LESSON 11

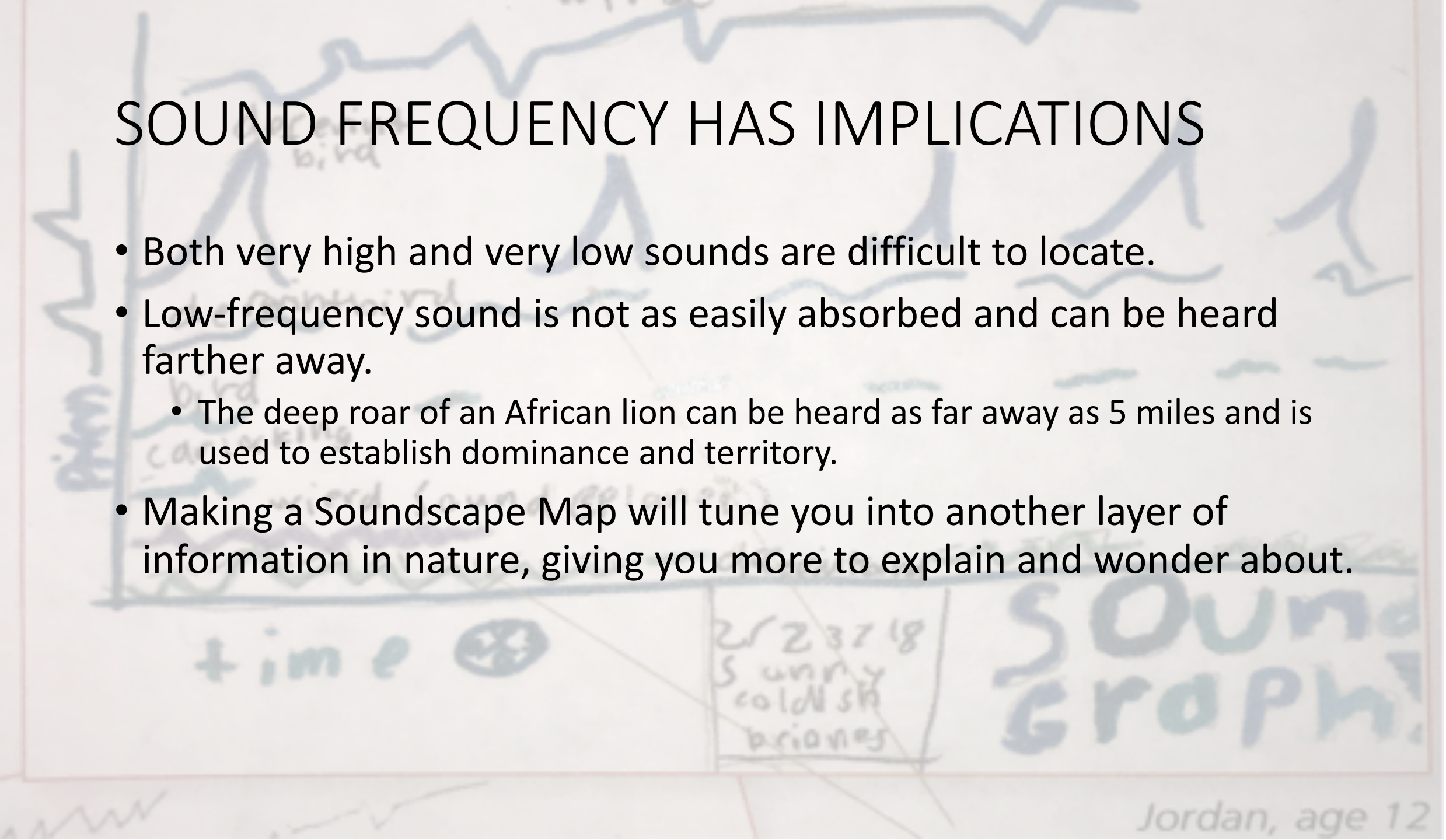
SOUNDSCAPE AND ACOUSTIC SPACE MAPS

PAY DEEP ATTENTION TO WHAT YOU HEAR

- We seldom pay attention to what we hear. When you slow down to listen, you might be surprised by how many sounds surround you.
- There is significant ecological information contained in the sounds of a place. No two birds sing at the same frequency, thus they can share their acoustic environment without interfering with each other.

