Exploring the Five Senses Through Nature

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Target Grade:  Kindergarten
Subjects:  Science and ELA

Unit Overview
This unit will introduce and address each of the five senses. It is intended to help students identify their five senses and utilize them while exploring the outdoors. My goal is that students become more in tune with each of the five senses and aware of their surroundings, especially in nature, and therefore become more observant and curious. I also want to get children excited about science by exposing them to the outdoors and the beauty of nature! I want to instill qualities in them so that they learn to think about their environment and take care of it. This unit connects to the curriculum in my school, as we already teach about the five senses.

Sources Consulted


Learning Objectives

Students will be able to:

- Identify the five senses (see, hear, smell, taste, and touch) by watching a video, listening to stories, and doing several activities related to nature.
- Use their five senses by completing activities related to nature throughout the unit.
- Identify some birds by listening for their song in a book and then again outside.
- Take care of the environment by completing the activity entitled, “my hands are for . . .”

State Grade Level Content Expectations Addressed

The following science GLCE’s relate to all lessons in this unit.

Science

SCIENCE PROCESSES Inquiry Process

K-7 Standard S.IP: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems
S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
S.IP.00.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.00.12 Generate questions based on observations.

English Language Arts

- The following writing GLCE’s relate to the lesson about our sense of touch. The children will brainstorm and create a page for a class book about one way we can use our hands to help the environment.

Writing—Writing Genre

W.GN.00.03 Write a brief informational piece such as a page for a class book using drawings, words, word-like clusters, and/or sentences.
Writing Process
W.PR.00.02 Brainstorm to generate and structure ideas for narrative or informational writing.

- The following listening and viewing GLCE’s relate to all lessons in this unit.

Listening and Viewing-Conventions
L-CN.00.01 Understand and follow one and two-step directions.
L-CN.00.03 Listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings; listen to each other, interact, and respond appropriately.

- The following reading GLCE’s relate to the lesson about our sense of hearing.
  The children will be practicing beginning and ending sounds when listening and responding to different bird songs.

Reading-Word Recognition and Word Study
Phonics
R.WS.00.04 Use grapho-phonemic (letter-sound) cues to recognize a few one-syllable words when presented completely out of context. Begin to associate letters and sounds, particularly initial and final consonants.

Materials
Day 1
Drawing paper
Crayons and/or colored pencils
Trees of Michigan Field Guide

Day 2
Bird Songs: 250 North American Birds in Song
An object to pass for circle time

Day 3
Project Learning Tree: PreK-8 Environmental Education Activity Guide

The Cat in the Hat Comes Back
Gloves for everyone in the class (optional)
Large trash bag
An object to pass for circle time

Day 4
Project Learning Tree: PreK-8 Environmental Education Activity Guide
Copies of “Veggie Plate”
Overhead transparency of “Veggie Plate”
Overhead projector
Crayons
An object to pass for circle time
Veggies to taste (optional)

Day 5
Look What I Did with a Leaf!
Leaves
A variety of art supplies (scissors, glue, construction paper, etc.)
Drawing paper
Crayons
An object to pass for circle time

Day 6
Copies of writing prompt
Markers, crayons, colored pencils, pencils

Day 7
None

Classroom and Field Activities

Day 1
INTRODUCE
Introduce the five senses by watching a video The Fabulous Five: Our Senses. When the video is done, see how much the children remember. Ask them what the five senses are and review them together. While reviewing, write them on the board and draw a picture next to each sense, since most children can’t read yet. For example, draw an eye next to sight, an ear next to hearing, a nose next to smell, a mouth or tongue next to taste, and a hand next to touch.

TEACH
Tell them we are going to focus on one sense each day this week. Today we’ll explore our sense of sight. Ask what we use to see. Hopefully they’ll know that we use our eyes to see. Then ask them all to close their eyes. Ask them a few questions when their eyes are still closed. You might ask them what they see. You might also ask them what it feels like and if they could imagine life without sight. They may be surprised to learn that there are people who are completely blind and rely strongly on other senses to get around and live their everyday lives.

At this time, I would help them to understand by sharing a personal story. You may have a story to share as well. My grandmother was blind and she taught herself many tricks for how to do daily activities that we all do. I would give them specific examples. I’ve shared this with my previous classes and they always seem very interested and want to learn more.

