Community Science

Pollinators – Grade 3

Lesson 9: Observational Sound Map

Duration: 25 minutes **Location:** Outdoor

Overview

In this lesson students will use their sense of hearing to discover the range of activities and inhabitants that occupy the space around their school grounds and use their observations to understand how their community is and/or is not a good habitat for wildlife.

Learning Objectives

By the end of the session, participants will be able to:

- Identify 3 environmental conditions that threaten animal survival in their schoolyard;
- Identify 3 actions they can take to improve the local environmental conditions for wild animals.

Curriculum links

Grade: 3

Subject and Unit: Science, Animal Life Cycles

- Identify examples of environmental conditions that may threaten animal survival and identify examples of extinct animals. Recognize that habitat preservation can help maintain animal populations and identify ways that student actions can assist habitat preservation.

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Equipment required

- ☐ A journal/notebook and writing utensil for every student
- ☐ Sit upon (optional)

Lesson plan

Time	Activity	Equipment Needed
10 minutes	Take your group outside, dressed for the weather. Your group will need to find a spot within the designated boundaries that is within sight of the facilitator, but away from other students. Sound maps are a quiet, individual activity. They need to be as quiet as possible and not interact with other students. Participants can choose to sit however is comfortable for them. They begin by drawing a dot in the center of the paper to represent them. Space at the top of their paper represents space in front of them. Space at the bottom of the paper represents space behind them. The right side of the dot represents space to their right, and so on. Before beginning, have all participants do a breathing activity (e.g., 5 finger breathing or box breathing) to settle their nerves and set the stage. When the facilitator gives	• Pencils • Journal / notebook • Sit upon (optional) • Weather appropriate clothing

	the signal to start, students record everything they hear using a symbol they create. Students can use letters or shapes to represent sounds. Each time they hear a repeated sound, they record it again using the same symbol. For example, if they heard a bird chirp in a tree to their left, they could draw a musical note as close the chirp felt between their "X" and the left edge of their map. Tell them they can choose any symbols they want to represent sounds (pictures, shapes, words, squiggly lines, etc). Some participants might do better if they close their eyes and wait for a sound, then open their eyes and record the sound on their paper. Participants keep listening and recording until the time is up. Participants will finish by creating a legend to accompany their sound map. They do not need to know what the sound they heard was, students need to use their imagination to create the legend.	
15 minutes	After several minutes of listening and recording, gather back together to share each other's maps, symbols and sound discoveries. Compare and contrasting each other's experiences by asking questions, like: • How many different species did you think you heard? • Do you believe this is a healthy amount of wildlife? ○ If not, why not? (*Because there is not a wide variety of plants or wild space for them to utilize for food and shelter, there is no local body of water, human activity scares them away, there is no prey, etc.)*	• Pencils • Journal / notebook • Sit upon (optional)

	○ If yes, why? (*Because there is a big wild space with many plants for them to use for food and shelter, there is places for them to hide away from human activities, there is available prey, etc.)* • Do you believe our schoolyard /community has a diversity of wild animals? ○ If no, why not? ○ If yes, why? • What are actions we could take to improve our local schoolyards' (habitat) biodiversity? (*Plant more bushes/trees/flowers, put out a bird bath/feeder, etc.*)	

Extension

1. Repeat this activity several times. Having participants adopt one specific location as their own unique spot to connect with throughout the year.
2. The sound mapping activity can be repeated from different locations, during different seasons and times of day. Participants can compare their results, make note of any differences and discuss further about the causes behind these differences.
3. Maps could be used to determine species abundance. Discussion could be lead around; the lack or abundance of wildlife sounds in certain areas of the schoolyard, how the schoolyard could change to increase wildlife sounds, etc.
4. Participants could create a story of events, art piece or poem to accompany their sound map.
5. Participants could create a graph from their sound map to determine the frequency of sounds in their location and make comparisons to other locations chosen by their classmates.
6. Participants could create a to-scale version of their sounds map by taking measurement of their schoolyard.