SOUND FREQUENCY HAS IMPLICATIONS

- Both very high and very low sounds are difficult to locate.
- Low-frequency sound is not as easily absorbed and can be heard farther away.
  - The deep roar of an African lion can be heard as far away as 5 miles and is used to establish dominance and territory.
- Making a Soundscape Map will tune you into another layer of information in nature, giving you more to explain and wonder about.



YOUR SOUNDSCAPE and ACOUSTIC SPACE MAPS

- Listen to the soundscape around you, then diagram and map the soundscape using symbols, different colors, and other ways to graphically represent sound.
- Use two facing pages in your journal for the two-parts of this activity:

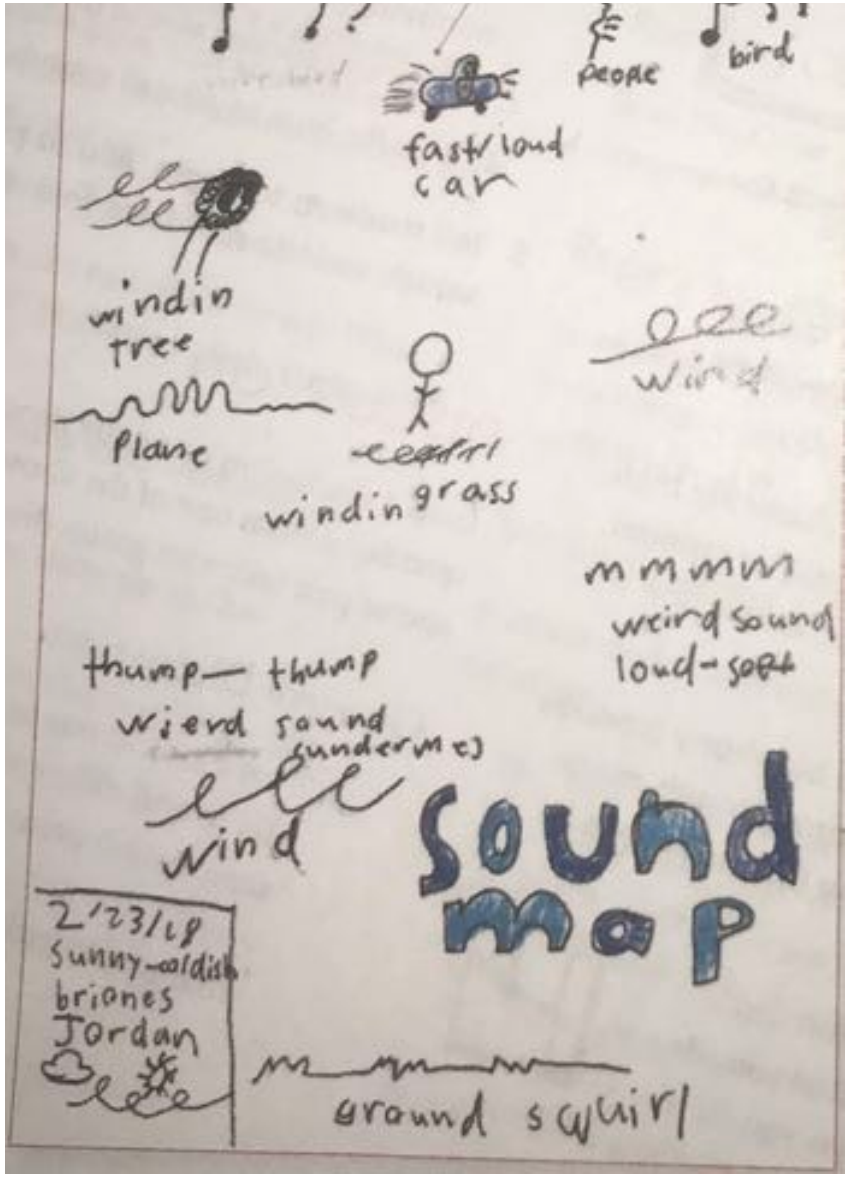
  - Part 1: CREATE a **physical soundscape map**—an overhead map of an area with points for sounds

    THEN…

  - Part 2: CREATE an **acoustic space map**—a graph that shows the relative pitches and loudness of different sounds,

Map #1: SOUNDSCAPE MAP

1. Listen to sounds and map their locations
2. Put yourself in the center of the map, then start with the most distant sounds, putting them at the edge of your paper, then work toward the center.
3. Find creative ways to show sounds, using symbols and diagramming along with words and sketches.
4. Include information about pitch as you did in Forest Karaoke.

