, snug and warm.

Animals sleep safe from harm.

Sleds and snow.

Cold winds blow.

- Read the story you have chosen. Discuss what different animals do as the weather changes. Ask students what they do when the weather changes.
- Students explore the garden to find evidence of the change in seasons. Can they find trees without leaves? Are there many bees and butterflies about?
- Have students feel the soil, and have them describe the temperature. Ask, "If you were a seed, would you feel comfortable in the cold soil?"
- Gather students to do garden work. Explain, "As gardeners, our jobs change with the seasons. In the fall and spring we can plant. In the winter, the soil is too cold for most plants. In the winter, our job is to keep plants warm (which we will do in the coming weeks), water them when it is not raining, and to pull weeds". Explain the garden job you have prepared.

Wrap up:

Have students wash hands, and return tools.

Notes/Feedback:



Journaling Prompt: Winter

STANDARDS

K.W.3

MATERIALS

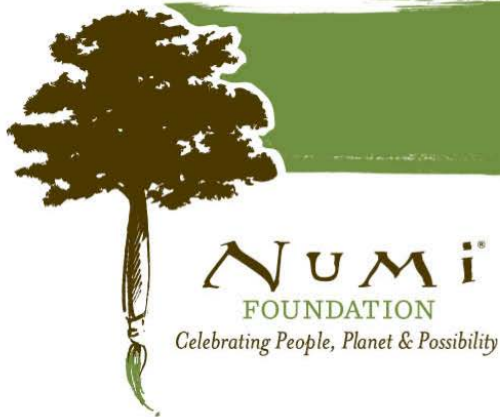
- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- See if students can find animals and insects in the garden.
- Have their bulbs sprouted? Are plants growing quickly or slowly?
- In their journals: "In the winter, many animals travel to warmer places. Draw a picture of a butterfly traveling to a warmer place. Where is she going? Draw her adventures along the way."
- If students finish, have them draw themselves in winter clothes staying warm.

Wrap up:

Share drawings in partners.



Winter Tree

STANDARDS

K.W.3, K.ESS3.1, K.SL.1, K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students learn and draw the parts of the tree
- Students learn that trees change through the seasons

MATERIALS

- Clipboards, pencils and crayons
- The Tree Drawing that students started in Week 4

Preparation:

Organize your clipboards and Tree Drawings beforehand, it will make the transition into drawing much easier.

Procedure:

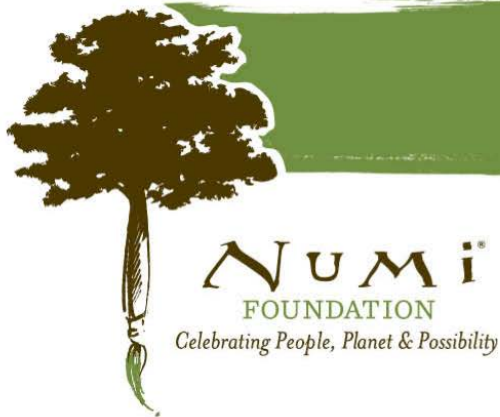
- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Recite the winter poem.
- Ask students to point to their head, then their feet, their shoulders, etc. “You have different parts of your body, and they each have different jobs. What do your hands do? Your eyes? Your legs?”
- “Just like you, plants have different parts, and each part has a job. Today we are going to focus on trees, and then we are going to draw the same tree we drew weeks ago. Can anyone name all the parts of a tree before we learn them?”

- Have students stand up, sit in their circle. Have them stand so their feet touch. “Your roots are underground, keeping you strong in the soil, and drinking water and food. Point to your roots.” Students should be pointing at the soil. “Even though you can’t see them, the roots are still there!” If there is a tree nearby, you can try to push it over, demonstrating to students that the roots keep the tree in the soil.
- “Your trunk keeps you standing straight and tall. It also pulls water from the roots to your leaves. Point to your trunk.” Students should point to their legs.
- “Your branches stretch out big and strong towards the sky (stretch out your arms) and from your branches grow your leaves (wiggle your fingers). Can everyone stretch out their branches and show me their leaves?” Repeat several times.
- “Because it is winter, we are going to drop our leaves. Can everyone show me dropping leaves?” You can have students with their fists clenched, with no more leaves.
- Gather students at the tree that you chose to draw each season. Have them point to the roots, trunk, and branches. Ask students where the leaves went. Will they grow back? Explain “Winter is a time when the earth rests. There are less hours of sunlight in the winter, and so trees hibernate in the winter as well. They drop their leaves, which take a lot of energy to grow, and focus on finding food from their roots. We will see the tree ‘come back to life’ in the spring.”
- Have students study the tree, because they are going to draw it.
- Similar to the procedure in Week 4, gather students in the outdoor classroom with their clipboards and drawings. Have them find the box that says Winter. As you draw the tree on the whiteboard, have them follow along in their box. They can draw an underground scene and a wintry sky.

Wrap up:

Have students collect materials.

Notes/Feedback:



Journaling Prompt: Trees

STANDARDS

K.SL.1

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- Have them explore other plants that seem to be undergoing winter changes.
- See if they can name the parts of the tree without your guidance.
- In their journals, "If you could be a tree, which kind of tree would you be? Where would you live? What would you grow? Draw a picture."

Wrap up:

Share in partners.

Notes/Feedback:



Introduction to Decomposition

STANDARDS

K.SL.6, K.LS1.1, K.ESS3.1, K.ESS2.2, K.SL.1

OBJECTIVES

- Students learn two reasons why trees lose their leaves
- Students build a leaf cage
- Students are introduced to the idea that plants become soil

MATERIALS

- A bag to collect leaves
- Gloves for students while collecting leaves
- A leaf cage, which is essentially a large crate that students will fill with leaves

Preparation:

Find a tree that has dropped all its leaves, and whose leaves are still at the base of the tree. Also find another pile of leaves that you can collect.

A leaf cage can be as simple as a milk crate, or as complex as a wooden box with chicken wire. Look online for different examples. It is important to fill the cage to the top, and to observe it every time you go to the garden.

Background Information:

Decomposition is an important concept to introduce from an early age. Though it is not necessary to provide many details about what causes decomposition, it is crucial that students begin to learn that all organic matter returns to the soil. Point this out, using examples from the garden, as often as you can.

Procedure:

- Students enter the garden and explore. Have students explore the tree that has lost its leaves. You will want them to notice the first sign of budding leaves, which usually happens sometime in February.
- Gather students, check in about the season and weather.
- Recite winter poem.
- “Who can tell me what you do when you are cold?”
- Class discussion.
- “Not only can we put on warmer clothes, but we can also move inside, or move to a place that is out of the wind, or use an umbrella to protect us from rain. As people, we do many things to keep ourselves warm. Just like us, trees that lose their leaves keep themselves warm through the winter.”
- Bring students to the tree that you found which has lost all its leaves. “Where have all leaves gone? They fell and now are at the base of the tree. Do you think it is warm or cool under all those leaves?”
- “One reason the tree drops its leaves is to create itself a blanket through the winter. The leaves help keep the soil warm through the coldest part of the winter. Can a tree buy a blanket from a store?”
- “The leaves will not stay there all year. Another reason the tree drops its leaves is really quite amazing. These leaves will eventually become part of the soil. They will make the soil strong and healthy, and will provide lots of food for the roots to eat in the spring. We are going to collect leaves to see how this works.”
- Give students gloves, and bring them to the place where they will collect leaves. Collect leaves in a bag and bring them back to the garden. Put the leaves into a leaf cage until it is all the way full.
- “What do you think will happen to these leaves over time?” Take responses. “This leaf cage will stay in our garden and we will observe how it changes.”

Wrap up:

Have students return gloves and wash hands.