PRACTICE
Now that they have a good feeling for sight and what it means, we would begin an activity. Give each child a blank piece of drawing paper. Ask them to fold it in half. On the left side they’ll draw a picture of a leaf, no specific kind. There will be children who say they don’t know how and they’ll ask for help. I would tell them to draw whatever comes to mind when they hear the word “leaf.” Encourage them by saying that everyone’s will look different and there are no wrong answers!
EXPLORE
Take the children on a short nature walk. Before leaving, tell them to be looking at leaves while we're outside. Ask them what sense we'll be using while looking at leaves. They should say they're using their sense of sight, which is our focus for the day. While on the walk, observe and take notes on students' behavior. This will be great insight on students' prior knowledge and familiarity with nature.

MORE PRACTICE
As soon as you get back from the walk, ask students to draw a leaf again (on the right side of the folded paper). Tell them to add details based on what they saw on the walk. Remind them that their leaf on the right may look a lot different than their leaf on the left. Ask them why they think this is. Then discuss how important details are and how our sense of sight helped us to bring our drawing to life.

REVIEW AND SHARE TIME
As a wrap-up for the day, ask for volunteers to share their drawings with the class. This would be similar to Show and Tell. They could explain how their two leaves are the same and then how they're different. Then other students could ask questions, if they have any. Throughout this lesson, I would be sure to emphasize that there are several different kinds of leaves and trees. I would show them pictures from the Trees of Michigan Field Guide. I would also show them many examples of trees and leaves while we're on the nature walk.

Day 2
REVIEW AND INTRODUCE
Review the five senses using our hand for a guide. (Hold up one finger for each sense. The 5 fingers will help them to remember that we have 5 senses.) Today we'll explore our sense of hearing. Ask them what we use to hear. Discuss that our ears help us to hear sounds. Tell the children to close their eyes and listen for sounds they hear. Remind them that the reason they are closing their eyes is so they rely only on their sense of hearing for this activity. After a few minutes, ask
what they hear and where they think it’s coming from. You may ask them to point in the direction of where it's coming from. Then ask them which sounds were quiet and which ones were loud. Remind them that we depend on our ears for listening in many situations.

TEACH
Tell them that today we’re going to use our sense of hearing to listen to birds. Explain how birds sing songs and give out calls to communicate with each other. Explain that they will first listen to a book and get to hear bird songs of birds that are in this area. The birds they’ll learn about and hear in the book will most likely be the birds they’ll hear singing when we go on a nature walk.

Read a few pages from Bird Songs-250 North American Birds in Song. Each page includes a picture, description, and many more details about a specific bird. There is also a recording of each bird in the book. So, after you’re done reading each page, press the play button to hear that bird’s song. Before reading the book to the kids, preread the book and choose birds to study that you think are in your area. Try to focus on two or three birds so the kids can really learn the songs well and they don’t get confused.

PRACTICE
After hearing two or three bird songs from the book, play a game. The directions are simple. Tell children that they will give a thumbs-up when they hear a specific song (whichever one you choose). During the game, they’ll keep their eyes closed so that they aren’t depending on someone else for the answer. Play one of the bird songs from the book that they just learned. If they hear the bird that you told them to listen for, they’ll give a thumbs-up. If they hear a different bird, they’ll do nothing and just continue listening. You can also do a variation of the game, which includes a phonics aspect. Ask them to give a thumbs-up for the bird that begins with a specific sound. Do this with a few different sounds.

EXPLORE
Now that the children have a good idea of what birds to be listening for, take them on a nature walk. Remind them how important it is to be QUIET when listening for birds and doing bird watching. You may want to call it a game (since anytime you use the word game, they think it’s fun). Tell them the goal of the game is to be as quiet as possible, which means no talking and quiet feet. Explain why they need to be quiet, that they will not hear the birds if they’re loud. Emphasize that they’ll be using their sense of hearing by listening to birds with their ears. However, they should also use their sense of sight to see what the birds look like and if they’re similar to the ones in the book we read.

MORE PRACTICE
While on the nature walk, play the game that you played in the classroom again. Ask the children to close their eyes and give a thumbs-up when they hear a specific bird. This will be more practice for enhancing their listening skills. It will also help them to identify specific birds and hopefully get them excited about nature and being outdoors!

REVIEW AND SHARE TIME
When you arrive back to the classroom, ask the children to sit in a circle on the carpet. Pass around an object (maybe something from outside, like a rock, leaf, or stick). Tell everyone that we’re going to have “share time.” This means everyone will get a turn to share something with the class about the nature walk. Explain that when you have the object, it is your turn to talk and everyone else’s turn to listen. They can share something that they saw or heard while outside. Maybe they have a favorite bird they’d like to talk about. Or maybe they’d like to share something they learned during the day. It can be anything related to the lesson today. The goal is to get them thinking about nature and to enhance speaking and listening skills at the same time.