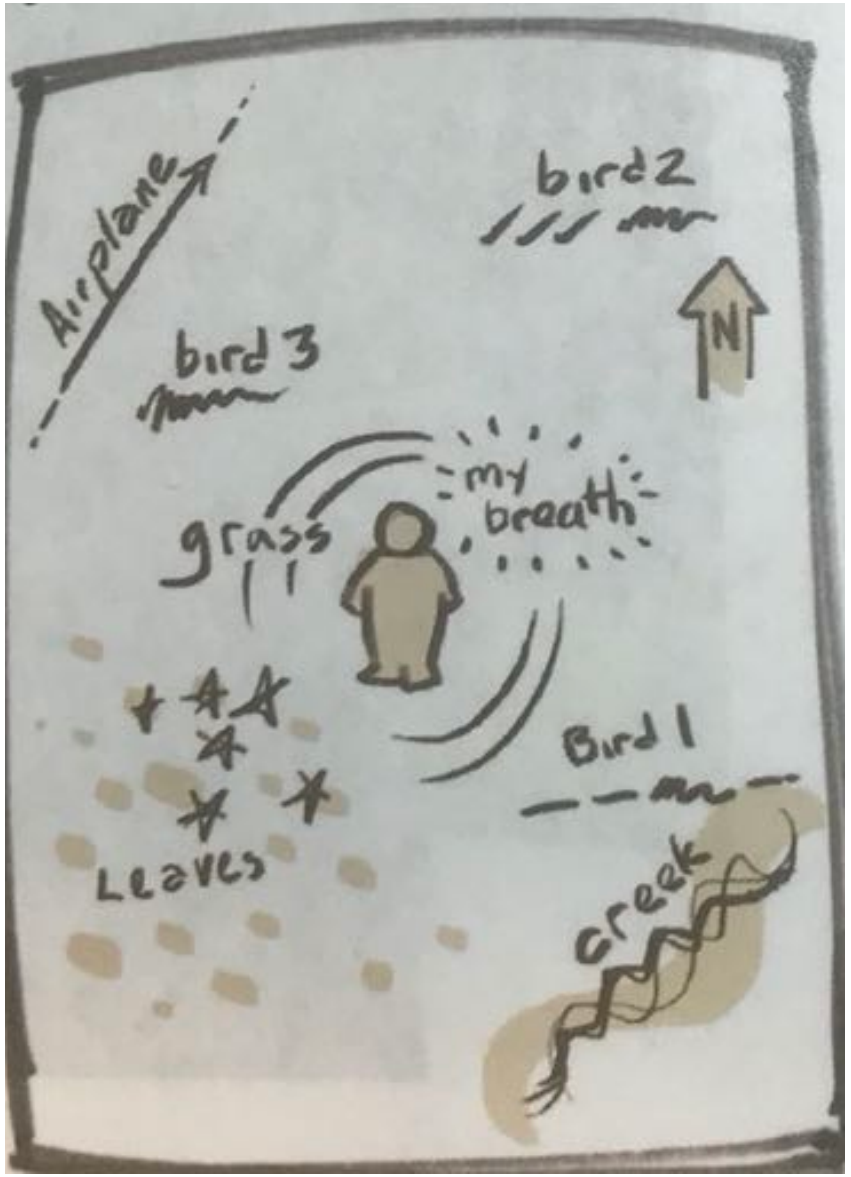


Part 1: Soundscape Map
Step-by-Step Procedures
Step 1

1. Sit comfortably so you don't need to move or rustle the leaves or branches around you.
2. Close your eyes and breathe deeply and slowly.
3. Listen in silence to the sounds around you.
4. Notice what you hear. Now listen BEYOND that to other, more subtle sounds around you.
5. Hold up your hand and lift one finger to count each of the different kinds of sounds around you.