Journaling

STANDARDS

K.L5.c

MATERIALS

- Journals, pencils

Procedure:

- Students enter garden and explore.
- If you have lots of fallen leaves in and around the garden, collect them and use them to cover other plants around the base. Tell students that the leaves keep the plants warm, and will eventually turn into soil that will help feed the plants.
- In their journals: "You learned two ways that a tree takes care of itself during the winter. It drops its leaves to keep warm, and to provide itself food in the spring. What are two ways you can take care of a plant? Draw yourself taking care of plants in the garden."

Wrap up:

Share in partners.



Compost

STANDARDS

K.L5.a, K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students are introduced to the idea that plant matter becomes soil
- Students explore the contents of a compost bin or worm bin

MATERIALS

- Material from a compost bin
- Magnifying glasses (optional)

Preparation:

Students will be exploring your compost bin, or worm bin. You can pull out a shoe box's worth of decomposing material to bring to your circle if there is not enough space for students to gather around your compost bin or pile.

Background Information:

Decomposition is the process by which organic matter is broken down into smaller parts. In later grades, students will learn about the fungus, bacteria and invertebrates that are in charge of decomposing. Here, it is important that students begin to explore what can and can't decompose, and how it relates to have a compost bin at school.

Procedure:

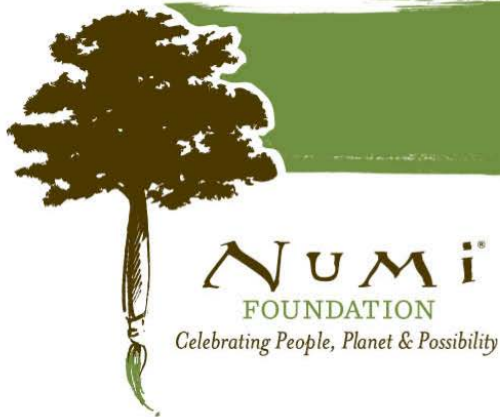
- Students enter the garden and explore. Explore the tree and the leaf cage.
- Gather students and check in about the season, weather, the tree, and the leaf cage.
- Recite winter poem.

- “Last week we talked about how the leaves that a tree drops can turn into soil. This is called the Nutrient Cycle, which is a big way of saying that everything that was once alive becomes the soil after it has died. All plants and all leaves in our garden will one day be soil again. Why is this important? It is important because all plants need soil to live! In nature, plants are either growing in soil, or becoming soil. In the garden, we make something called compost, which turns our old, dying plants into soil for new plants to grow.”
- Allow students to explore your compost bin, or the contents of your compost bin. They can use magnifying glasses, if you have them. Ask them to describe what they are seeing and feeling. Have them use their senses, except taste of course. Allow plenty of time for this. Show them whole pieces of fruit or plants, and show them small pieces of compost. Be clear about what can go into a compost bin, and what cannot go inside.
- Perhaps students are finding worms. Let them hold them gently, and teach them how to guard them from the sun. You can tell them that worms help turn old plants into new soil.

Wrap up:

Have students wash their hands.

Notes/Feedback:



Journaling Prompt: Compost

STANDARDS

K.SL.1

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter and explore.
- Encourage students to notice how leaves that are under trees are becoming softer and smaller and are starting to break down.
- In their journals, "One way nature takes care of herself is by constantly making new soil from old plants. What is one way you can take care of nature? Draw a picture."

Assessment:

Class discussion: What is compost? Do leaves under a tree stay there forever? What makes to old and dying plants?

Wrap up:

Take volunteers to show their pictures in front of the class.

Notes/Feedback:



Material: What is it made of?

STANDARDS

K.W.8, K.SL.6, K.L.5.a, K.L.5.c, K.LS.1.1, K.ESS2.2, K.ESS3.1

OBJECTIVES

- Students know that an object can be described by its material
- Students know that materials can be made from plants, come from the earth, or made in factories

MATERIALS

- Tools for garden work

Preparation:

On your whiteboard, have three columns ready: Plants, Earth, and Factory. Prepare garden work for students to do.

Background Information:

This lesson is relatively simplistic, but it is important to set the stage for the coming weeks when students learn about recycling.

Procedure:

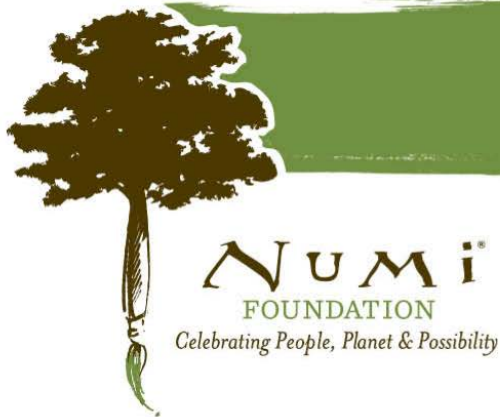
- Students enter the garden and explore. Explore the tree, the bulbs, and the leaf cage.
- Gather students and check in about the season, weather, the tree, the bulbs, and the leaf cage.
- Recite winter poem.
- “Today we are going to learn the word ‘Material’. Does anyone know what this means? Turn to your partner and try to use the word material in a sentence.”

- “When we describe an object, and say what it is made out of, we are talking about the material.” Point to a watering can, “For example, you can ask ‘What material is this?’ and I would say, ‘This watering can is made from plastic.’”
- “Most materials come from the earth, and we are going to explore different materials in our garden. Can you think of some common materials we use every day?” (Metal, plastic, wood).
- Have students explore the garden, and see how many materials they can name. You may want to get them get started: “The garden beds are made out of wood. The trowels are made from metal. This bucket is from plastic.”
- Gather students. Ask them to find 10 things in the garden made from wood. Ask if they know where wood comes from. Find 5 metal objects, and 5 plastic objects.
- Gather students in the classroom area. Have them list what they found. Sort their responses into the columns : Plants, Earth, and Factory. Explain that everything wooden or paper come from a tree. Everything metal comes from the earth, and everything plastic is made in a factory. See if they can think of more examples from the garden, or classroom of things that are made from plastic, wood or metal.
- Do the garden work you prepared.

Wrap up:

Have students wash hands and return tools.

Notes/Feedback:



Making Tiny Homes

STANDARDS

K.W.8, K.SL.6, K.L.5.a, K.L.5.c, K.LS.1.1, K.ESS2.2, K.ESS3.1

MATERIALS

- Examples of cotton and wool and a straw hat

Procedure:

- Students enter the garden, and explore.
- Continue asking about materials in the garden. See if they can find things made from multiple materials.
- Ask if plants are made of a material, or if they are just plants. Can you use plants to make other things? See if they know of anything made from plants, other than wood or paper. Show them a cotton shirt, and explain that it is made from the cotton plant. Show them something from wool, and explain that it was made from a sheep's fur. Show a straw hat, and explain how it was made from a type of grass.
- Let students collect different materials from the garden (grasses, rocks, woodchips, etc) and instruct them to build a little house for a little creature. Ask if they can think of any animals that build their homes from such materials.

Wrap up:

Go on a tour, as a class, and look at every student's little home.



Recycling Paper

STANDARDS

K.ESS3.3, K.ESS2.2

OBJECTIVES

- Students learn about recycling paper
- Students learn the difference between reusing and recycling
- Students do a project to reuse paper

MATERIALS

- Stacks of old catalogs, magazines, brochures, scrap paper, wrapping paper, etc
- One per child: Pencils, scissors, glue, necklace-length string
- “The Giving Tree” by Shel Silverstein

Preparation:

You will need to collect your stacks of paper beforehand. You may want to do the necklace making indoors. In which case, have all of the materials organized before you go outside to make the transition easier. You may also want to have examples of finished beads to show them before they get started.

Background Information:

This lesson explores recycling paper products, and the next lesson explores recycling food by composting. If students bring up recycling bottles and cans, be sure to explain to them the basic process, but we are not going to go into depth in these lessons.

