

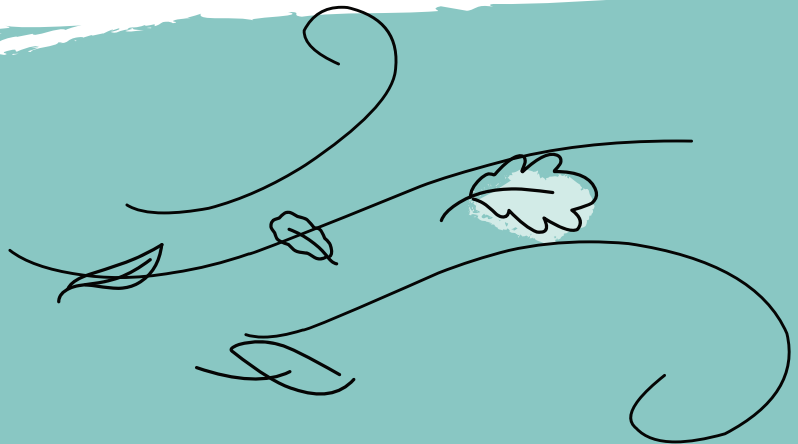
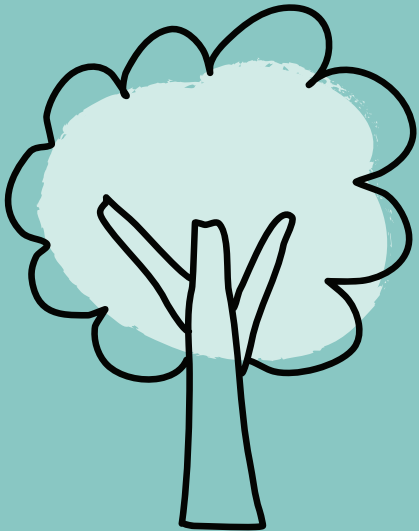
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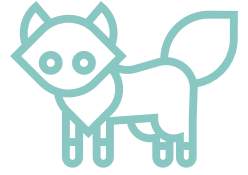
Atlantic Center for the Arts
New Smyrna Beach, Florida



Y O U N G
(((SOUND)))
S E E K E R S

Listen-Pair-Share





Listen-Pair-Share

Objective:

Participants will learn to perceive layers and distinguish components of the soundscape around them, while focusing attention completely on the task of listening and consider the importance of increased awareness of the sounds around them. Then they will group sounds into categories based on similarities and communicate their perception and memories of sound in small groups.

Ages: 10+

Subject: Science - Environmental



Duration: 45 Minutes

Group Size: 10-20

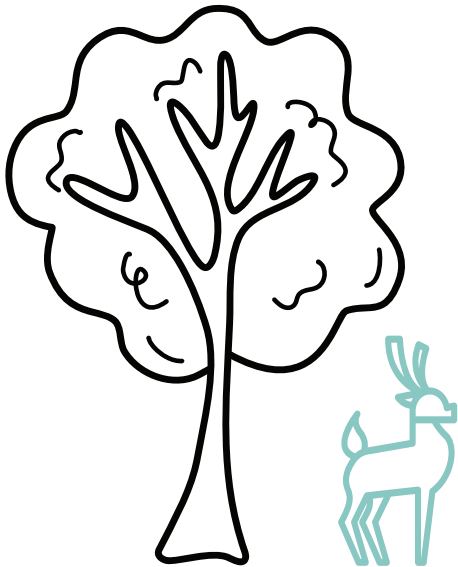
Setting: Outdoors

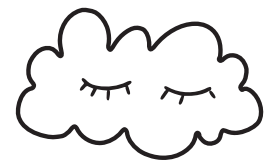


Fun Fact

There is a tribe in South Sudan called the Mabaan Tribe who are known as a quiet and peaceful people. They don't use guns or drums, unlike neighboring tribes, and are famous for their ability to listen. They live in such quiet conditions that they can hear each other whispering across a baseball field!

source: Schola Affectus





Overview:

When first learning to talk about sound, participants often need structured activities to help direct their attention. In this activity, participants will develop their active listening skills and their ability to isolate elements of the soundscape around them. This process of "peeling away layers of sound" is compared to the layers of an onion.

The emphasis in the activity is on peeling away human-caused sounds to reveal the sounds of the natural world. The same emphasis should work in the present activity, but our adaptation is designed to be modular enough so that leaders can address a variety of listening topics across iterations. Several suggested topics are provided in the procedure that follows the listening step, but feel free to develop your own.