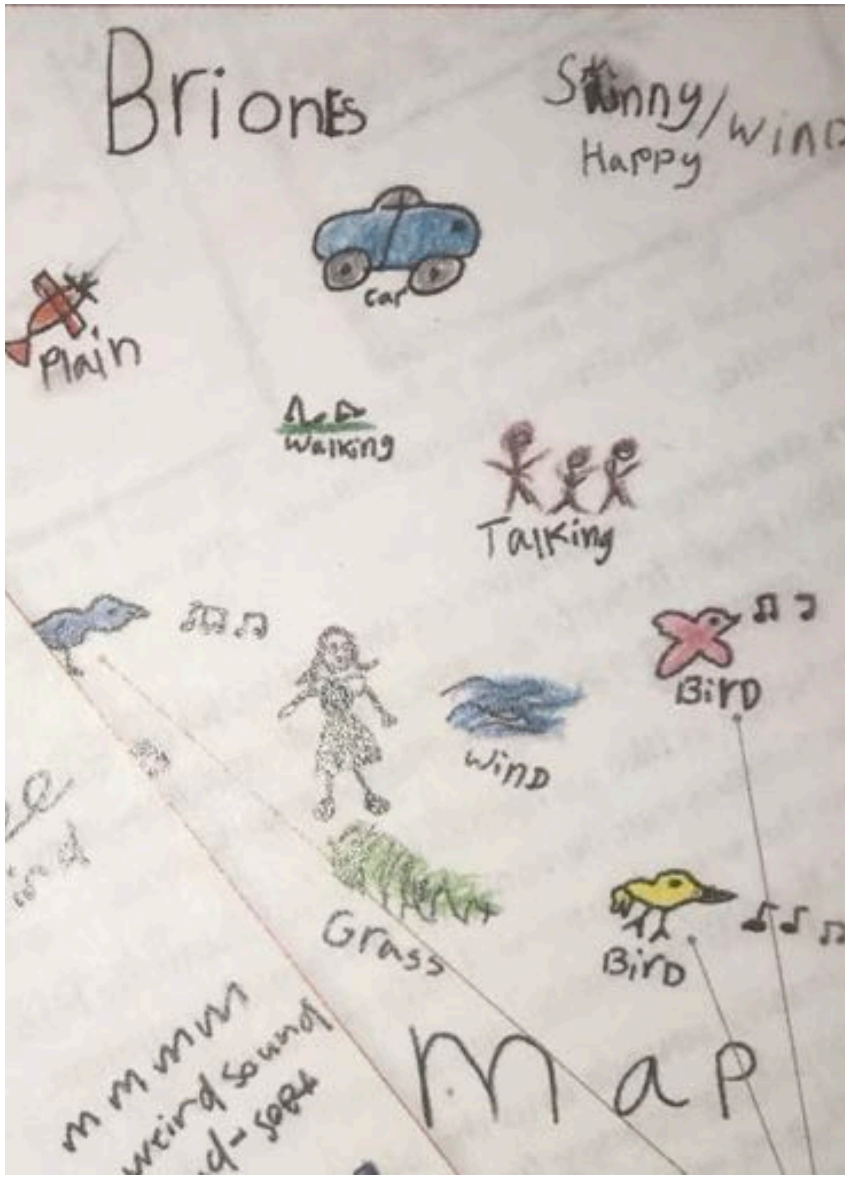
Part 1: Soundscape Map Step-by-Step Procedures Step 2

1. Make sure no one is sitting near you so that you will not be distracted by small sounds made by other people.
2. Begin, as always with your **metadata**.
3. Add a North arrow to help orient yourself, since this is a map. (North will be the top of your page.)
4. Sit facing north
5. Sit, listen, and begin to draw and describe the locations of the different sounds you hear.
6. Draw yourself in the middle of the journal page.