Procedure:

- Students enter the garden and explore. Explore the tree, the bulbs, and the leaf cage.
- Gather students and check in about the season, weather, the tree, the bulbs, and the leaf cage. Are there any big changes?
- Recite winter poem.
- “Last week we explored the different materials in our garden. Today we are going to focus on things made from trees. Can you name any?” See how many types of paper students can name, and see if they can list different products made from wood, from pencils to houses.
- Read “The Giving Tree” and facilitate a discussion about what the boy asked for, and what the tree gave. Ask if the tree had anything left to give at the end. “How can we take from the earth, but make sure we give back? How can be sure to not waste things we take?”
- Class discussion.
- “Have you ever heard the word Recycle? Does anyone know what it means, or heard someone use it before? What do you do when you recycle? What do you recycle at lunch? What have you seen go into a recycle bin?”
- “When we finish using paper products, we can put them in a recycle bin. It goes to a factory where it is broken down and remade into something else. This is called recycling, and it is important to recycle instead of cutting down more trees.”
- “There is something else we can do when we finish using something made from paper. It is called Re-Using. Reusing means to use it again. It is a lot of work to bring things to a recycling center, and for factories to recycling paper materials, when we can really reuse many paper materials at home or in the garden. Can you think of anything examples?” (Drawing on both sides of a piece of paper, turning milk cartons into bird feeders, putting newspaper in a worm bin). There are lots of ways to reuse paper, and today we are going to make jewelry out of old paper products.”
- Transition kids inside, if they are going to do the project indoors.
- Each child gets several pieces of paper. They cut the sheets into long skinny triangles, about an inch at the bottom, and 5 inches tall. Show plenty of examples. Then they put a pencil at the bottom of the triangle, and roll the paper around until it is tightly wrapped. Glue the triangle tip down. Remove the pencil and let it dry. Let students make about 10 beads.
- When their beads are dry, they can string the beads and make a necklace!

Wrap up:

Organize the materials, wash hands, recycle paper scraps.



Journaling Prompt: Recycling

STANDARDS

K.ESS3.3, K.ESS2.2

MATERIALS

- Journals, pencils

Preparation:

If students need to work on their beading projects, have the materials available inside.

Procedure:

- Students enter the garden and explore. Perhaps there are changes to notice on the tree. Perhaps they are noticing birds and insects. Explore these changes, they will become more pronounced as spring approaches.
- Provide students with newspaper to feed to the worms in the worm bin. Explain that they are nature's recyclers; they are constantly turning dead plant material into compost.
- In their journals, "Can you think of two ways that mother nature recycles? Draw a picture."
- If many students have not yet finished, you can go inside to work on the beading project.
- Be sure to have a recycling bin in your classroom, and reinforce that paper products, which come from trees, need to be recycled.

Wrap up:

Return all materials.



Recycling Food

STANDARDS

K.W.8, K.SL.1, K.L.5.a, K.LS.1.1, K.ESS.2.2, K.ESS.3.3

OBJECTIVES

- Students learn that plants and food can be recycled into compost
- Students see that compost becomes part of soil
- Students see that nature makes compost naturally, and that we copy that model small scale (in a compost pile) and large scale (in the school cafeteria)

MATERIALS

- Samples of finished compost
- Materials that can go into a compost bin (food, newspaper, tea bags) and things that cannot (plastic wrappers, cans, etc)

Preparation:

Collect samples of things that can and cannot go into a compost bin. Have finished compost available. Be prepared to amaze students that old food and plants can turn into compost!

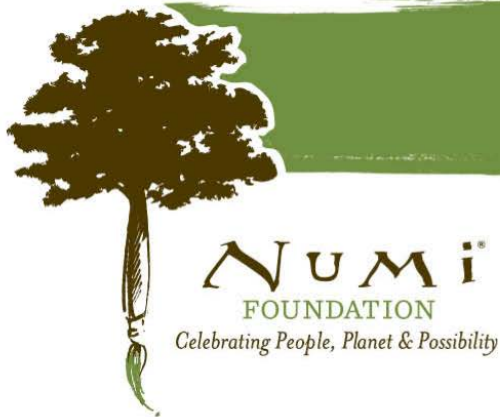
Procedure:

- Students enter the garden and explore. Explore the tree, the bulbs, and the leaf cage.
- Gather students and check in about the season, weather, the tree, the bulbs, and the leaf cage. Are there any big changes?
- Recite winter poem.
- “Last week we talked about recycling and reusing paper products. Can anyone tell me different places at school we can recycle paper? How can we reuse paper at school? How about at home?”

- Bring students to the tree that you've been observing. Look at the leaves underneath. Give kids time to explore these leaves, and notice how they are breaking down. This can also be done in the leaf cage. Show students how the leaves at the bottom are breaking down, or already broken down and turning into compost, which becomes part of the soil.
- Explain "Mother Nature is very wise, and figured out how to reuse all of her plants. When they die, they become part of the soil again. Plants need healthy soil to survive, and it becomes healthy when it gets compost, or decomposed plants. People, especially gardeners and farmers, copy Mother Nature when we create a compost pile. We use compost piles (or worm bins) to turn our dead or dying plants into compost, which we put into the soil to feed the growing plants. We can only put certain things in our garden compost bin, only things that are plant material."
- To teach students about plant and animal material, hold up the different items you collected and ask if it can go into a compost bin or not. Students should be learning that the food we eat is plant material, and that if it grows from the earth, it can return to the compost.
- Let them hold finished compost. Ask them to smell it, feel it, describe it. Ask what kinds of things they are holding in their hands. (Leaves, old apples, whatever they can think of that is plant material!)
- If you have a compost and recycling program in your school cafeteria, bring students to the cafeteria and show them the recycling and compost bins. Ask what kinds of things from their lunch can go into the compost bin. Show them that they can put anything that comes from a plant OR an animal in the cafeteria compost. Explain that we do not put animal products in our garden compost because we do not want to attract animals. (Hopefully this is a review).
- Then take students to your school's dumpster, and show how the compost and recycling from the cafeteria and classrooms are sorted into even bigger bins. Explain how the compost and recycling are taking to a huge processing center, and what happens there.

Wrap up:

Have students gather any material in the garden that can go in the compost bin, and place it inside the bin.



Compost Quiz

STANDARDS

K.W.8, K.SL.1, K.L.5.a, K.LS.1.1, K.ESS.2.2, K.ESS.3.3

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- You can have them explore the leaf cage in depth, and see if any insects are in there.
- You can ask student collect items to be put in the compost, or to explore the compost bin. Teach them that if they are not sure if something can go into the compost, ask themselves if a worm would eat it. If the answer is yes, then it can go inside.
- In their journals, "In a forest, leaves and branches and trees are falling all the time and becoming part of the soil. New plants grow from these old plants. Draw a forest. What animals are there? What plants?"
- If students have extra time, they can draw 5 things they can put in the compost bin, and 5 things they cannot. Challenge them to name the materials of the items that cannot go in the compost bin.

Wrap up:

Return journals, wash hands.



Garden Creatures

STANDARDS

K.SL.6, K.W.8, K.ESS2.2, K.ESS2.1, K.ESS3.3, K.ESS3.1

OBJECTIVES

- Students recognize the different types of animals (including insects) that spend time in the garden
- Students can find evidence that an animal has been in the garden, even if they can't see it
- Students know that animals can change the garden

MATERIALS

- "The Snail's Spell" by Lynne Cherry (or another book about animals in the garden)

Background Information:

Our Oakland climate includes a mild, rainy winter and an early onset of spring. It is possible that you are seeing signs of spring in your garden already. It is important to start discussing these with your students, as well as explaining that in some parts of the world, it does not begin to get warm until much later in the year. Explain that even though it is not spring on the calendar yet, the plants and animals respond to warmer weather and longer days, which is why you may already have leaves budding on trees, or more insect visitors.

