



Exploring the 5 Senses



A Garden-based Curriculum

Developed by The Southern Boone Learning Garden



ABOUT

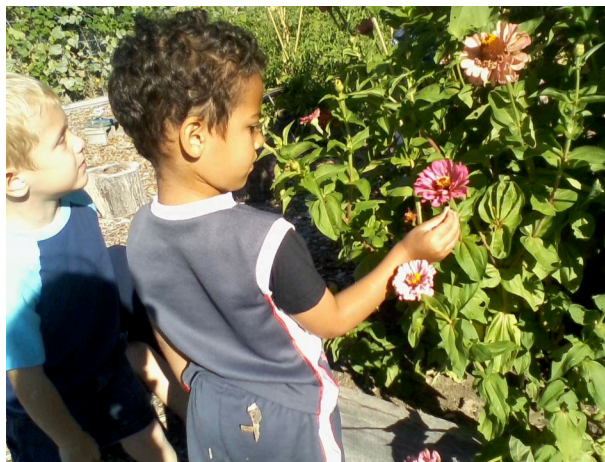
Introduce primary (prek-2nd) students to the garden during the first few weeks of school with the following simple & hands-on lessons. Each lesson focuses on one of the five senses, allowing students to explore each sense in more depth. As an alternative, since time is often limited, the final lesson combines *all* of the senses in one time frame. All of the lessons tie to either Common Core or Next Generation Science standards.

Some lessons offer additional activities, which can be used as a follow-up or extension. Most of them, however, are more appropriate for upper elementary students offering meaningful opportunities for older students to practice sensory awareness in the garden as well.

HOW TO USE THIS UNIT

- Lessons can be done as stand-alone activities or used in the following order: hear, see, touch, smell, & taste. The standards-based lessons are laid out in a template with the specific standards written out. The related additional activities follow.
- A copy of the 5 Senses Worksheet (used throughout the unit) is provided on the last page.

Whether you choose to follow this curriculum from start to finish or pick and choose lessons that fit your classes needs, students will develop each of their senses in an engaging, outdoor setting. A garden naturally peaks curiosity, which is why it acts as a **perfect** place for students to practice such skills.





Listening Ears

Time & Description	30-45 minutes The garden becomes a peaceful place as students turn off their voices and turn on their ears. They will walk around listening for the many different sounds that can be heard throughout the garden.
Objective	To concentrate on the sense of hearing
Teaching Standards	NGSS: Scientists use different ways to study the world. (K-PS2-1, 1-PS4-1) NGSS: Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1) NGSS: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1, 1-LS1-2, 2-PS1-1) CCSS, ELA/Literacy: Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (SL.K.3)
Materials	<ul style="list-style-type: none">❖ 5 Senses Worksheet❖ Clipboards❖ Colored pencils & pencils/pens❖ Optional book: <u>The Other Way to Listen</u> by Bird Baylor
Preparation	<ul style="list-style-type: none">○ Obtain book○ Set out materials○ Print worksheet
Procedure	<ol style="list-style-type: none">1. How do we hear things?2. Move to different areas throughout the garden, pause in silence for 10-15 seconds, and listen. Continue this until interest is lost or until time allows3. Compare and contrast the garden areas highlighting all the different sounds that were heard4. Why do you think it's important to notice sounds in the garden?5. What else might use their sense of hearing in or around the garden?6. What helped us be good listeners?7. Worksheet: next to the 'ear' symbol, students draw one example of something they heard.8. Collect worksheets9. <i>If time allows</i>, read aloud or free garden exploration
Extension, Digging Deeper!	<ul style="list-style-type: none">❖ Journal: with older students, allow them to find a spot in the garden to listen and write a list of anything they hear❖ The two following activities <i>Hear, Hear & Big Ears</i> focus on the sense of hearing with upper elementary students



Hear, Hear Activity

TIME & DESCRIPTION

30-45 minutes. Students try to identify different objects dropped behind a blanket. This can be done inside or outside.

OBJECTIVE

To demonstrate the way students use their senses to make judgments about the world around them.