Part 1: Soundscape Map Step-by-Step Procedures Step 3

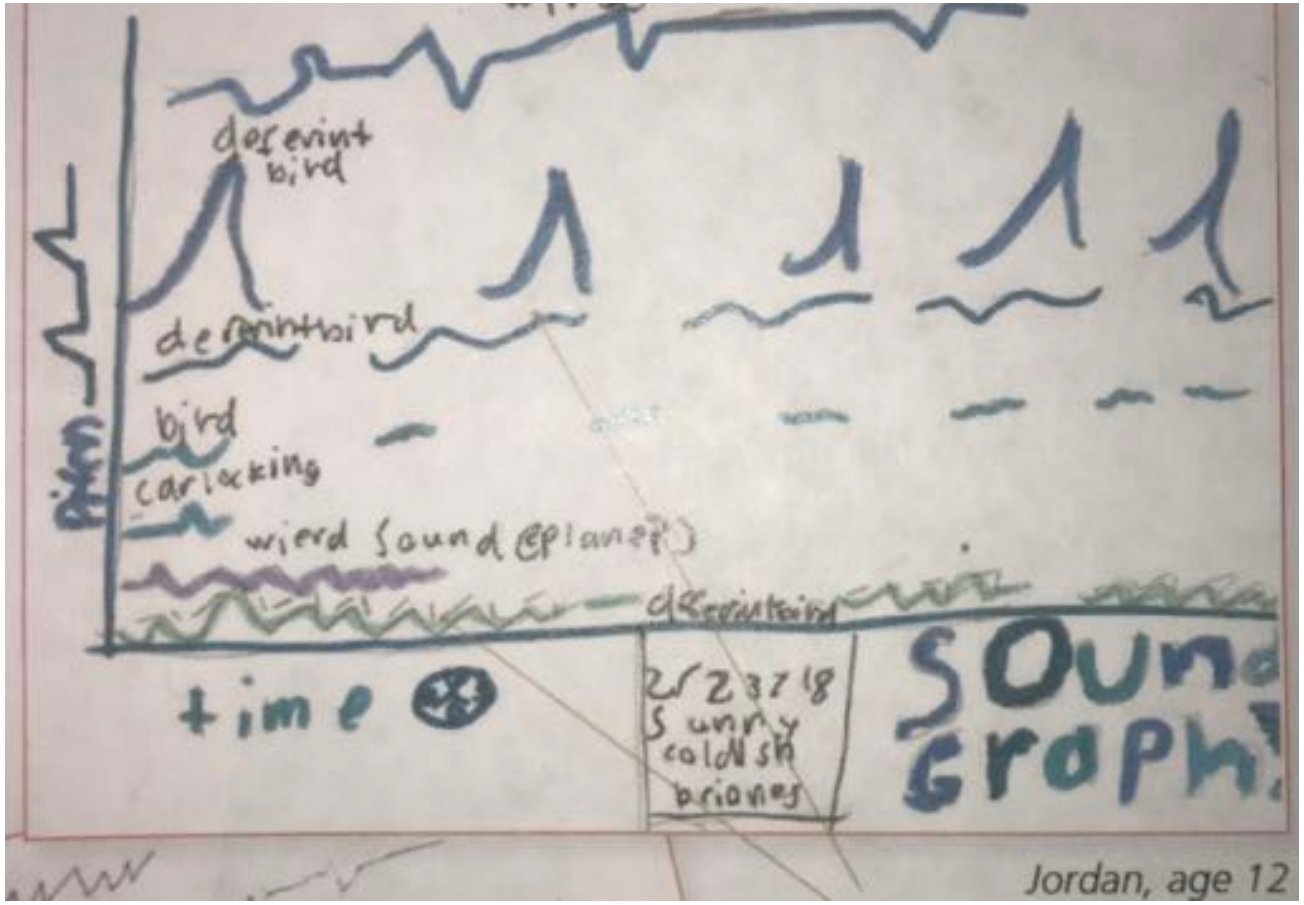
1. Start with the most distant sounds that you hear and put them around the edges of your paper.
2. Slowly work your way in toward the center, as the sounds get closer to you.
3. Get creative and inventive. Create symbols to show sounds.
4. Use words, pictures and diagrams.



Map #2:
ACOUSTIC SPACE MAP

1. Make a graph using lines to show sounds in the environment.
2. Use different colors to show different categories of sound:

    1. BIOPHONY: sounds from living things,
    2. GEOPHONY: sounds from natural, nonliving things,
    3. ANTHROPHONY: sounds from humans and things humans have made.