Procedure:

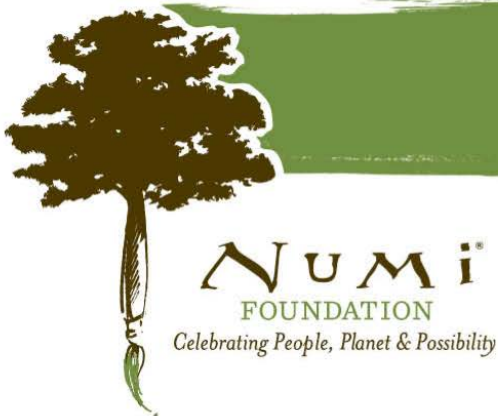
- Students enter garden and explore, taking notice of the tree, bulbs, and leaf cage.
- Gather students in opening circle, check in about the season, weather, tree, bulbs and leaf cage.
- Recite winter poem.
- Discuss signs of spring, if there are any.

- “We have been talking extensively about the plants in our garden. Today we are going to focus a little more on the animals we see here.”
- Read “The Snail’s Spell” or another book you have chosen. Have students name all the animals they can see.
- Ask students “Why do animals come to a garden?” See how many responses they can come up with.
- Ask students how different animals in the story can change the garden, while looking for a home, or while looking for something to eat. See how many they can come up with. (For example, snails eat plants, birds eat seeds and other insects, mice dig holes, squirrels hide seeds).
- Ask, “Are people animals?” and discuss.
- “How do people change our garden? What kinds of things we do in the garden to help our plants grow?” Discuss. “How do we change the earth outside of the garden? How can we try to change less?” Discuss.
- Send students into the garden to find at least five animals.
- Extra challenge: Find 5 examples of “animal evidence” (Spider webs, holes in a leaf, bird droppings, etc).

Wrap up:

Find a worm and thank it for making our soil strong and healthy.

Notes/Feedback:



Journaling Prompt: Animals

STANDARDS

K.SL.6, K.W.8, K.ESS2.2, K.ESS2.1, K.ESS3.3, K.ESS3.1

MATERIALS

- Class set of magnifying glasses
- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- Have students pretend to be a bird. Where would you go in the garden? What would you look for? Repeat, becoming a bee, butterfly, or a snail.
- Give students magnifying glasses, and encourage them to look for insects underneath leaves, under rocks and logs.
- In their journals, “Find an animal. It can be as big as a bird, or small as an ant. Draw its home, and what it eats. Then draw yourself. Draw your home, and things you eat.”

Wrap up:

Share in partners.



Animals Change Our Garden

STANDARDS

K.SL.6, K.W.8, K.ESS2.2, K.ESS2.1, K.ESS3.3, K.ESS3.1

OBJECTIVES

- Students learn the basics of garden helpers and garden pests
- Students understand that while a caterpillar is a pest, a butterfly is a helper!

MATERIALS

- “The Very Hungry Caterpillar” by Eric Carle
- Magnifying Glasses, class set

Preparation:

Identify some areas in your garden that may have aphids or caterpillars.

Background Information:

Common garden helpers:

Worms: Turn plant matter into nutrient rich soil and build tunnels underground which aerates the soil.

Ladybugs: Eat aphids.

Birds: Eat insects that cause damage.

Bees & Butterflies: Pollinate flowers providing us with food to eat.

Common Garden Pests:

Caterpillars, slugs, snails: Eat leaves of plants

Aphids: Suck nutrients from leaves, making plants weak and eventually killing them.

Birds: Sometimes eat plant seedlings

Procedure:

- Students enter garden and explore, taking notice of the tree, bulbs, and leaf cage.

- Gather students in opening circle, check in about the season, weather, tree, bulbs and leaf cage.
- Recite winter poem.
- Discuss signs of spring, if there are any.
- “Last week we tried to find animals in our garden, and we even found evidence that animals had been here. What are two main reasons animals come in and out of our garden?” (Looking for food and shelter).
- Read “The Very Hungry Caterpillar”. Ask students which of the foods the caterpillar ate is the one he is supposed to eat. Ask students what caterpillars become.
- “Sometimes animals and insects really help our garden, we call them helpers, and sometimes they can really hurt it, we call them pests. Can anyone think of garden helpers? Garden pests?” List student responses. “You listed caterpillars as a pest because they eat our leaves. But you listed butterflies as helpers! Aren’t they the same animal?”
- Bring students to the plants you found with many aphids or caterpillars. Let the students describe the damage they see.
- Sending students to explore on their own, or in partners, with magnifying glasses. Remind them not to touch insects. Challenge them to find three helpers, and three pests. They don’t need to see the animal itself, they can use evidence as well.
- Gather students, and have them share out their findings.

Wrap up:

Return magnifying glasses.

Notes/Feedback:



Journaling Prompt: Birds

STANDARDS

K.SL.6, K.W.8, K.ESS2.2, K.ESS2.1, K.ESS3.3, K.ESS3.1

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- Encourage them to continue looking for garden helpers and pests.
- Have birds returned to your garden? If so, have your students do a quiet sit, and listen to birds for at least one whole minute. "Imagine what the birds are talking about."
- In their journals, "Pretend you are a bird. Where do you live? Where would you fly to? Draw."

Wrap up:

Share in partners.



Planting Trees

STANDARDS

K.ESS3.3, K.LS1.1

OBJECTIVES

- Students plant a tree
- Students know what a tree needs to live
- Objective 3

MATERIALS

- A tree
- Shovels, watering cans
- A camera

Preparation:

Organize a tree planting with a local organization, or buy a tree to plant on campus. Make sure you have all necessary paperwork in order before planting.

On the day of the planting, have watering cans full, gloves and shovels at the ready.

Background Information:

There are many Oakland organizations that may be able to help you coordinate a tree planting, for example Urban Releaf or the Sierra Club. You can also coordinate the

planting yourself by buying a tree from a local nursery. Be sure to ask which varieties do well in your region. It is also important to coordinate with those who maintain your school; you may need written permission to plant a tree on campus.

The rule of thumb, in our area, is that a newly planted tree needs 5 gallons of water, March-November, for two years. Perhaps your students can give each tree half a gallon of water every two or three weeks. Be sure to find someone who can care for the trees over the summer.

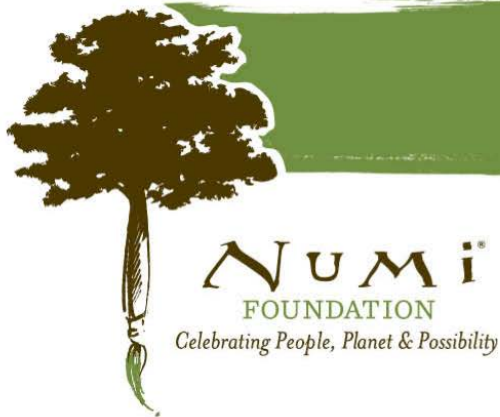
Procedure:

- Bring students to the area of the tree planting.
- Show them the tree(s) in its little pot. Ask where the roots are, and if they have enough space.
- Ask what a tree needs to live. Show them where you are planting. Ask if there is enough space, enough soil, enough air, and access to sun.
- As a class, take turns digging the hole(s) for the tree(s). Remove the tree from its pot. Have students identify the different parts of the tree. Allow them to feel the roots.
- Plant the tree, and cover it with soil. Let students water the tree.
- Ask students what trees provides us. (Air to breathe, fruit to eat, wood for homes and building and paper, shade, beauty, etc).
- Make a circle around your tree(s) and let each student thank the tree for something it provides.
- Take a picture of your students by their tree!

Wrap up:

Have students help gather materials and clean the area.

Notes/Feedback:



Journaling Prompt: Imagine the Future

STANDARDS

K.ESS3.3, K.LS1.1

MATERIALS

- Journals, pencils
- Material 2
- Material 3

Procedure:

- Students were not in the garden earlier this week, so give them extended explore time.
- Check in about the season, weather, the leaf cage, the bulbs, and the tree.
- Have a discussion about the seasonal changes they are witnessing in the garden.
- Let them visit their newly planted tree, if it is on campus, and let them sit by it.
- In their journals, “Imagine you stepped in a time machine and came back to this exact spot in 100 years. What would you see? Draw the tree, and all of its animal visitors.”

