Good Vibes Educational Activity

Objective

Listeners are introduced to qualities of sound that affect the health of all living beings, such as the stressors of noise pollution, and the benefits of a balanced soundscape.

Ages 10+
Group Size 10–20 students
Setting Outdoors
Duration 20–30 minutes
Subject(s) Science, Special
Skills, Social Science

Overview

This activity explores how different sounds affect health. It works best in a spot where both natural and human-made sounds are present. If desired, the leader can preface with a presentation regarding the site's current conditions including the environmental and/ or urban surroundings. The activity begins with silent listening. The group then shares different sounds that they notice at this location. During discussion, they'll identify sounds that affect human health and wellness. The group will look at how sounds make them feel, as well as how noise pollution makes communication harder. The goal is to talk about ways to protect or improve the natural sound environment.

Logistics

Chose a comfortable place to gather and sit. It could be a seating area protected from the weather, or on the ground if the conditions are right. For the discussions, a circle formation will offer an equal opportunity for all to share.

Fun Fact

Muir Woods National Monument in California has made part of the park, Cathedral Grove, a "quiet zone." They encourage visitors to turn off cell phones, talk and walk softly, and enjoy the "space for quiet reflection" among enormous old redwood trees. For an even "more peaceful experience", they recommend visiting when it's raining. Imagine how soothing that would sound!

Muir Woods National Monument



Important Vocabulary

Acoustics How sound behaves in a space;

The branch of physics concerned with the properties of sound.

Biodiversity The variety of living things in an area, including animals, plants, fungi, and

even tiny organisms like bacteria. These species work together in ecosystems

to keep nature balanced and support life.

Environmental health A part of public health that studies how people and their environment affect

each other. The goal is to promote human health by keeping our communities

safe and healthy.

Habitat The natural home or environment of an animal, plant, or other organism. A

person's usual or preferred surroundings.

Noise pollution Unwanted or loud sounds in the environment that can harm people, animals,

and other living things.

Soundscape The sounds heard in a particular location, considered as a whole

Vibration A back-and-forth movement of something that has been disturbed. It could be

a solid, liquid, or wave;

(Informal) The mood, feeling, or atmosphere of a person, place, or thing as

others experience it.

Procedures

Step 1. What Do We Hear?

The leader will ask everyone to stay silent for 60 seconds and listen to their current location. Then, gather the group into a circle to facilitate a discussion about sound and well-being.

Ask

What sounds are you noticing? Let's go around our circle and share one or two sounds that you can identify in this location.

Step 2. Sound and Well-being

Say

All sounds travel as waves moving through a medium like air, water, or stone. How these sounds interact with objects is called acoustics – such as the way sound waves reflect off buildings or are absorbed by trees. Sound vibrations not only hit our ears, but also our bodies. Some sounds may be unwanted and called noise, but other sounds may help us feel calm and tranquil. It's important to remember that everyone has different sensitivities to sound. All our feelings are valid and it's alright not to agree how we label sounds. However, there are some sounds that most of us consider calming.

Procedures (continued)

Ask

- Which sounds here help you to feel good?
- Do any of these sounds bring you positive memories?
- When you visit a park or the wilderness, what sounds do you expect to experience?
- Should we have spaces that offer us peace and tranquility?
- How can you make time in your daily life to experience sounds that help you to feel good?

Step 3. Sound and Stress

The leader should again ask everyone to stay silent and listen to their current location for another 60 seconds. They may move outside the circle for this listening exercise. Then, ask the group to re-form the circle for a discussion about sound and stress. Whenever it fits, remind the group about any noisy human-made sounds they noted during Step 1.

Say

After our first silence, we identified several sounds that were pleasing to us. This time, let's talk about the sounds we did not enjoy in the soundscape. Layers of sound are happening all the time in the outdoors. Individual sounds are easier to hear when they are not covered by other sounds. The unwanted sounds we may label as noise are usually intense, loud, and last long periods of time. They can cover up other softer sounds such as birdsong, the human voice, and sounds from the Earth like wind and water. Noise can cause stress, which affects the health of both humans and animals.

Ask

- Which sounds at this location do you find annoying?
- How do noisy sounds make you feel? Follow up question: Why?
- When you are communicating, which sounds do you use? Examples are speech, singing, tapping, clapping, whistling, etc.
- How does noise interfere with your ability to communicate? An example is a car driving by as you are trying to speak with someone nearby.
- What sounds do animals use to communicate? Examples are tweets, rumbles, squeaks, chirps, growls, howls, barks, etc.
- Do you think noise affects animals like it affects humans? Answer is Yes. If animals can't communicate to hunt, find a mate, claim territory, or build a habitat, they may leave the area.
- What are some ways that a park ranger or visitor could reduce noise pollution? Could we make it easier to hear natural sounds in this space?

Say

We've been discussing an important part of environmental health, allowing space for all the creatures of Earth to be able to communicate. The more time we have without noise pollution, the greater number of animals will be able to thrive. This can improve biodiversity. Species and organisms work together to maintain balance and support all life, like an intricate spider web. Humans are a part of this web and we have a responsibility to help our animal friends prosper.

Fun Fact

Research has found that sounds of nature help reduce stress and restore a sense of well-being. Birdsong and the sounds of water are particularly beneficial. However, not all species are always calming. People report being frightened or annoyed by squawky or screechy birds, such as crows or some owls.

Bird sounds and their contributions to perceived attention restoration and stress recovery.



Resources

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Ochs, Deanna 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/PowerofSound_May2018updated-508.pdf.

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Good Vibes Field Notes

Step 1. What Do We Hear?

Ask the group to stay silent for 60 seconds and listen. Then gather everyone into a circle to facilitate the discussion.

Ask

What sounds are you noticing? Let's go around our circle and share one or two sounds that you can identify in this location.

Step 2. Sound and Well-being

Ask

- Which sounds here help you to feel good?
- Do any of these sounds bring you positive memories?
- When you visit a park or the wilderness, what sounds do you expect to experience?
- Should we have spaces that offer us peace and tranquility?
- How can you make time in your daily life to experience sounds that help you to feel good?

Step 3. Sound and Stress

Ask everyone to stay silent for another 60 seconds and listen. Then gather the group back into a circle to facilitate the discussion.

Remind the group about any noisy sounds mentioned in Step 1.

Ask

- Which sounds at this location do you find annoying?
- How do noisy sounds make you feel? Why?
- When you are communicating, which sounds do you use? Examples are speech, singing, tapping, clapping, whistling, etc.
- How does noise interfere with your ability to communicate? An example is a car driving by as you are trying to speak with someone nearby.
- What sounds do animals use to communicate? Examples are tweets, rumbles, squeaks, chirps, growls, howls, barks, etc.
- Do you think noise affects animals like it affects humans? Answer is Yes. If animals can't communicate to hunt, find a mate, claim territory, or build a habitat, they may leave the area.
- What are some ways that a park ranger or visitor could reduce noise pollution? Could we make it easier to hear natural sounds in this space?