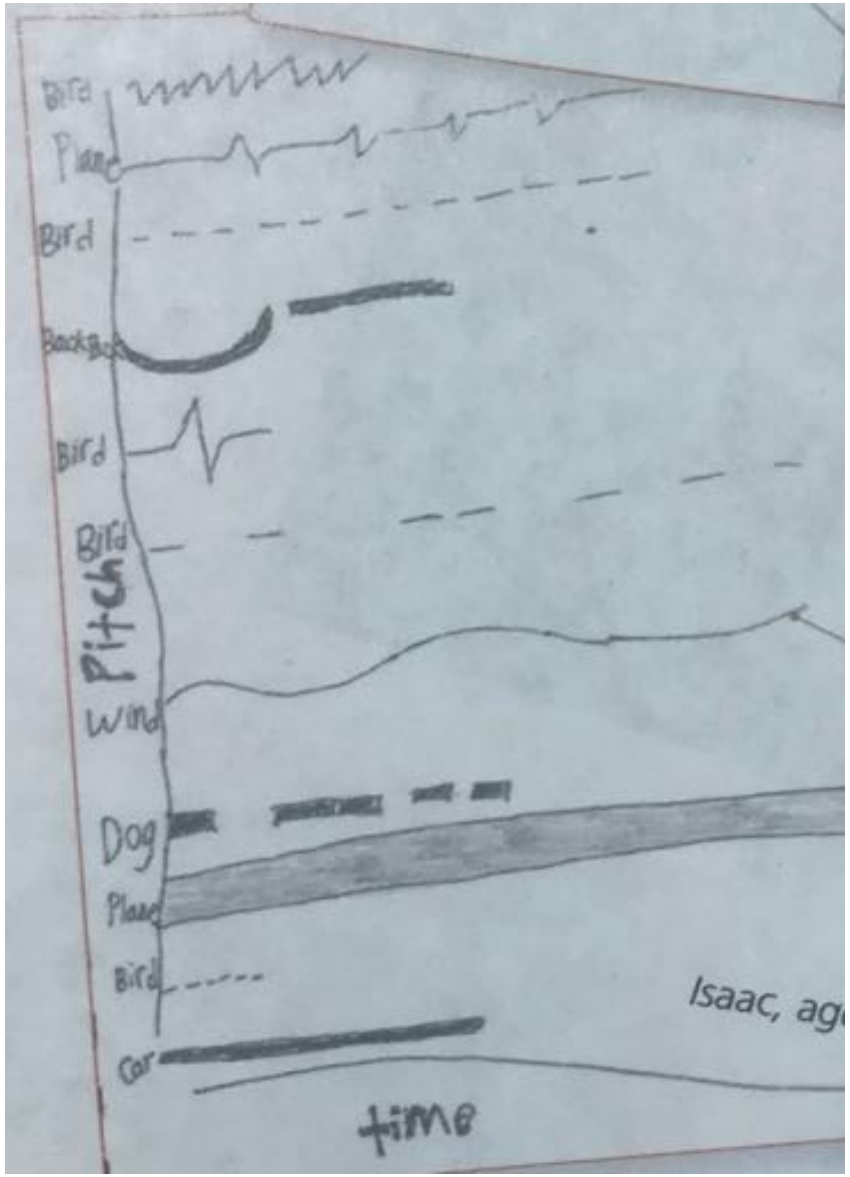
Map #2: Acoustic Space Map Step-by-Step Procedures

1. Focus your attention on the soundscape. Notice the different types of sounds and how they reveal information about the environment.

   Some sounds are high, some low.

   Some are constant, rhythmic, or random.

2. Classify sounds into three parts: biophony, geophony, anthrophony.



Three Parts to your Acoustic Space Map

1 **Biophony:** All the natural sounds that are made by living things such as birdsong, cricket chirps, buzzing bees, etc.

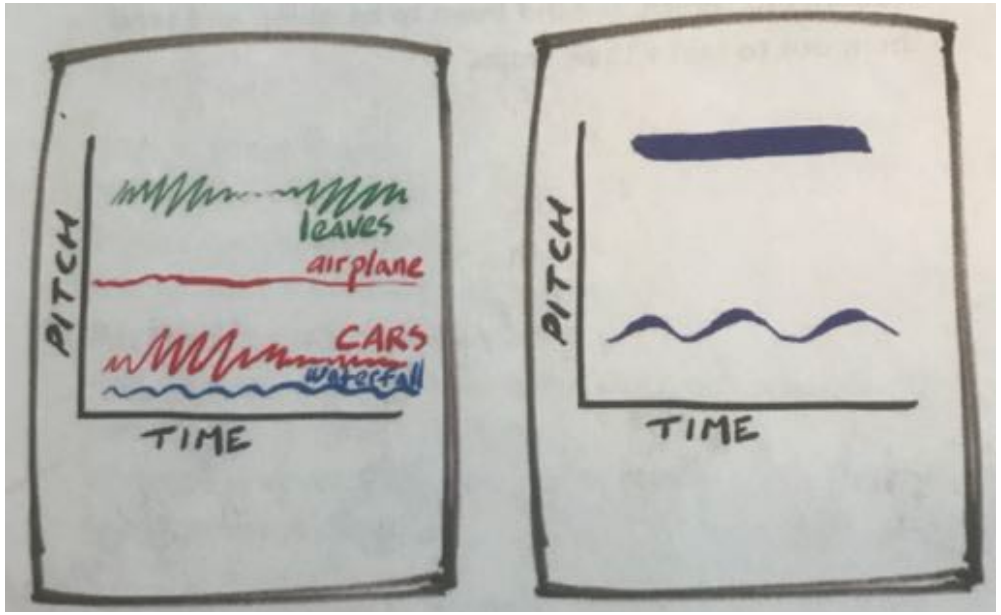
2**. Geophony**: All the natural sounds that are made by nonliving things such as wind, babbling brook, waves on the shore.

3. **Anthrophony:** All the sounds made by humans and their machines such as airplanes flying overhead, people talking, cars driving by.

How to make an acoustic space diagram

3. Use different lengths, heights and widths of lines to place sounds on a graph with pitch and time as the two axes.

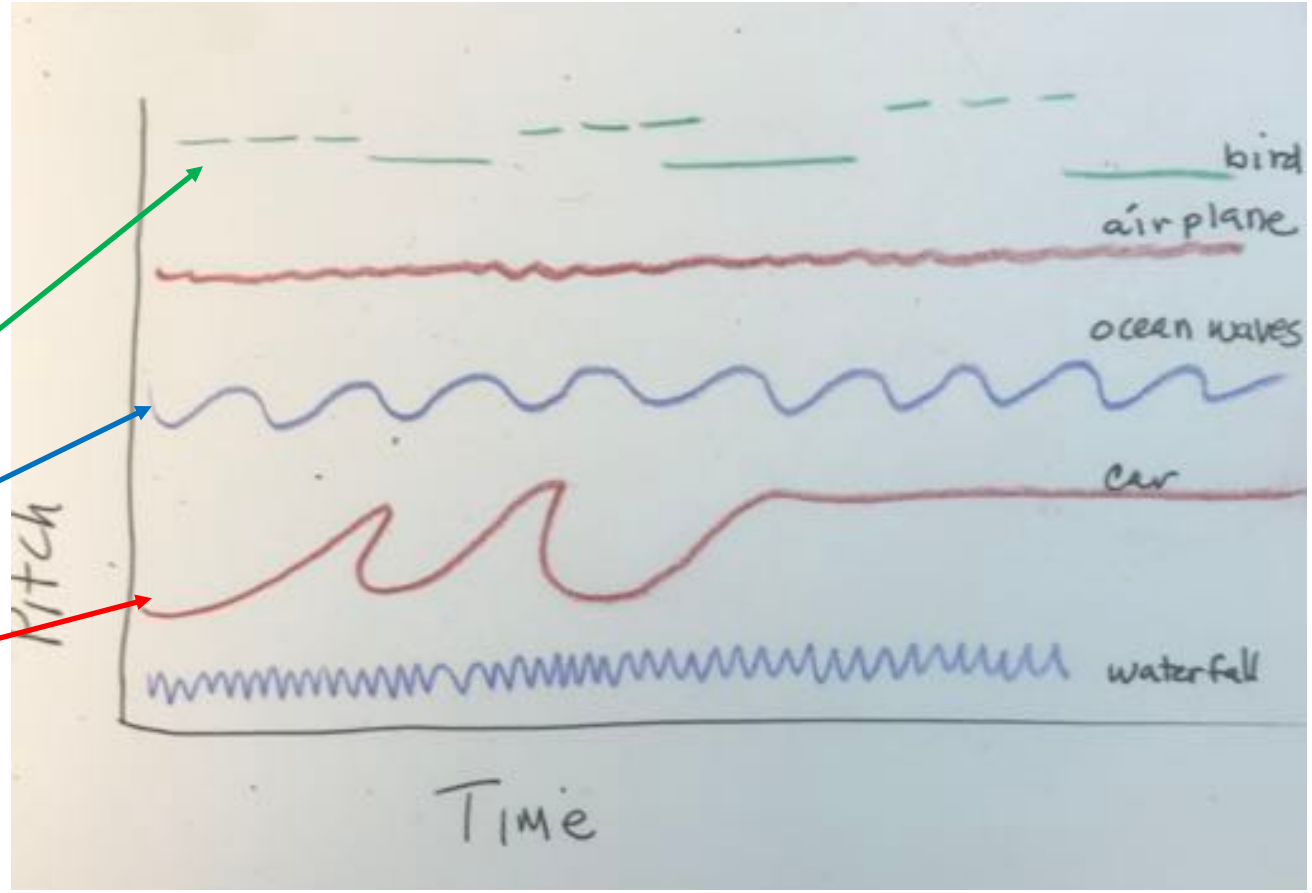
- You can use writing and expressive lines to describe sound.
- Along the vertical axis, write *Pitch* (low or deep to high) Label the horizontal axis *Time.*
- When you hear a high sound, put it in higher part of the graph. Put a lower sound in the lower part of the graph.
- Show volume or how loud something is, by pressing hard to make a bold, dark mark.
    - A loud, high train whistle that stays at the same pitch might look like a bold straight line at the top of the graph.
    - Waves washing up on the shore might look like sound waves on your graph.