MATERIALS:

- ❖ Various objects from around the classroom (light, heavy, metal, plastic, etc.)
- ❖ Blanket/sleeping bag/sheet
- ❖ Science journals or scrap paper
- ❖ Writing utensils
- ❖ Clipboards, whiteboard, & marker (if outside)

PREPARATION

- Gather & set out materials

PROCEDURE

1. Can anyone hear anything that is happening outside (or outside of the classroom) right now? Name some sounds that are easy to identify.
2. Ask two volunteers to hold the blanket so the rest of the students cannot see behind it.
3. Tell the class that you are going to drop different objects students cannot see behind it.
4. Pick one object and drop it. Repeat.
5. Ask students to record guesses and raise their hands when they have a possible answer.
6. List guesses on the board. Ask students to give reasons for their guesses. After students have an opportunity to discuss possibilities, identify the object.
7. Repeat with another object.
8. What helped you decide what each object was? How can hearing protect you (or alert you to danger)? What would it be like to live without the sense of hearing?

Inspired and altered from Life Lab's The Growing Classroom by Roberta Jaffee and Gary Appel



BIG Ears

Activity

TIME & DESCRIPTION

30-45 minutes. This activity introduces the concept of animal sound communication. Secret partners wear blindfolds and try to find each other using their sound signals and their sense of hearing.

OBJECTIVE

To understand why the sense of hearing is beneficial for animal survival.

MATERIALS

- ❖ 11 blindfolds
- ❖ Five different identical pairs of noisemakers
- ❖ One noisemaker unlike the others

PREPARATION

Make your own noisemakers by filling small containers with different objects (sand, pebbles, paper clips, etc.), creating two of each type. One noisemaker should be completely different. Label it as 'predator'.

PROCEDURE

1. Imagine you are an animal with poor vision or are active only at night when vision is restricted. What other sense might you rely on to survive? What animals do you need to stay away from? (animals that may eat you-your predators) What animals may help you survive? (animals that are the same species as you)
2. Choose 11 students to participate. The nonparticipating students can form a boundary by making a large circle around the group.
3. The 11 participants put on a blindfold
4. Hand out the paired noisemakers. No one is to know what noisemaker anyone else has.
5. Give one student the unique noisemaker and let this student know that he or she is the predator with a tap on the shoulder.
6. Spread the players over the playing area.
7. The object of the game is for each student to find the animal that makes the same noise as he or she does and then to stay together and avoid being tagged by the predator until the game is over.
8. Students can sound off only when standing still, not while moving.
9. If tagged by the predator, students take off their masks and move to the edge of the circle. If partners find each other before the predator does, they must stay together and continue to avoid the predator until the game is over.
10. The game is over when the leader calls time
11. Allow about five minutes for the game and then choose new participants.
12. What helped you to identify your partner? What helped you to identify the predator? How can hearing be important to animals? Are there any animals you can identify by hearing? What animals can you name that depend on their hearing for survival?

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To See, Or Not to See?

Time & Description	30-45 minutes Students get to use magnifying lenses to take a closer look at all the garden has to offer.
Objective	To focus on using the sense of seeing
Teaching Standards	NGSS: Scientists use different ways to study the world. (K-PS2-1, 1-PS4-1) NGSS: Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1) NGSS: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1, 1-LS1-2, 2-PS1-1) CCSS, ELA/Literacy: Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (SL.K.3)
Materials	<ul style="list-style-type: none">❖ 5 Senses Worksheet❖ Clipboards❖ Colored pencils & pencils/pens❖ Magnifying lenses
Preparation	<ul style="list-style-type: none">○ Set out materials○ Print worksheet
Procedure	<ol style="list-style-type: none">1. How do we see things?2. As a whole group, walk all around the garden, pausing at specific areas giving students the opportunity to share what they see. Encourage them to describe it using as much detail as they can! Continue until interest is lost or until time allows3. Compare and contrast the garden areas highlighting all the different things that were seen4. What helped us to see more clearly?5. Why do you think it's important to observe our surroundings in the garden?6. Students choose their favorite thing seen during the garden walk and take a closer look at it with a magnifying lens7. As they sit in front of whatever it is they are observing, they will draw what they see on the 5 Senses Worksheet next to the 'eye' symbol.8. Collect worksheets
Extension, Digging Deeper!	<ul style="list-style-type: none">❖ Writing: older students can write a poem focusing on all the things they see in the garden❖ The following activity, <i>The Unnature Trail</i>, focuses on the sense of sight with upper elementary students



The “Unnature” Trail

Activity

TIME & DESCRIPTION

30-45 minutes. Students walk through a natural setting and silently observe things that are out of place.

OBJECTIVE

To develop visual awareness.