Wrap up:

Share in partners.



Spring!

STANDARDS

K.W.3, K.W.8, K.SL.6, K.ESS2.1

OBJECTIVES

- Students learn that the season has changed to spring
- Students observe and can articulate how the garden changes in the spring
- Students learn how to draw a butterfly

MATERIALS

- My Spring Robin by Anne Rockwell (or another book about spring)
- Class set: clipboards, paper, crayons

Preparation:

With the return of spring comes the return of the bees and butterflies. While bees tend to keep to their own business, a started student may startle a bee making it more likely to sting. Teach students about how to control their bodies around bees, and they may even learn to be comfortable around bees to be able to observe their movement from flower to flower!

Also, find a spot for students to sink their hands into the soil.

Procedure:

- Students enter the garden and explore.
- Check in about the season and weather –it is spring!
- What are signs of spring? If the students have been tracking their bulbs, and the trees in your garden, they will know that these are signs of spring. Other signs they may mention are warmer weather, rain showers, longer days, flowers blooming, and the return of some birds and insects.

- Teach your students their spring poem, which can be sung to the tune of “Twinkle, Twinkle, Little Star”:

Spring, spring is coming soon,
Grass is green and flowers bloom,
Birds returning from the south,
Bees are buzzing all about,
Leaves are budding everywhere,
Spring, spring is finally here!

- Read “My Spring Robin” and discuss spring changes.
- Take students to the area you found where they can sink their hands into the soil. Ask them how it feels. Does it feel warmer or cooler than in the winter?
- As a class, practice observing bees very carefully. See if you can see their side pouches full of pollen.
- Do a scavenger hunt, challenging students to find flowers of every color. Students can pretend to be bees or butterflies as they move through the garden.
- Gather students in your circle. Distribute paper and clipboards and one black crayon per student. As you draw a butterfly on your board, have them copy on their paper. Butterflies are insects and have six legs, two antennae, and two wings. Narrate as you draw.
- Once students have their outline in black, give them crayons to take anywhere in the garden to color in their butterflies.

Wrap up:

Gather students, have them show and tell their butterflies, and collect materials.

Notes/Feedback:



Journaling Prompt: Favorite Flower

STANDARDS

K.SL.6

MATERIALS

- Journals, pencils, crayons

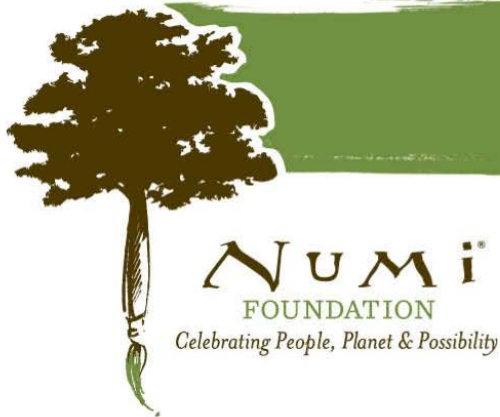
Procedure:

- Students enter the garden and explore.
- Pay extra attention to spring changes; they happen quickly!
- Ask students to find their favorite flower. Let them sit with their flower for one minute, just observing it.
- In their journals, "If you could pick your favorite flower, who would you give it to and why? How do you think they would feel? Draw a picture."

Wrap up:

Encourage students to share their journal entries in front of the class.

Notes/Feedback:



Seeds

STANDARDS

K.W.8, K.L.5.a, K.ESS2.1

OBJECTIVES

- Students begin an exploration of seeds
- Students can articulate that seeds are living, and “wake up” when they get wet
- Students see that seeds be many sizes, colors and shapes

MATERIALS

Bags of seeds, different sizes, shapes, colors, for example:

- One bag with different types of beans
- One bag with three distinct sizes of seed
- One bag with three distinctly colored seeds

Preparation:

Organize your bags of seeds for students to explore.

Background Information:

It is important to establish from the very beginning of a child’s garden education that seeds are alive, and as diverse as people on the planet!

Procedure:

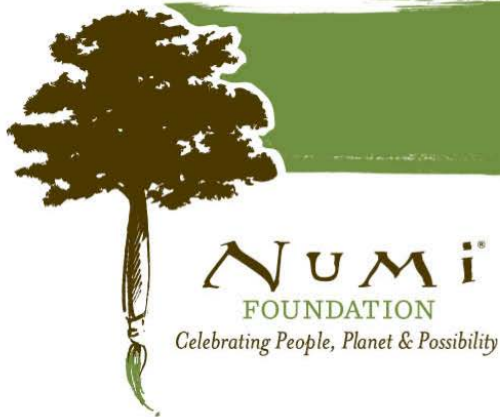
- Students enter garden and explore.
- Check in about season and weather.
- Recite the spring poem.
- “We are beginning an exploration of seeds today, what do you already know about seeds?”

- The following activity is called “Seed bodies”: Have students crouch into a tiny ball on the ground and say “You are a tiny seed! You were lovingly planted in the dark, warm soil by a very friendly Kindergartener. Sshhh....it’s so silent where you are, and you are cozy in your soft, new home. You are sleeping, and enjoying the quiet. All of a sudden, you feel some water! A kindergartener has come outside and is watering you with a watering can. You feel the water soaking into your skin, you feel yourself growing a little bigger. This happens every day when the kindergartener comes out to the garden. You feel something changing inside of you, and all of a sudden, you are ready to sprout! You send a tiny little root deep into the soil to explore for food. (Show students how to start
- come out from a crouch). You also send up to little leaves to look for the sun. (Have students put their hands palm to palm, and poke up above the soil). Poke! Your first two leaves push through the soil. A kindergartener comes outside and yells to her friends that her seeds have sprouted! They water you and your roots drink it all up, and you feel the warm sun your leaves. Slowly, slowly, with more sun and water and air you start to grow big (show students how to grow slowly). You have a tall stem, deep roots, and lots of green leaves. One day you form a flower bud (have students color their face with their hands), you turn towards the sun and bloom (students open arms wide) into a beautiful flower! Bees and butterflies come visit your flower (you pretend to be a bee) and your flower turns into a seed and drops it onto the soil (students drop back down to soil)”
- Repeat this several times, but changing the type of seed they pretend to be (e.g. A squirrel buries and acorn and students grow into an oak tree, or a farmer plants a pumpkin seed, etc)
- Have students return to seated, and ask “Are seeds alive? (Yes!) What makes them wake up? (Water) Do people plant seeds? Do animals plant seeds?”
- Have students name different types of seeds they know. They may be surprised that we eat seeds in nearly every meal, including all our grains and beans.
- Let each student have a handful of seeds, and let them explore the seeds without too much guidance, letting them describe what they see and feel.

Wrap up:

Return seeds to teacher.

Notes/Feedback:



Seed sorting

STANDARDS

K.W.8, K.L.5.a, K.ESS2.1

MATERIALS

Bags of seeds, different sizes, shapes, colors, for example:

- One bag with different types of beans
- One bag with three distinct sizes of seed
- One bag with three distinctly colored seeds

Preparation:

Organize seed bags.

Procedure:

- Students enter the garden and explore.
- If they enjoyed it, go through “Seed bodies” a few more times.
- In the garden classroom, give each child a handful of the different sized seeds. Have them sort by size.
- Collect seeds, and give them a handful of different types of bean, and have them sort by type.
- Collect seeds, and give them a handful of different colored seeds, and have them sort by color.
- Ask if their seeds are alive. Ask what the one thing seeds need to wake up. (Water)
- Ask them what seeds need once they have woken up. (Warmth/sun, more water, soil, air).

Wrap up:

Return seeds.