Day 3
REVIEW AND INTRODUCE
Review the five senses using our hand for a guide, as we did yesterday. Today we’ll explore our sense of smell. Ask the children what we use to smell. Brainstorm
different things that we smell. Ask if they smell anything right now and if they have a favorite and/or least favorite smell.

TEACH
Do activity #36 Part B, called “Cat with an Attitude” from Project Learning Tree. Use the section that’s a variation for younger students. This activity will ask you to read the story The Cat in the Hat Comes Back, which is a fable about pollution. Discuss what pollution is and ask questions throughout the story. Discuss types of pollution that you can smell. Remember to focus on our sense of smell throughout the day. After everyone understands what pollution is, ask them what causes pollution and what we can do to reduce it, clean it, or prevent it.

PRACTICE AND EXPLORE
The next part of the activity #36 asks you to give each child a pair of rubber gloves. Explain to them that we’re going to clean up pollution at our school (both inside and outside). Tell them we’ll be looking for litter, which is one kind of pollution. Be sure to explain what littering is. Take them on a walk and ask them to pick up litter and put it all into a large trash bag.

MORE PRACTICE
The next part of the activity #36 is optional. If you have extra time or you desire to teach a mini lesson on recycling, this would be a great extension of the previous activities.

After you’ve collected the litter from in and around the school, sort it into piles together. Hold up one object at a time and ask if they think it should be reused, recycled, or thrown away. Discuss why some things are reused and recycled, while others are thrown away. Ask them what they think certain items are made into when they’re recycled.

REVIEW AND SHARE TIME
Sit in a circle and pass around an object for share time, as we did yesterday. Ask them to share what they found and if they used their sense of smell when looking
for litter. What other senses did they use? Maybe they’ll want to share something they learned about pollution and/or what they can do to prevent it.

**Day 4**

**REVIEW AND INTRODUCE**

Review the five senses using our hand for a guide, as we did on previous days. Today we’ll explore our sense of taste. Ask the children what we use to taste food. Explain that our tongue has many taste buds, which help us to taste different foods that are sweet, sour, and bitter. Ask them what their favorite and least favorite food and drink are.

**TEACH**

Do activity #16 Part A, called “Pass the Plants, Please” from Project Learning Tree. This activity will ask you to brainstorm a list of foods that come from plants. Remind them that some foods are whole parts of plants, such as potatoes, or made from plants, such as French fries. The directions say to write their ideas on the board, but it may be helpful to draw pictures of the foods instead. Ask for volunteers to draw the pictures.

It’s important to remember the next part of the activity #16, which says to point out that many plant foods are not obvious. For example, tortilla chips are made from ground corn and bread is made from wheat or other grains. The children may be surprised to learn that pizza is made mostly from plants. Give several examples and then ask the children for other examples and add them to the picture list.

**PRACTICE**

The next part of the activity #16 asks you to study the list together. Take the first couple foods on the list and tell them what plant parts they come from. Explain how you came to your conclusion. Then ask them to try to do the same thing with the rest of the foods.

**MORE PRACTICE**
The final part of the activity #16 asks you to give students copies of the “Veggie Plate,” which is included in the activity. Do this worksheet together. The directions in the book say to write the appropriate plant part on the blank line below the word identifying the food. To simplify things, I would point to a vegetable on the plate (using an overhead projector so that everyone can see), and ask them to identify the vegetable. Then I’d ask them to find that same vegetable on their sheet and color that vegetable. You could also ask them to point to the veggie that begins with a certain sound. Remind them to think about what color the veggies actually are and to use that color. Ask them to circle their favorite veggie on the plate.

EXPLORE
If you have a school garden, take the children there. Ask them to identify what they see. Ask them which plants are safe to taste and remind them which are not for tasting (even if animals eat them). Depending on what’s in your garden, pick (or have the children pick) something to taste. This of course would require adult supervision. Tell them they are not allowed to pick anything without your permission. Decide when and where you’d like them to eat what they’ve picked.

If you don’t have a school garden, bring in something for them to taste. You may want to have a mini lesson on the importance of eating healthy. Of course include some healthy food choices like fruits and vegetables and ask them where those foods come from. Then ask the children for examples of healthy foods and drinks.

REVIEW AND SHARE TIME
Sit in a circle and pass around an object, as we did on previous days. Ask the children to share one food that is made from plants. It can be one of their favorite foods or just one that they learned about while brainstorming today. They may also want to share something that they learned about our sense of taste.

Day 5
REVIEW AND INTRODUCE
Review the five senses using our hand for a guide, as we did on previous days. Today we’ll explore our sense of touch. Ask the children what we use to touch. Brainstorm ways that we use our hands, and then ask them how we use our hands when we’re exploring outside.

