



# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

### Introduction

With funding from the National Science Foundation, the Noise Project connects underserved communities with science in authentic ways in order to develop resources with communities to address noise pollution, and promote wellbeing and connection with nature. A collaboration between various independent community-based organizations (ICBOs), community members, the Cornell Lab of Ornithology, and an evaluation team, this project aims to enact a way of doing scientific research where underrepresented communities are not the subjects, but rather the co-creators and leaders of equitable and culturally responsive community science and action.

Noise pollution disproportionately affects low-income communities and communities of color and causes negative health effects like heart disease and diabetes. To promote more awareness and understanding of how noise pollution affects individuals and communities, the Noise Project created a toolkit of activities. This toolkit is meant to engage individuals across all ages, identities, and communities in learning more about noise and promoting community well-being.

In this toolkit, you will find activities that encourage reflection, dialogue, meditation, and connection to nature. These activities represent opportunities for all people to engage in science and research. We hope these activities will spark deeper education, conversations and action on how to ensure our communities achieve and sustain safety and well-being. Most importantly, we challenge you to not only utilize the toolkit, but to adapt and create new and energizing opportunities for community members to continue engaging with science and imagining our communities in their relationship to noise and nature. Especially for the young leaders in our communities, may this toolkit provide a space for their leadership, creativity, and knowledge to loudly bring about the world we all deserve to live in, now and tomorrow.

Many thanks to the organizations that not only contributed to this toolkit, but used their platforms to elevate young people as not just students, but as educators and change-makers:



MARILÚ LOPEZ-FRETTIS

## Toss and Talk, Noise Pollution Edition

### Introduction

This activity is inspired by the original Toss and Talk game, and is a great way to further explore our understanding of each other and get to know each other better. This activity involves a group of people in a circle, who answer or reply to questions written on a vinyl ball. The ball is tossed from one individual to another, who answers the question next to where their right thumb lands on the ball. Feel free to pick a different question if you're not comfortable with the first question that gets to you. Please be respectful of others and listen to them as they speak. For this particular activity, the questions or responses pertain to noise and sound found in our lives. Questions are found below.

### Materials

- ▶ Large vinyl ball
- ▶ Fine point permanent marker like a Sharpie

### Preparation

- ▶ Write questions all over the vinyl ball using the permanent marker

### Questions to consider

- ▶ Where do you go for some quiet time?
- ▶ What is your favorite sound to help you relax?
- ▶ What sounds remind you of home?
- ▶ Do you like to fall asleep to certain sounds?
- ▶ What noise affects you negatively the most, and why?
- ▶ What sound affects you positively the most and why?
- ▶ Is there a type of noise that does not bother you, but bothers other people?
- ▶ Tell us about a time when you enjoyed hearing a noise but it affected your hearing negatively.
- ▶ When was a time you wished you would have used earplugs?
- ▶ When do you intentionally expose yourself to noise pollution?



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### Instructions

1. Get 10 to 15 people in a circle. If more than 15, break into smaller groups.
2. Ask everyone to say their name before starting the activity.
3. Before you toss the ball to someone, say their name.
4. When a person receives the ball, they should answer the question closest to their right thumb. They are allowed to pick a different question if they are not comfortable with their first question.
5. Make sure everyone receives the ball once; do not toss the ball to the person next to you.



# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

### Nature Walk

#### Introduction

This activity is for people to have the opportunity to relax and enjoy the outdoors as well as possibly experience a bit of noise pollution first hand. We will be walking to a local park and exploring the different sounds and noises we hear. As you walk to the park, please stay silent and notice what sounds and noises you hear in the neighborhood. Afterward, we will gather together in a circle and discuss what we heard on our way through the park, as well as how we can make it possible for others to find their noise refuges. You can do this activity at any time of the year. Just encourage participants to dress appropriately so they can be comfortable.