MATERIALS

- ❖ 15-20 objects (synthetic and natural; big and small; easily observed and easily camouflaged i.e. shoelaces, pinecones, plastic toys, rubber bands)

PREPARATION

- Choose a large section of isolated garden space (preferably with trees), and place 15-20 objects along a path. Place objects from ground level up to 10 ft. high.
- Some should stand out while others should be more difficult to pick out, blending in with the surroundings.
- Keep the number of objects secret.

PROCEDURE

1. Do you think you would notice something if it was out of place? What types of objects would be easy to notice? Which would be difficult?
2. Let's find out how well you can spot things that don't belong in certain settings.
3. Line up the students in the garden near the area where you planted the objects.
4. Have students walk one by one through the area without speaking, counting the number of out-of-place objects they find. It is important for students not to pick up or move any objects and not to give away their findings by pointing, jumping up and down, shouting, and so on to others in the group.
5. What was the most difficult object to see? Why? What was the easiest? Why? What are some things our eyes can tell us about the world around us? Are you more aware of your surroundings when you are in a new place?

Inspired and altered from Life Lab's The Growing Classroom by Roberta Jaffee and Gary Appel



Hands On!

Time & Description	30-45 min. Students will have the opportunity to look for and feel objects in the garden that have unique characteristics from one another.
Objective	To practice the sense of touch
Teaching Standards	<p>NGSS: Scientists use different ways to study the world. (K-PS2-1, 1-PS4-1)</p> <p>NGSS: Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1)</p> <p>NGSS: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1, 1-LS1-2, 2-PS1-1)</p> <p>CCSS, ELA/Literacy: Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (SL.K.3)</p>
Materials	<ul style="list-style-type: none"> ❖ 5 Senses Worksheet ❖ Clipboards ❖ Colored pencils & pencils/pens ❖ One example of each of the following objects (not found in the garden) that feels: rough/smooth, hard/soft, & wet/dry
Preparation	<ul style="list-style-type: none"> ○ Set out materials ○ Print worksheet
Procedure	<ol style="list-style-type: none"> 1. Pass around examples of objects, one at a time, that feel: <ul style="list-style-type: none"> ○ Rough/smooth ○ Hard/soft ○ Wet/dry 2. Don't tell students the words. Ask for <i>them</i> to describe how each feels. 3. Assign pairs of students one of the three opposites to find and feel in the garden. 4. If there is more than five of the object, they can collect and keep it. 5. Free exploration to feel anything, until everyone has found his or her opposite. 6. Worksheet: next to the 'hand' symbol, students draw the opposite that they found and felt. 7. <i>If time allows</i>, students can partner up for a mini guessing game. One student chooses something to feel and the other closes their eyes and attempts to guess what it is.
Extension, Digging Deeper!	<ul style="list-style-type: none"> ❖ Make an art project to demonstrate different textures found throughout the garden! For instance, students can choose things that are smooth or bumpy, collect them, and make a collage out of these natural items.



What's that Smell?

Time & Description	30-45 min. In this interactive lesson, students focus on their sense of smell and create a garden label to place in front of their favorite smell.
Objective	To practice the sense of smell
Teaching Standards	NGSS: Scientists use different ways to study the world. (K-PS2-1, 1-PS4-1) NGSS: Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1) NGSS: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1, 1-LS1-2, 2-PS1-1) CCSS, ELA/Literacy: Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (SL.K.3)
Materials	<ul style="list-style-type: none">❖ 5 Senses Worksheet❖ Clipboards❖ Colored pencils & pencils/pens❖ Popsicle sticks/white plastic plant labels❖ Colorful permanent markers
Preparation	<ul style="list-style-type: none">○ Set out materials○ Print worksheet
Procedure	<ol style="list-style-type: none">1. How do we smell things?2. Gather around a raised bed with herbs or flowers growing (or both!). Let students smell each distinct plant/scent and share descriptions3. Decorate and place “smell me” signs next to their favorite smells4. Why is the sense of smell important for people and animals to use?5. Worksheet: next to the ‘nose’ symbol, students draw a picture of their favorite thing they smelt. They can sit directly in front of their choice to get a better picture!6. <i>If time allows</i>, students can partner up for a mini guessing game. One student chooses something to smell and the other closes their eyes and attempts to guess what it is.
Extension, Digging Deeper!	<ul style="list-style-type: none">❖ With older students, explore compost and all of its stinky smells! Students might be curious as to why it's so smelly. Take time to research this question, the processes occurring, or how to eliminate the smell.