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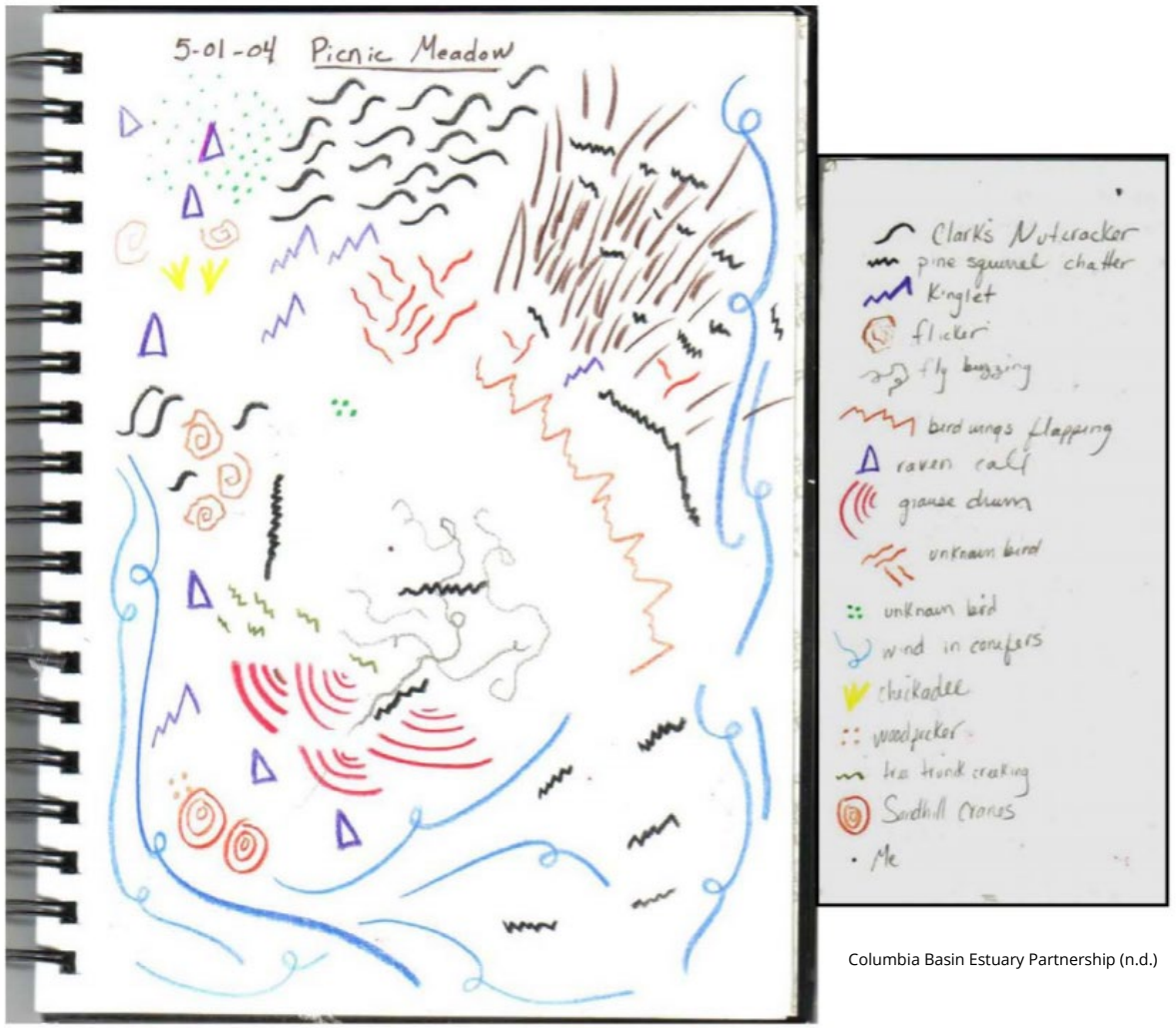

Columbia Basin Estuary Partnership (n.d.)