Notes/Feedback:



Prepare to Plant

STANDARDS

K.W.3, K.W.8, K.ESS.3.1

OBJECTIVES

- Students learn and complete the steps to prepare a bed for planting
- Students understand why they add compost to a bed before planting

MATERIALS

- Compost
- A bucket to collect pulled weeds
- "Inch by Inch: The Garden Song" by David Mallett

Preparation:

Find the area in which you'll plant next week. This week you will prepare the bed for planting. Also be sure to have compost to add to the soil.

Procedure:

- Students enter garden and explore, pay extra attention to the leaves under your tree, and to the leaf cage.
- Check in about the season and weather, the leaves under the tree, and the leaf cage.
- Recite the spring poem.
- "All over the world, farmers and gardeners prepare their garden for a big planting in the spring. Can you think about why we do a big planting in the spring?" (Longer days, more sunshine, warmer soil).
- "You saw that the leaves under the tree, and in our leaf cage, have become part of the soil. When those leaves decomposed, they added nutrients to the soil, or in other words, are providing food for the plants. Next week we will be doing our spring planting, and today we are going to prepare the garden."
- Read "Inch by Inch: The Garden Song".

- Return to the page about pulling weeds and picking stones. Bring the students to the area they are going to prepare, and show them how to pull weeds and pick out big rocks. Have them feel the soil again and notice that it is warmer. Ask, “What is making the soil warm?”
- If there are big clumps of soil, show them how to break them. Give each student a handful of compost, “This is compost. This is made from old plants. Mother Nature makes compost naturally, like we saw under the tree, but when we garden we have to add compost. Compost is food for the plants.” Have students add their compost to the bed.

Wrap up:

Students wash hands.

Notes/Feedback:



Making Signs

STANDARDS

K.L.5.c

MATERIALS

- Wooden signs/garden stakes, outdoor paint and brushes (optional)

Preparation:

If painting, gather all materials in the place you will be painting. It would be wise to lay newspaper under the wooden garden stakes. Recruit a volunteer if you can; paint with half the class while the others are doing “Seed Bodies” and then switch.

Procedure:

- Students enter the garden and explore
- The spring garden is very sensory-rich. Do a “five senses” exploration with them.
- Gather students. “Next week we are going to plant carrots and radishes and turnips.”
- Do ‘Seed Bodies’ where the students become one of these vegetables.
- Optional: Students paint signs that say “Just Planted” or “Sleeping Seeds” to put in their newly planted bed next week.

Wrap up:

Clean paint brushes, wash hands. Leave wooden garden stakes in a safe place to dry.



Spring Planting

STANDARDS

K.W.3, K.W.8, K.SL.1, K.LS.1.1, K.ESS.2.1

OBJECTIVES

- Students plant their spring garden
- Students can articulate all steps of the process
- Students can be sure that their seeds are getting everything they need to grow

MATERIALS

- “The Carrot Seed” by Ruth Krauss
- Carrot, Turnip, and Radish seeds
- Hand rakes
- Row Cover, and stakes or stones to weigh down the row cover.
- Spray bottle
- Craft sticks and a permanent marker

Preparation:

In the area you prepared for planting, know where you’re going to plant carrots, radishes, and turnips. Perhaps you can label the areas with craft sticks beforehand. Also cut the row cloth to fit the bed you are planting.

Background Information:

There are dozens of varieties of carrot, turnip and radish seeds. Any type can work well in the school garden. Carrots, however, take months to grow before they are ready to harvest. Try to find a baby carrot variety, which are smaller, grow faster, and are just as tasty.

Row cover, or row cloth, can be bought at any garden center, and is an important thing to have, and to use. Carrots take an exceptionally long time to sprout, and need to be kept moist throughout their two-three week germination period.

Procedure:

- Students enter garden, and explore.
- Check in about the season, and weather.
- Recite the spring poem.
- “It is planting day! We are connecting to people all over the world who do big spring plantings. Today we are going to plant carrots, radishes and turnips. Remember in the fall when we talked about how different plants prefer different weathers? Based on the season, can you guess what weather these plants prefer?” Discuss responses.
- All of these plants prefer warm, but cool weather. They all do really well in sunny areas, and need lots of warmth, but also need cool weather. They grow very well in the spring, but would not grow well in the coldest part of the winter, or the hottest part of summer. Another interesting thing is that radishes sprout very quickly, and carrots take a long time to sprout.”
- Read “The Tiny Seed”.
- Gather students at the area that they prepared last week. Give students hand rakes, and let them incorporate the compost into the soil. Then smooth the area with your hand. Take a craft stick and say, “I am making furrows. Furrows are little indentations, or grooves, in the soil. We will be planting our seeds in these furrows.” Make a furrow for the carrot row, the radish row, and the turnip row. The seed packets can tell you about how deep each need to be.
- Divide students into a carrot group, a radish group, and a turnip group. Distribute the seeds. Give them time to look at their seeds, and describe. Show students how to carefully sprinkle their seeds into the furrows. Show them how to carefully “pinch” the furrows closed. Be sure that no one pats the seeds down; that takes the air out of the soil!
- Ask, “The seeds have space, and air, and are in a warm spot. But if we leave them here like this, they’ll never wake up! What else do they need?” (Water!) Distribute the spray bottles, and allow each student 10 sprays before passing the bottle on. (You may need to come back after class and water the area gently).
- Ask the students what makes the soil warm. (The sun). “The sun warms the soil, which the seeds need, but it also dries out the water. Just as the sun dries out a puddle after a rainy day, it also dries the water out of garden. One way to keep the soil moist is to cover it with something called row cover.” Show students the cloth, and have them help you cover the newly planted area, and weigh it down. “The row cover does many things, it keeps the soil moist while still letting the sun through. It also protects our seeds from hungry birds and insects. It can also keep our little seeds warm.”
- If you made “Just Planted” signs, put them in the garden as well.

Wrap up:

Have students help return materials to where they belong, and wash hands.

Notes/Feedback:



Journaling Prompt: Planting

STANDARDS

K.W.8

MATERIALS

- Spray bottles
- Journals, pencils

Procedure:

- Students enter garden and explore—it is quite possible that your radish seeds may have sprouted. You can remove the row cloth to check, just be sure to replace it.
- Students can water their seeds with the spray bottles. They can water right through the cloth.
- In their journals, “Draw a picture from planting day”. With your help, students can begin to label their drawing.

Assessment: Gather students and ask them to review the steps to planting, everything from choosing a spot, to pulling stones, to adding compost, drawing a furrow, planting, watering, and covering.



Spring Tree

STANDARDS

K.W.3, K.ESS3.1, K.SL.1, K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students learn and draw the parts of the tree
- Students learn that trees change through the seasons

MATERIALS

- Clipboards, pencils and crayons
- The Tree Drawing that students started in Week 4

Preparation:

Organize your clipboards and Tree Drawings beforehand, it will make the transition into drawing much easier.

Procedure:

- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Recite the spring poem.
- Ask students to become trees: Have them point to their roots, their trunk, and branches. It is spring, “Do you have leaves? Do you have flowers?”
- Go visit the tree you planted several weeks ago. Are there any changes?
- Go visit the tree that you have been observing all year. Ask students to point to the trunk, the roots, the branches and leaves. Are the leaves large? Or are they still small? If it’s a fruit tree, is it blooming? “What color are the flowers? Which insects do you see visiting the flowers?”
- Ask students to turn to a partner and explain what roots do for the tree. Repeat with trunk, and branches. They may not know all the answers, but see how much they can articulate.

