



Science Essential Standards:

- 3.L.2.1, 3.L.2.2, 3.L.2.3, 3.L.2.4 (plants)
- 4.L.1.1, 4.L.1.2, 4.L.1.3, 4.L.1.4 (animal adaptations)
- 5.L.2.1, 5.L.2.2, 5.L.2.3 (ecosystems)

Time:

45 minutes

Audience:

3rd, 4th, or 5th grade

Learning Objective:

To observe nature by using the senses of sight, touch, smell, and sound.

Materials:

- Silent Hike cards
- question cards
- timer

Optional Materials:

Nature journals, pencils

Vocabulary:

hearing, mindfulness, sight, silent, smell, taste, touch

Preparation:

- ✓ Cut out and laminate the silent hike cards and question cards. You may choose to make 2 sets of the question cards to have a full set for the beginning and end of the hike.
- ✓ Map out the area that students will be walking along. Familiarize yourself with the area and check for poison ivy.
- ✓ Space out the Silent Hike cards along the trail. Place the cards so that the instruction can be completed in that area.
- ✓ Have one chaperone wait at the end of the hike to meet students as they finish. Have one chaperone at the beginning of the hike to tell students to start their hike. Instruct the chaperone who will be the last person taking the hike to collect the silent hike cards as they walk.

Background:

A silent hike gives students a different experience of being in nature. This activity helps students focus on the world around them using their senses. The five senses are **sight, touch, hearing, smell, and taste**. By singling out each of these senses, students can learn from their experience outdoors in a new way.

The sense of **sight** is used to be able to visualize the world around us. Most students will be familiar with this sense. The sense of **touch** allows us to detect pain, temperature, and pressure. This sense can help detect and prevent physical harm. Our sense of **hearing** is accomplished by the ears detecting vibrations that are transmitted to the brain. The brain then can interpret the sound. The sense of **smell** uses receptors in the nose to detect and recognize odors. Some smells may be familiar, and the brain decides if it is a good or bad smell. The sense of **taste** uses taste buds on the tongue to detect if something is salty, sour, sweet, or bitter. Taste buds allow the body to detect if something is poisonous. Students should not use their sense of taste in nature unless a knowledgeable adult directs them to do so.

Each individual person has a different relationship with their five senses. Some people may not be able to utilize each of the five senses. In many cases, they may have a certain sense heightened over the other.

Exercises like this **silent** hike can also benefit mental health. Being outside has been shown to improve mood, reduce aggression, and reduce stress. This type of activity requires students to slow down the pace of their day, which is likely something they do not do frequently. By being silent and alone, students are more likely to practice mindfulness, or being fully present to what they are doing and to the world around them.

Instructions:

1. Greet the students and explain the **learning objective** of this activity. Ask the students if they have had any experience hiking or walking through the woods before. Ask if any of them have ever participated in a silent activity. Ask students why being silent in nature might give them a different experience.
2. Ask students what the 5 senses are. They are touch, taste, sight, smell, and hearing.
3. Ask how them to they might use each of their senses today. Explain to students that they should never use their sense of taste in nature unless directly told to do so by a knowledgeable adult.
4. Tell students that today they will be using their remaining four senses.
 - a. **Touch:** to feel different parts of nature such as a rock.
 - b. **Sight:** to observe what they see on the hike.
 - c. **Smell:** to smell what scents they might encounter on their hike.
 - d. **Hearing:** to listen to the sounds around them.
5. Tell them that today they will be participating in a silent hike. Ask students what a silent hike means to them.
6. Give students the instructions for participating in the silent hike.
 - a. Tell students that as they travel quietly along the path, they will encounter cards. They should read each card and perform the action before continuing their hike.
 - b. Show students an example card that is not used on the hike. Have the students do what the card says as a group where they are. If they are noisy doing the example card, reiterate it is a silent activity and have them repeat what the card says without making a sound.
7. On this hike, students will be spaced out, so they have time alone on their hike.
 - a. Tell students that they should walk slowly so they do not catch up to the person in front of them. Have students **model** to you how they walk slowly.
 - b. Explain to students that they may be able to see the student in front of them but should not be walking with them or talking to them. Model to students how far apart they should be.
 - c. Remind them that this is a silent hike.
8. Remind students that they should always remain on the path during the hike. Ask students if they know why this is important. Tell them that they could get lost wandering off the path or disrupt the ecosystem.
9. Send students off on the hike one by one. Use a timer to space students 30 seconds apart.
10. Give the chaperone at the beginning and end of the hike a full or half set of question cards. Have students discuss the question cards before and after their hike while they are waiting.
 - a. Ask students to turn and talk to the students closest to them in a whisper voice. After a few minutes, have them trade cards with another group.
 - b. Remind students to stay on the path while waiting for their turn.
 - c. Use the corresponding topic or grade level questions for your group.
 - d. As time allows, discuss a few of these questions at the end of the hike as a whole group.
11. After all students have finished the hike bring them all together. Ask students:
 - a. What they saw, smelled, touched, and heard during their hike.
 - b. How this might be different than what they sensed inside a classroom.
 - c. How being silent on the hike changed their experience.