TEACH
Read the story, Look What I Did With a Leaf! The story shows different art projects the children can do using leaves. Tell children they will get to make something using a leaf that they will pick outside.

PRACTICE AND EXPLORE
Take the children on a short nature walk to pick leaves. Explain to them that they should not disturb nature by picking leaves off of trees. They should only pick leaves from the ground. Decide what kind of limit you’re going to give them. I would allow them to pick at least two leaves, but they are allowed to pick up to five. It depends how many leaves are available and also what kind of art project they're going to do.

When you get back to the classroom, do some quick brainstorming and ask the kids if they thought of an idea for their project yet. If they're having trouble, remind them about ideas in the book and encourage them to come up with their own idea if they'd like to. Then set out a variety of art supplies and allow the children to get started on their leaf project. They may do more than one project if they've picked enough leaves.

MORE PRACTICE
When they’re finished with their leaf project(s), they can use their other leaves that they’ve picked for leaf rubbings. Set the leaf on a smooth surface (vein side up) and then cover it with a piece of white drawing paper. Gently rub a dark-colored crayon sideways back and forth on the paper. Sometimes it’s a good idea to tape the leaf to the table or have another student hold the paper and leaf down so it’s easier to color. Keep rubbing the crayon across the paper until you see the entire leaf appear.
REVIEW AND SHARE TIME
Sit in a circle and pass around an object (maybe a leaf) like we did all week. Ask the children to show the class what they made out of their leaf. They should explain what it is, how they made it, and what it looks and feels like. Does it feel rough, prickly, or smooth? Where did the materials come from that they made their project out of? Remind them they were using their sense of touch by using their hands. Ask what other senses they were using while making the project. They may also show their leaf rubbings, if they did any.

Day 6
END OF THE UNIT PROJECT
Do a writing prompt called, “My hands are for . . .” Each child will complete the sentence by thinking of something that they do with their hands. Relate the project to our sense of touch, which was the focus of the day yesterday. Ask them to think of something they could do to take care of the environment. Remind them it could be something done at home or at school.

Brainstorm ideas together before doing the writing prompt. Some ideas may be: pick up garbage on the playground at recess, recycle popcans, reuse one environmentally-friendly waterbottle instead of using many plastic ones, reuse paper (make art projects out of scraps, write on both sides of paper when making books, etc.), save fruit and vegetable peelings and scraps and create a composting bin, water plants at home or offer to water a neighbor’s, learn how to do gardening. These are only a few examples of taking care of the environment. There are many more, of course.

To create the writing prompt, just type or write, “My hands are for . . .” at the top of a large white piece of paper. Don’t forget to include lines for the name and date as well as extra lines for completing the sentence. Then make copies as
needed. Give each child a copy and ask them to draw a picture first and then finish the sentence. They'll most likely need help with completing the sentence. Encourage them to write two or three sentences for a challenge.

Tell the children to do their best work because their page will be part of a class book. After everyone is done, ask each child to read his/her page in the book to the class. Storytime would be a good time to do this.

An additional activity either for in the classroom or assigned as “Home Fun” is as follows. Ask the children to think about the page they made for the class book. When they go home, they should do what their page says. For example, if their page read, “My hands are for picking up garbage,” they should go home and pick up any garbage on the ground. This is great for getting them involved and proactive.

**Day 7**
**EXPLORE AND REVIEW**
Review all five senses and go on a nature walk again. Tell children you want them to really try to use good listening eyes and ears. Tell them to walk quietly and try to use all five of their senses while observing. Pay close attention to the students and see if they act any differently than on the first day of the lesson. This day will be very important in determining if they need more instruction and how much will be necessary.

**Unit Assessments**
In kindergarten, the only time we assess for grades is when preparing for report cards. Most activities and assignments are exploratory and are done as a whole group. A lot of assessing is purely teacher observations and asking questions to check for understanding. Our daily goal is that children follow directions and participate by completing the task they were asked to do. If they get something wrong, we just review the concept and try again together. They're taught to raise their hand and ask questions if they don't understand something.
The following assessments are embedded throughout the unit. Each one is explained on the day that it’s introduced.

- Leaf drawings
- Teacher observations during nature walk and throughout the unit
- Asking the children questions throughout the unit (verbal participation)
- Show and Tell
- Thumbs-up Game
- Brainstorming as a whole group
- Checking for comprehension during storytime by asking questions
- Cleaning up pollution around the school
- Veggie Plate worksheet
- Leaf projects and leaf rubbings
- Writing prompt, “My hands are for . . .”
- Home fun assignment (that goes with the writing prompt)
- Circle time (reviewing and sharing throughout the unit)