When listening to the soundscape, be aware that active listening is a skill that requires practice. The first time a group of participants complete this task, it is best to give a minimal amount of direction about what to listen for beforehand and instead just focus on how to properly listen.

Think-Pair-Share is a process commonly used to promote active learning. The small group discussions that happen at the "pairing" stage ensure that every person present has a chance to articulate their thoughts to at least one person. This then enriches the "sharing" stage because individuals have had a chance to formulate their thoughts and test them verbally before presenting them to the full group, saving them from possible embarrassment.



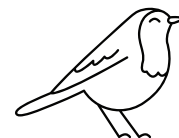
Important Vocabulary:

- Sound** - Vibrations that travel through the air or another medium and can be heard when they reach a person's or animal's ear. Sound produced by continuous and regular vibrations, as opposed to noise.
- Noise** - Noise is unwanted sound. The difference between sound and noise depends upon the listener and the circumstances.
- Soundscape** - The sounds heard in a particular location, considered as a whole.
- Intrinsic Sounds** - Cultural, historic and natural sounds that belong within the experience of a location.
- Extrinsic Sounds** - Sounds not forming an essential part of the experience of a location.
- Biophony** - The sounds of plants and animals, such as frogs croaking or birds chirping.
- Geophony** - The sounds of the earth, such as wind blowing or waves crashing.
- Anthropophony** - The sounds created by humans and machines, such as car horns or airplanes.



Fun Fact

What is the difference between hearing and listening?
Hearing is the function or power of perceiving a sound.
Listening is the ability to perceive with thoughtful attention.
Listening requires focus, meaning it's active. Hearing is passive because it is a mechanical function of the body. Listening allows understanding to happen.
source: Keywords in Sound



Logistics:

When choosing a location, think about the size of the group and how you will ask people to arrange themselves at each step. During the listening phase, people may wish to spread out or sit down. During the pairing phase, people will need to be close enough to have a conversation with their partner. During the sharing step, it works best when the full group can form a circle, either seated or standing. This physical formation reinforces that everyone has something to offer the group. Be sure to choose a location that can accommodate these various spatial arrangements.

Suggestions to prepare for group discussions:

To determine who goes first when sharing (Step C), there are several suggestions. Doing this ensures that everyone has an opportunity to share, not the same people volunteering first every time.

- The group whose birthdays are the closest (or farthest) on the calendar.
- The group with the biggest (or smallest) difference in age.
- The group with everyone (or no one) wearing hats.
- The person with the most (or fewest) letters in their first name.
- The person who was born the farthest away from (or closest to) the current location.
- The person with the most siblings or pets.



Procedures:

Step A) Listen

Spread out so participants have space between themselves but remain close enough that they can easily cluster back together when asked. Some people may want to sit while others remain standing. Allow participants to get comfortable.

Say: We are going to make ourselves as silent as possible so that we can spend a short amount of time actively listening to the soundscape around the group. The soundscape includes all the sounds in this location, like a landscape of sound. Minimize movement, silence phones and watches, and breathe comfortably. How long do you think you can silently listen to the soundscape? We are going to listen for (30) (60) seconds. I will start the timer when we begin, and I will let you know when the time is up. You might want to close your eyes to help you focus your attention on the soundscape even more. You can sit or stand, whichever is more comfortable for you. Is everyone comfortable and ready? Let's give our full attention to the soundscape. (Start the timer)

At the end of either 30 or 60 seconds, gently regain the student's attention. Do not make any sudden or loud sounds.

Step B) Pair

Have participants select someone nearby who will be their partner. Do not have groups larger than three participants.

Ask:

- What individual sounds did you hear?
- What individual sounds did you like/dislike?
- What was the loudest/quietest sound that you heard?
- What was the closest/farthest sound that you heard?
- If this is the second time listening, what did you hear that was new?

Give participants five minutes to talk with their partners. Set the times and give a verbal prompt at the halfway point to ensure equal time for each person to share.

Step C) Share

Group participants together in close proximity by forming a single circle with the leader in the center. Each group will nominate a spokesperson and share their answers to the questions. Use suggestions for determining who goes first listed above in the logistics section. Remind participants that there are no wrong answers. Refrain from judging the quality of responses.

Topics of discussion to extend the activity:

- Discuss the differences between human sounds and natural sounds. Ask participants to ignore any sound that is produced by humans and only focus on the natural sounds.
- Introduce the three categories of sounds proposed by Dr. Bernie Krause: biophony, geophony, and anthropophony. Ask participants to listen for at least one example of each while they listen to the soundscape.
- Introduce the difference between sound and noise (unwanted sound). Ask participants to consider whether each specific sound they hear is a sound or a noise.
- Introduce the concept of intrinsic and extrinsic sounds for the area. Ask participants to listen for examples of intrinsic sounds that help define this area, and to identify extrinsic sounds that might interfere with their listening.