Crumble Cap Mushroom



Tiger Swallowtail

Opportunities for Extended Learning

- Have students answer the grade level questions as **nature journaling prompts** before and after the hike.
 - The questions can be divided so that they are answering different questions at the beginning and end of the hike.
 - For questions that ask students to look for plants and animals, have them draw and label what they find in their journals.
 - If students are answering a full set of questions at the beginning and end of the hike, you might choose to have them leave room to answer the same question from the two locations together on the paper.



Christmas Fern

Behavior & Materials Management Tips:

- ◆ Explain what poison ivy looks like to students. Leaves of three, let it be. Hairy vine, no friend of mine. Remind students to stay on the path and away from poison ivy.
- ◆ **Ask students to recite the instructions before leaving on their hike.** They should walk slowly, not talk, and remain on the path during the hike.
- ◆ Have a chaperone at the beginning and end of the hike. If possible, have a chaperone at the middle of the hike to watch students.

References & More Information:

Kinuthia, Samuel. (2017, December 5). What are the Five Senses? Retrieved from <https://www.worldatlas.com/articles/what-are-the-five-senses.html>

Mindful Staff. (2014, October 8). What is Mindfulness? Retrieved from <https://www.mindful.org/what-is-mindfulness/>

Credits:

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Header photo by Lauren Greene at Kerr Lake Recreation Area on July 23, 2019.

Adapted from *Silent Hike* by Lauren Greene, UNC IE and Sean Higgins, North Carolina State Parks.

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Questions for 3rd Grade Students

<p>Choose a plant near you. What plant parts can you identify? Describe the function of each part.</p> <p style="text-align: right;">Plants</p>	<p>What stages of a plant's life cycle do you see?</p> <p style="text-align: right;">Plants</p>
<p>Can you find any seeds or seed holders?</p> <p style="text-align: right;">Plants</p>	<p>What environmental conditions are found in this habitat that might be helping these plants survive?</p> <p style="text-align: right;">Plants</p>
<p>What characteristics and textures of the soil can you identify?</p> <p style="text-align: right;">Plants</p>	<p>How is the soil different in the areas that you can see?</p> <p style="text-align: right;">Plants</p>
<p>Can you find any pollinators? Can you find what they might pollinate?</p> <p style="text-align: right;">Plants</p>	<p>Compare two plants. Are the environmental conditions the same? Are they in the same life cycle stage?</p> <p style="text-align: right;">Plants</p>

Questions for 4th Grade Students

<p>What animals might be well adapted to living in this habitat?</p> <p style="text-align: right;">Animal Adaptations</p>	<p>What can you do to help preserve this habitat?</p> <p style="text-align: right;">Animal Adaptations</p>
<p>If this area flooded, how might it affect the plants and animals that live here?</p> <p style="text-align: right;">Animal Adaptations</p>	<p>Listen to the animals around you. From which directions are the sounds coming? What are some possible reasons why they are making noise?</p> <p style="text-align: right;">Animal Adaptations</p>
<p>What human impacts to this habitat do you see?</p> <p style="text-align: right;">Animal Adaptations</p>	<p>Describe the habitat around you.</p> <p style="text-align: right;">Animal Adaptations</p>
<p>What animals or signs of animals do you see?</p> <p style="text-align: right;">Animal Adaptations</p>	<p>What is an adaptation you have or would need to live in this habitat?</p> <p style="text-align: right;">Animal Adaptations</p>

Questions for 5th Grade Students

<p>What type of ecosystem are we in now? How do you know?</p> <p>Ecosystems</p>	<p>Which ecosystems have you observed at this state park? What evidence did you see to help you identify the types of ecosystems?</p> <p>Ecosystems</p>
<p>Describe a food chain that might exist here.</p> <p>Ecosystems</p>	<p>Can you spot a producer? A consumer? A decomposer?</p> <p>Ecosystems</p>
<p>What evidence of consumers do you see?</p> <p>Ecosystems</p>	<p>Can you find an example of organisms with interconnected relationships?</p> <p>Ecosystems</p>
<p>How are you interconnected with this ecosystem?</p> <p>Ecosystems</p>	<p>How might the ecosystem change if one species of predators was removed?</p> <p>Ecosystems</p>