- Tell them, “In fall and winter we saw this tree lose its leaves. We learned that the winter is a time when it is colder, and with less sunlight. The tree rests, and stores all its energy underground. Its leaves become part of the soil, giving the tree plenty of energy for the spring. Now we can see the tree bursting back to life. How do you feel after taking a nap, or waking up from a long sleep?”
- “What changes has the tree gone through since spring began? Study the tree well, because we are about to draw it.”
- Similar to the procedures in Weeks 4 and 12, gather students in their garden classroom with their clipboards and drawings. Have them find the box that says Spring. As you draw the tree on the whiteboard, have them follow along in their box. They can draw an underground scene and a bright spring sky. They can also draw bees and butterflies.
- “We do not have school in the summer, but our tree will undergo some more changes as summer approaches. Can anyone think of what these changes may be?”
- Have students draw the Summer tree. The leaves should be bigger, and if it is a fruit tree, the blossoms will have changed to fruit. Have them do the best that they can.

Wrap up:

Students help collect materials.

Notes/Feedback:



Journaling: Seasonal Tree Drawing

STANDARDS

K.W.3, K.ESS3.1, K.SL.1, K.ESS2.1, K.ESS2.2

MATERIALS

- Watering cans
- Journals, pencils, crayons
- Tree drawings, clipboards, pencils, crayons

Preparation:

Fill watering cans.

Procedure:

- Students enter the garden and explore.
- Students water their seeds, and check for changes.
- If they have not finished any part of their Seasonal Tree drawing, have them work on it.
- Students that have finished can sit in a part of the garden that they enjoy and draw something that they see.

Wrap up:

Return materials.



Radish Harvest

STANDARDS

K.W.3, K.L.5, K.SL.6

OBJECTIVES

- Students harvest their radishes
- Students observe the difference between areas under the row cloth, and next to the row cloth

MATERIALS

- Cutting board and knife for the radishes
- Soap to wash hands

Preparation:

Be sure the radishes are ready to harvest. If they are not, postpone this lesson and do another one in the meantime.

Procedure:

- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Recite the spring poem.
- Ask, "Several weeks ago we planted carrots, radishes and turnips. Only one is ready to eat today. Can someone tell me all the steps we took, starting from preparing the bed to watering the seeds?"
- After students are clear on the order of events, tell them that the next step is to harvest it. "To harvest means to pick or pull a plant that is ready to eat. Today we are ready to harvest the radishes." Have students turn to a partner and use the word harvest in a sentence.
- Have students wash their hands before harvesting.

- Bring students to the area they planted, and lift the row cloth. Compare the size of the radish leaves to the carrot leaves and turnip leaves. Explain that some plants grow faster than others. Compare the moistness of the soil under the row cloth, and next to the row cloth. Reiterate that the row cloth keeps the soil moist by protecting the soil from the sun. Show students how to harvest radishes from the area where the leaves meet the root. Once all students have harvested, bring them to a station to wash their radishes.
- You may want to do a second rinse of the radishes. Have the students seated while you cut off the radish tops and bottoms. Explain, “Like all plants, radishes have roots, stems and leaves. We do not eat the radish leaves, or the radish stem. We eat the root.”
- Cut the radishes into quarters and distribute to students. Acknowledge the soil, sun, and water that turned the seeds into food for us to eat.
- Taste your radishes!
- Thank students for trying something new. If they do not like it, practice saying “It’s not for me” and then putting the radish into the compost.
- Ask them to describe what they taste, as well as the sensations in their mouth (crunchy, juicy, etc).

Wrap up:

Wash hands.

Notes/Feedback:



Watering and Journaling

STANDARDS

K.W.3, K.L.5, K.SL.6

MATERIALS

- Watering cans
- Journals, pencils

Preparation:

Fill watering cans.

Procedure:

- They should water their seeds, and check for changes.
- Do “Seed Bodies” with your students, and have them go from radish seeds to radishes that are ready to be harvested. The second time, pretend to not harvest the radishes, and narrate “Your kindergarteners forgot about you and did not harvest you! Your roots continue to grow and grow, and your leaves grow taller towards the sun. You grow many flowers, bees and butterflies visit your flowers, and turn your flowers into seeds. These seeds dry and fall to the soil (students drop and become seeds again).” Repeat at least one more time.
- In their journals “Draw a picture of how you felt harvesting your radish. Label as much as you can.”

Wrap up:

Share drawings.



Farms

STANDARDS

K.LS.1.1, K.ESS.2.2

OBJECTIVES

- Students learn that most fruits and vegetables grow on farms, grown by farmers
- Students can articulate the difference between a garden and farm
- Students understand that there are many steps between a seed and the grocery store

MATERIALS

- “The Vegetables We Eat” by Gail Gibbons, or a similar book about farms

Preparation:

This lesson teaches students a very simplified schema of what happens on a farm. However, the suggested book is quite detailed for kindergarteners, so look through it before the lesson. You can include as many or as few details as you see fit. Students will enjoy naming the tools and tractors. You can also add that many farmers don’t need to buy fertilizer from the store, because they recycle their old plants in compost, which is food for the plants.

Lastly, identify what part of the garden you want to work on at the end of class.

Procedure:

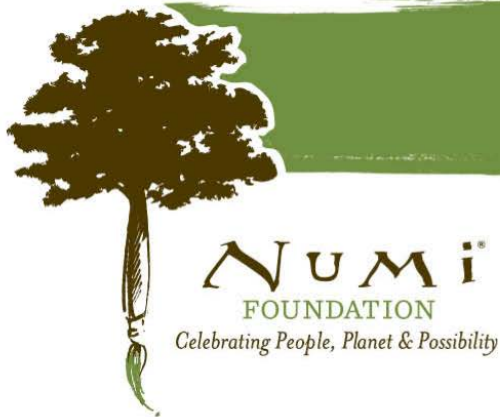
- Students enter garden and explore.
- Gather students in classroom, check in about season and weather.
- Recite spring poem.
- “Today we are going to talk about the different fruits and vegetables that we eat. If you’re hungry, where is someplace that you can get food to eat?”

- Take responses (Grocery store, restaurant, cafeteria, my parents, the kitchen, from a tree, etc).
- “Some people grow most of their own food in their gardens. However, most people buy food from a grocery store or from a farmer’s market. How does the food get to a grocery store? Where does it come from?”
- Take responses.
- “Many of you are mentioning that food comes from farms. Someone who works on a farm is called a farmer, his or her job is called farming! Farms can be out in the country, or in the city. Farms come in all shapes and sizes, and can grow different things. Today we are going to read a story about vegetable farms and gardens. We will learn about different types of vegetables, and the difference between a garden and a farm.”
- Read “The Vegetables We Eat” or the other book you have chosen.
- Discuss, seeing if students can name the difference between a garden and a farm.
- Have students name the different tools needed in a garden.
- Have students name some of the steps from seed to grocery store, and the number of people (and jobs) involved.
- Mention, and show, the farm workers. This will be important information for next week’s lesson on Cesar Chavez.
- Have students go into the garden, pretending to be farmers, and look for two garden jobs that need to be completed.
- Do garden work!

Wrap up:

Wash hands.

Notes/Feedback:



Role Playing: Farmer

STANDARDS

K.LS.1.1, K.W.8, K.SL.6

MATERIALS

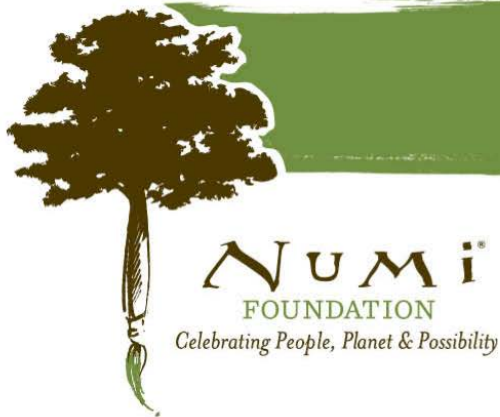
- Journals, pencils
- Tools for garden work

Procedure:

- Students enter garden and explore.
- If students enjoyed pretending to be farmers, you can continue with this and give them different tasks. Or you can ask them to try to find the different jobs that need to be done. You can guide them to pretend that they are starting a new farm, and have to hire farm workers, buy equipment and seeds. See where their imagination goes!
- In their journals, "You are a farmer! Draw your farm. Is it big or small? Is it in the country or the city? What are you growing? Include many details!"