Final Discussion:

You may engage participants in further conversation by using the following discussion prompts:

Ask:

- What can we understand about this area after listening to the soundscape?
- Were there any individual sounds that your group could not identify the source? How did you talk about the sound without knowing its source? Were you able to point out certain features?
- How difficult was it to ignore human sounds and pay attention to natural sounds? Why do you think human sounds dominate our attention so easily?
- Imagine you are one of the birds found in this area. How might features in the local geophony and anthropophony affect your communication with other birds? How might you adapt to improve communication?
- Did your group disagree with another group's classification of a specific sound as noise? Why did your group reach a different conclusion?



Resources:

James L. Cooper and Pamela Robinson " Getting Started: Informa Small-Group Strategies in large Classes," New Directions for Teaching and Learning 2000, no. 81 (2000): 17-24, <https://doi.org/10.1002/tl.8102>

Mahmoud Kaddoura, "Think Pair Share: A Teaching Learning Strategy to Enhance students' Critical Thinking." Educational Research Quarterly 36, no. 4 (June 2013): 3-24

Bernie Krause, *The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places*, Paperback (New York, New York: Little, Brown and Company, 2012)

Bernie Krause, *Wild Soundscapes: Discovering the Voice of the Natural World, Revised* (New Haven, Connecticut: Yale University Press, 2016)

Deanna Ochs et al., eds., "The Power of Sound: the Natural Sounds and Night Skies Division Interpretive Handbook" (National Park Service Natural Sounds and Night Skies Division, 2018), https://www.nps.gov/subjects/sound/upload/PowerSound_May2018updated-508.pdf

Tom Rice and Jonathan Stern, *Keywords in Sound*, Paperback (Duke University Press, 2015)

Schola Affectus, "Listening, Noise Pollution and the Maaban," March 2018, <https://sjsa.wordpress.com/2018/03/19/listening-noise-pollution-and-the-mabaan/>

Next Generation Florida Sunshine State Standards / Common Core

- SC.4.P.10.3 - Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.
- SC.7.P.10.3 - Recognize that light waves, sound waves, and other waves move at different speeds in different materials.
- SC.4.N.1.1 - Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.
- SP.PK12.VI.1.2 - Apply listening and auditory skills, such as discriminating sounds and associating concepts, actions, and ideas with expressive language.
- SP.PK12.VI.4.2 - Locate school and community resources for recreation and leisure that facilitate participation by individuals who are blind or visually impaired.
- SP.PK12.VI.6.1 - Apply listening and auditory skills, such as discriminating sounds and associating concepts, actions, and ideas with expressive language.
- SP.PK12.VI.5.6 - Identify common auditory environmental stimuli and locations, such as the sound of a water fountain in the hallway and traffic sounds in the roads.
- CC-SL.1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
- CC-SL.2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- CC-SL.3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
- CC-SL.4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.



Field Notes:

Choose one to five listening locations for the group to visit.

- During travel between locations, the group is free to engage in conversations and make other appropriate sounds.
- While at a designated listening location, the group will need to be as silent as possible.
- At each location, complete Steps A through C.
- Before the first iteration, explain soundscape as the sounds heard in a location, considered as a whole.

Step A) Listen

Remind everyone about active listening and the need to be as silent as possible. Ask for feedback from the group about how long to listen (30 seconds, 60 seconds, or more?) and arrive at consensus on the duration.

- Allow participants to spread out and find a comfortable spot. Remind the group that you will watch the clock so they can focus on listening and begin monitoring time.
- Before the first iteration, explain soundscape as the sounds heard in a location, considered as a whole.

Step B) Pair

After listening for the full duration, gently regain everyone's attention.

- Have participants select a partner for discussion, but no more than three in each group.
- Provide one or two question prompts to guide their conversations.
- Give the groups five minutes to discuss and begin monitoring time. Announce the halfway point to ensure everyone has a turn to talk.

Step C) Share

- Ask each group to select a spokesperson.
- Gather everybody together again, forming a circle.
- Remind everyone that there are no wrong answers.
- Proceed around the circle, giving each spokesperson an opportunity to report on their pair's conversation.
- After the last spokesperson, summarize the major points you want the group to take away.
- Travel to the next location and return to Step A, or proceed with final discussion.

Final Discussion

What can we understand about each listening location through its soundscape?

- Do you think any features of this local soundscape affect animal communication?
- Were there any disagreements in your conversations about specific sounds? How did you navigate them to reach consensus?

