

Sound Map

Subject: Observing sounds

Duration: 1 hour

Setting: In class

Materials: Journal, pencil, your ears!

National Standards – LS1.A, ESS3.C, LS2.C, LS4.D

Guiding Theme: This exercise is designed to help students think about the interactions between living, non-living, and human-generated things. This will also help them think about what influences the distribution of things in a place (i.e. why would there be more animals in one place, and more cars in another?) Have students think about how they can draw differences in sound, using shapes, colors, lines of different lengths, etc. Encourage students to keep a tally of how many different sounds they hear.

Take students to a place with a variety of sounds present. The sound map is the only time the students will be paying attention to man-made sounds, as well as sounds made by the natural world.

There are 3 types of sounds that Scientists study:

Biophony: sounds from living things

Geophony: sounds from natural, non-living things (rivers, wind, the ocean, thunder)

Anthrophony: sounds from humans, and human-made things

Activity Instructions

1. Students should draw a small (1-inch high) version of themselves in the center of the journal page. They should write a word or use a symbol to represent **what** made the sound. Be sure that students include the meta-data (date, time, place, weather, etc.).

2. Have students see if they can use a symbol to represent the sound. Maybe an arrow up if the sound is high-pitched. Maybe a wavy line if the sound changes a lot. Have students think about the ways they can draw a sound.

3. Students should listen for the furthest away sounds first and put them at the edge of the journal page in the direction they hear the sound coming from. Students should draw a picture to represent them and do INIWIRMOs about the sounds.

4. Students should listen for a while. Encourage them to see if they can notice any new sounds when old sounds fade away. They should make a note ("I notice") if this happens.

Discussion Questions

Did you know? There are sound scientists whose job is to listen to and interpret sounds. At Kenai Fjords National Park, we have a scientist who studies the sounds of the Park.

When students are done making the map and have finished their INIWIRMOs, check in to see if they were able to make connections between sounds. For example: "I didn't hear any birds until the motorcycles drove away"

Have students share in pairs or small groups how they drew different sounds and notice how each of them drew sounds they all heard. Have them discuss why they drew sounds a certain way and share the different shapes/colors they used.

What were some of your favorite sounds that you heard? How do you think animals (or plants) hear different sounds? How do you think man-made sounds impact the animals in the area?

How many different sounds did you hear?

Example of Sound Map

Kenai Fjords National Park - Marmot Meadows

July 28, 2021

Cloudy, 55°F

3500' cloud deck