Tasting Time

Time & Description	45 min.-1 hour There's no better way to celebrate the last day of the unit than with a harvest party! Students will harvest, wash, and enjoy a salad they make themselves.
Objective	To harvest, prepare, taste, & describe what produce from the garden tastes like
Teaching Standards	<p>NGSS, LS1.C: All animals need food in order to live and grow. They obtain their food from plants or from other animals. (K-LS1-1)</p> <p>NGSS, LS1.A: Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)</p> <p>NGSS, LS1.A: Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)</p> <p>NGSS, LS1.C: Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion. (5-PS3-1)</p>
Materials	<ul style="list-style-type: none"> ❖ Salad spinner & bowl(s) ❖ Plates, knives, & eating utensils ❖ Produce bags ❖ Salad dressing (balsamic vinaigrette, ranch, etc.) ❖ <u>Tales for Very Picky Eaters</u> by Josh Schneider ❖ 5 Senses Worksheet, colored pencils, & clipboards
Preparation	<ul style="list-style-type: none"> ○ Check out book ○ Buy dressing or ingredients ○ Print worksheet
Procedure	<ol style="list-style-type: none"> 1. How do we taste things? We are going to get to taste a lot of things today, but first we have to harvest them. What does it mean to harvest? 2. Divide into three harvesting groups, (produce available varies depending on season) with at least one adult lead one of the following: <ul style="list-style-type: none"> • Turnips & radishes • Pea pods & broccoli • Lettuce & kale 3. Each student harvests about one of each and places in bag 4. Wash and remove inedible parts 5. Hold up an example of each of the ingredients discussing its nutritional value. 6. In the meantime, another adult puts together the salad. Show the salad all put together mentioning why it's healthy to eat a rainbow of foods. 7. Pass out plates, salad, and dressing 8. Call on students to share words describing what they taste 9. Read aloud as they finish eating 10. Throw uneaten scraps in compost and rinse off dishes 11. <i>If time allows</i>, fill in the 'taste' section on the 5 Senses Worksheet. Otherwise, complete this in the classroom
Extension, Digging Deeper!	<ul style="list-style-type: none"> ❖ Students can partner up for a mini guessing game. One student chooses something to eat and the other closes their eyes and attempts to guess what it is. ❖ Taste test different varieties of apples, comparing & contrasting the tastes ❖ Harvest different vegetables to make another salad. Be sure to highlight why different plants grow during different seasons ❖ Make the salad dressing from scratch. Buttermilk ranch or balsamic vinaigrette are both quick and easy!



Five Senses in One

Time & Description	45 min.-1 hour Students will find things in the garden that they can explore with all five of their senses!
Objective	To develop sensory awareness skills.
Teaching Standards	<p>NGSS: Scientists use different ways to study the world. (K-PS2-1, 1-PS4-1)</p> <p>NGSS: Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1)</p> <p>NGSS: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1, 1-LS1-2, 2-PS1-1)</p> <p>CCSS, ELA/Literacy: Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (SL.K.3)</p>
Materials	<ul style="list-style-type: none"> ❖ 5 Senses Worksheet ❖ Clipboards ❖ Colored pencils, pencils & pens ❖ Fruits or vegetables for tasting
Preparation	<ul style="list-style-type: none"> ○ Print worksheet ○ Harvest vegetables for students to explore with their senses. Leave one or two intact and prepare the rest for sampling.
Procedure	<ol style="list-style-type: none"> 1. Review: point to each sense together (eyes, nose, ears, tongue, hands) and discuss their uses 2. Explain to students that they are going to be taking a “senses” walk through the garden to see how we can use all five of our senses. 3. Hear and see: start with a listening walk encouraging them to whisper all the things they hear to a neighbor. At a halfway point, focus on things they see. 4. Touch, taste, and smell: continue walking together stopping at various raised beds focusing on each sense. Pass around vegetables to feel, smell, and taste. Encourage them to touch leaves, smell flowers, describe the taste, etc. depending on the bed. 5. Worksheet: complete the five senses worksheet by drawing and/or writing examples of things they observed with each sense.
Extension, Digging Deeper!	<ul style="list-style-type: none"> ❖ Mathematics: measure the length of plants seen and create a bar graph ❖ Hypothesize: why certain leaves or other parts of the plants felt rough and others smooth ❖ Journal: write a short poem describing foods tasted ❖ Compare and contrast: record any patterns noticed and categorize them

5 Senses in the Garden

See:



Hear:



Touch:



Taste:



Smell:

