

Sound Mapping



Overview: Sound mapping is a great way to encourage students to quiet themselves, focus intently on an ecosystem, interpret their surroundings through a different sense, and communicate their experience with others.

Age Range: best for upper elementary through adult, but can be adapted for younger learners

Duration: 7-30 minutes, can be repeated over time

Materials:

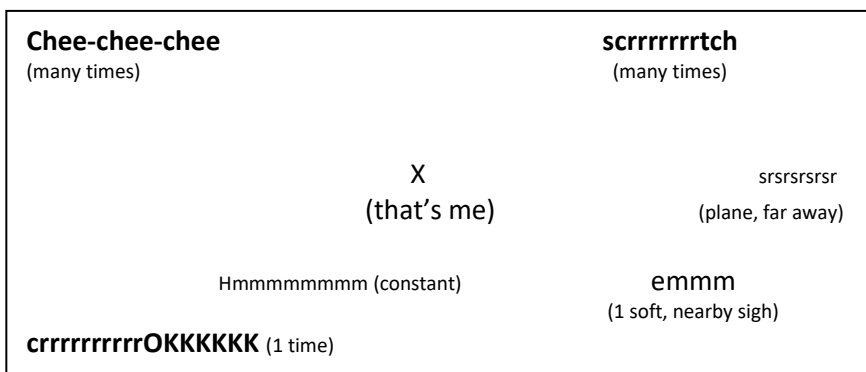
- notecards, journals or paper
- pencils, pens, or colored pencils/markers

Activity: In the simplest form of this observation and awareness activity, learner(s) first find a place to sit in an ecosystem. This spot should be safe, comfortable, and in a location where they can observe quietly without disrupting others.

Note: While you might think that ecosystems only exist “outside” human built environments are ecosystems too! It is great to do this activity outdoors, but it can also happen indoors. An open window, if possible, allows for observing sounds coming from both inside and outside the building. If it isn't possible to open a window, that's fine too! There are plenty of sounds inside buildings. If you are inside, try to find a place that isn't dominated by one loud, nearby sound (like a TV or radio); instead, choose a spot where you can hear a variety of sounds.

Once learner(s) have picked their spot, provide them with a notecard, journal or paper and a pencil/pen. Instruct them to make an X in the center of the map. This marks their location in the ecosystem.

Explain that over the next 5-10 minutes, they will listen closely and document the sounds they observe around them, noting both the type of sound and the location. Each sound should be somehow recorded on their map -- they can use drawings, symbols, simple descriptions, or onomatopoeia to mark the sounds. Each time they mark a sound, they should be sure to choose the location on the map that indicates both distance from them and direction. With younger learners, it is useful to do your own quick example of a sound map to demonstrate this. Below is a sound map I did while writing this lesson plan. I'm in the house, but windows are open so I can hear noises from the front and back yard:



After the sound mapping is finished, have learners share their observations with you, partners or a larger group. If needed, question prompts include:

- Did you hear anything surprising?
- What was your favorite sound? Can you imitate it?
- Did you notice more sounds coming from a certain direction? Why do you think that is?
- Did you hear any animal sounds?
- Did you hear any sounds created by plants?
- Did you hear any sounds of water?
- Did you hear any human sounds?
- Did you hear any mechanical/machine sounds?
- Did you notice any repetitive sounds or specific patterns of sounds?
- How did it feel to listen to sounds?
- After sound mapping, what questions do you have about the ecosystem?

You can repeat the sound mapping activity in different locations, at different times of day, or in different seasons. How do morning sounds at your apartment window compare to evening sounds at your apartment window? How do the sounds in your backyard compare to the sounds on your front stoop? How do sounds in the forest compare to sounds near a creek? How do the sounds of late winter compare to the sounds of early spring?

Note: If you are learning at home, we'd love to see your sound maps! Feel free to e-mail a picture of your sound map to us at info@akcoastalstudies.org or post them to the Center for Alaskan Coastal Studies Facebook page.

Tips for leading effective sound mapping activities in groups:

- Use a quiet and calm, but enthusiastic tone as you describe the activity.
- Clearly explain how students should select their spot for sound mapping. I've found it useful to require them to choose a spot that is **safe, comfortable, and where they can quietly focus**. You will also want to set boundaries for how far they can go in selecting their spot and provide a specific amount of time (usually about 30 seconds) for them to find a good spot.
- Before they disperse, demonstrate to students how to complete a sound map, by actually listening yourself and marking on a whiteboard or piece of paper what you hear.
- Suggest a variety of ways for students to record sounds on their map - common words, descriptions of the sounds, onomatopoeia, symbols, shapes, etc.
- Ask students to record the location, description, and frequency/number of times heard for each sound.
- Make sure you let students work for at least five minutes on their sound map. Extend for longer if they continue to be engaged and you are not confronted by time constraints or environmental factors.
- Provide an opportunity for students to share what they heard, and tie this into your learning objectives (observation skills, scientific process, ecosystem comparisons, nocturnal vs. diurnal, ecological relationships, and communication are all themes that are easily connected to sound mapping.)