Wrap up:

Take volunteers to show their drawings to the class.



Cesar Chavez

STANDARDS

K.W.3, K.L.5, K.SL.6

OBJECTIVES

- Students learn about the life and work of Cesar Chavez through storytelling and drama

MATERIALS

- A Picture Book of Cesar Chavez by David A. Adler
- A second adult

Preparation:

Bring the story of Cesar Chavez come to life by acting out a scene from a farm. You can play the role of Cesar Chavez, and have the second adult play the role of a farm owner who keeps the kids working hard, without access to water or the restroom. Find a place in the garden where work needs to be done.

Background Information:

Adapted from the California Department of Education:

As a boy growing up in Arizona and California, César Estrada Chávez knew the difficult life of a migrant farm worker. Most of the families, like his own grandfather, were immigrants from Mexico and Central America. They had to move frequently to be where the crops were when they were ready for harvest. The farm owners housed them in miserable migrant camps, paid very low wages, and treated them unfairly.

Chávez devoted his life to improving the conditions of the farm workers, the poor, and the disenfranchised. He formed a union, the United Farm Workers of America (UFW). In 1968, he led a nationwide boycott against California grape owners, urging people not to buy grapes as a protest against unfair treatment of workers. Chávez also led strikes and

peaceful marches to demand laws to protect the farm workers. His nonviolent methods and skill at organizing captured nationwide attention. The grape growers agreed to settle with the union and growers of other crops slowly followed. Through 30 years of dedicated work, César E. Chávez helped to improve wages and living conditions for farm workers and fought for the civil rights of citizens everywhere.

For kindergarteners, it is important to discuss why Chavez was a hero—he stood up for what was right AND he was nonviolent. Did not use physical force, or call names. Even though the story of Chavez’s work may be complicated, his methods can easily be explained to children. Furthermore, since students are starting to see how much work goes into growing food, they can image the plight of overworked, unpaid farm workers.

Procedure:

- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Recite the spring poem.
- “Today we are learning about a very special person, named Cesar Chavez. Like Martin Luther King Jr., there is a holiday named after him, and many schools and businesses are closed in his honor. Can anyone tell me something they know about Cesar Chavez?”
- Read “A Picture Book of Cesar Chavez”, or whichever book you choose, and check for comprehension. What was the problem that Chavez saw? What did he do about it? How did he treat the people around him?
- Prepare students for acting out a scene from the book. Bring them to the place where the garden work needs to be done, and have the “farm owner” tell them to get to work! Have them imagine they’ve been working for hours and hours in the hot sun. Tell them they can’t stop for water or to rest.
- You enter, as Cesar Chavez and tell the students “My name is Cesar Chavez. I understand what you are going through. I used to work on a farm, too. I am going to help you. I am going to talk to the farm owner.”
- You can act out talking to the farm owner, who is very mean in return. After continually being nice, but firm, eventually the farm owner agrees to let the workers rest and have water.
- Repeat several scenes—including a politician writing a law to protect the workers.
- Explain to the students that it was a very slow process, what Cesar Chavez did, but he never gave up.

Wrap up:

Harvest a snack from the garden.



Journaling Prompt: Helping

STANDARDS

K.SL.6

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore.
- As a class, have students name a fruit or vegetable they really love. Ask them to think about how many people help bring them that fruit: from the person who planted the seed to the person who harvested it, to the person who brought it to the store.
- In their journals, “Draw a scene in which someone needs help and you are helping them. How do you help someone? What kinds of words do you use?”

Wrap up:

Share in partners.



Garden Blankets

STANDARDS

K.ESS2.1, K.ESS2.2

OBJECTIVES

- Students re-learn the function of row cloth.
- Students see that soil exposed to the sun dries out
- Students build a little structure from plant material

Preparation:

Be able to guide students to different places in the garden where the soil has been covered, or exposed.

Procedure:

- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Recite spring poem.
- “We have learned a lot this year in Kindergarten gardening. Can you tell me some of the things you’ve learned?”
- Take responses.
- “Something we have learned is that when a tree loses its leaves, the leaves cover the soil and keep it warm. We also learned that we can do something similar, as

gardeners, when we use row cloth. We used row cloth to cover our carrot, turnip and radish seeds. It makes sure the soil stays wet, by not letting the sun dry the soil. In a garden, it can be very important to keep things covered.”

- Send students back into the garden to find examples of leaves covering the soil or plants growing big and shading the soil. Have them compare and contrast the soil under a large plant with the soil that receives direct sunlight.
- Bring students to the row cloth covering your carrots and turnips. Remove the cloth. Have them compare and contrast the soil that stays under the row with soil that is in direct sunlight.
- Gather students in the classroom and take a few observations about the effects of covering the soil.
- “Even though plants need sun to grow, the very hot sun can dry out the soil. The plant also needs water, so we often keep the soil covered.”
- To reinforce the concept, have students build tiny houses for an insect. They can use twigs, leaves, flowers. Encourage them to use plant material that has already fallen off plants. Be clear that the house needs to include a shade structure, to protect them from the hot sun.
- Gather students and their bug houses, have them do show and tell.

Wrap up:

Place bug houses in the garden.

Notes/Feedback:



Journaling Prompt: Carrot Harvest

STANDARDS

K.ESS2.1, K.ESS2.2, K.W.3

MATERIALS

- Journals, pencils, crayons

Procedure:

- Students enter the garden and explore. Have any bugs come to visit the little houses?
- Encourage students to reflect on the weather, and notice how it affects the garden.
- In their journal, "Next week you will harvest carrots! Draw a picture of yourself harvesting. What helped grow these carrots? Include these things in your picture. Label all parts."

Wrap up:

Share in partners.



Harvest and Celebrate!

STANDARDS

K.SL.6, K.L5.c

OBJECTIVES

- Students harvest and taste their vegetables
- Students recognize and thank the parts of the earth that brings food to life!

MATERIALS

- A basket to collect produce
- Cutting board and knife
- Soap for hand-washing
- “The Great Big Enormous Turnip” by Alexei Tolstoy

Preparation:

Know where students will wash hands, and how you will have them seated while you wash and cut vegetables.

Procedure:

- Students enter the garden and explore.
- Gather students, check in about the season and weather.
- Spring poem.
- “Today is our last week of gardening for this year!” Perhaps summarize some of the highlights of the year and big concepts introduced.
- “Today we are going to harvest our carrots and turnips. Can you all describe how we have carrots and turnips in our garden? What were the steps that brought us from seed to plant?”
- Take student responses, be sure they include : Finding a sunny spot, preparing the bed, adding compost, smoothing the soil, making furrows, planting seeds, watering, thinning, weeding, and finally harvesting.

- Read “The Great Big Enormous Turnip” and discuss.
- Bring students to the carrot and turnip patch, and teach students how to harvest from the place where the leaves meet the root.
- Gather students in the classroom, and show them their bounty! Show the root, stems and leaves of the vegetables. Ask “Which we are eating today?” (The root).
- Wash and cut the carrots. Have students wash their hands. Give each student a piece of each, and do a “taste test”. Compare and contrast flavors, and encourage them to describe the tastes. Thank the sun and the soil and the water for growing food for them to eat.
- Congratulate students on a successful year of gardening!

Wrap up:

Wash hands, put vegetable scraps in the compost.

Notes/Feedback:



Last Day Reflection

STANDARDS

K.SL.6

Procedure:

- Students enter garden, and explore.
- Gather students, “This is your last gardening time for the year. The next time you will have gardening, you’ll be in first grade! Spend a little extra time exploring today.”
- What have been the students’ favorite poems, songs, stories or activities this year? Do a students’ choice lesson, allowing them to choose a few of these activities to do for the duration of class.

Wrap up:

Students say goodbye to the garden!