Distinguish between living and nonliving natural sounds

4. Use a different color for each of the three categories

- Start by recording living and nonliving natural sounds using two different colors.
- Finally, record human-related sounds using a third color.
- In this example:
    - Biophony (green)
    - Geophony (blue)
    - Anthrophony (red)
- Pay particular attention to which sounds stand out from the rest of the noise.



ALWAYS BEGIN WITH METADATA AND TITLE

- **METADATA**:
  - Date, Day, Time, Season
  - Location, Habitat
  - Weather
    - Temperature
    - % Cloud Cover
    - Wind Speed
  - Other interesting information such as who you are with.
- **TITLE: SOUNDSCAPE AND ACOUSTIC SPACE MAP**
  - You will need two facing pages for these two maps

Procedure Review

- Begin with your Soundscape Map
  - Add a north arrow.
  - Draw yourself in the middle.
  - Record the sounds farthest away on the outsides, then work your way toward the center as sounds get closer.
  - Create symbols to show sounds.
  - Use words, pictures and diagrams.
- Next create your Acoustic Space Map
  - Draw a graph showing *Pitch* and *Time*.
  - Classify sounds as *Biophony*, *Geophony*, and *Anthrophony*.
  - Place your sounds on the graph based on pitch (higher on top, deeper on bottom).
  - Show volume by changing the darkness and thickness of lines.

Inspirational Creative Writing

- Once you have completed your journal pages, use the next page to compose a poem based upon your experience of ***deep listening***.
- Think about what you felt like when you were making your sound maps. What does it feel like to really listen to a place?
- **Write a poem about what you can hear if you take the time to slow down and listen.**
  - This poem does not have to rhyme.
  - Use descriptive language and imagery to create your poem.
  - Use onomatopoeia (the formation of a word from a sound associated with what is named, i.e. buzz, crack, sizzle.)

Be Creative, Be Original, Be Yourself.

- You will be amazed how creative you can be after doing nature journaling.

- In case you don't know where to begin, here's a suggestion:
  - Begin by just saying
    - "I hear…" and list some things you hear
  - Then write
    - "I feel" and wrote about how you felt when you heard those sounds or as you listened.

REFLECTION QUESTION

(You know what to do.)

- Answer **ALL** the questions.
- Use question/answer form (use as many words from the question in your answer.)
- Order your questions in a way that makes a good paragraph.
- Begin with a topic sentence.
- Write your answers in the order you prefer.
- End with a closing sentence.

Reflection Questions

1. How many different sounds did you hear? What sounds stood out from the rest of the noise and what made them stand out?
2. What sounds were constant, what sounds were less frequent?
3. What **patterns** did you notice in the soundscape of this area?
4. What animal sounds did you hear? Were these intentional or accidental on the part of the animal?
5. Did that sound expose the location of the animal that made it? What might be the reason the animal made the noise?

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Bye for now.
Thanks for joining me.