#### Preparation

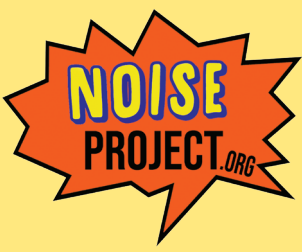
Choose a park nearby within walking distance. Plan out your walking route thinking ahead about areas exposed to noise, and about others where your participants can connect with nature and find refuge from noise.

#### Instructions

1. Gather in a circle and introduce the nature walk.
2. You'll want to encourage participants to stay silent and notice what sounds and noises they hear in the neighborhood.
3. Walk in silence to the park.
4. When you arrive at the park, gather in a circle and ask:  
"What sounds or noises do you hear and how do they make you feel?"
5. Ask this reflection question for the group to think about as they walk back:  
"How can you help others find their noise refuge?"



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# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

### Four Corners: Guess the Loudest Noise

#### Introduction

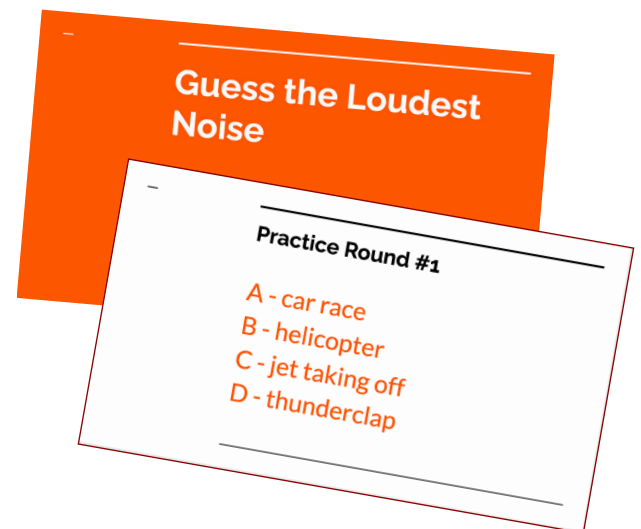
This activity is inspired by the original Four Corners game. The leader stands in the middle of the room and has participants guess the loudest noise of four different options. As each noise is assigned to a corner, the participants move to the corner of what they believe is the loudest noise. Once answered, the leader will say the correct answer. The people who guess correctly will remain in the game for another round of guessing until one person wins. For this activity there are eight rounds. It is recommended to hold a few practice rounds for people to get the hang of it. Although there are exceptions to the specific decibel levels created, we will be sharing their typical noise levels.

#### Preparation

- Download a PowerPoint version of the game here: <https://bit.ly/33iWf19> or copy the sets of four noises (A, B, C, D) on the next page onto chart paper.

#### Instructions

1. Decide which corner of the room you will call A, B, C, and D, and let the participants know which corner corresponds to which letter. Ideally, write the letter on a piece of paper and tape it to the wall so everyone can remember throughout the game which corner is associated with each letter. The leader stands in the middle of the room.
2. The leader begins the game by saying, "Many of us have experienced unpleasantly loud noises in our lives. Today you will not hear those loud noises, but you will need to recall how loud they can be. For each round, you will guess which noise typically reaches the highest decibel level out of four different options that I'll identify as A, B, C, or D. Here's how the game will work: I'll describe four sounds and call each one A, B, C, or D. You decide which sound is loudest, remember the letter of that sounds, and then go to the corner we've labeled with that letter. We will do two practice rounds before we start the game. After the first practice round, I will let you know the decibel levels of the sounds after everyone has chosen. After the second practice round, we will start the actual game. In the game rounds, if you do not guess correctly you will be eliminated from the rest of the game. The process will be repeated until only one person is still in the game. As you learn the decibel levels of the various sounds, take note of which are above 85 db and may cause harm to your hearing or health. Think about ways you can protect yourself from prolonged exposure to these noises."
3. The leader shows the PowerPoint slide (or chart paper) with the first set of noises (A, B, C, and D) shown on the next page. **Don't show the decibels in parentheses.** Only the leader should be able to see the decibels.
4. The participants will choose which sound they believe is the largest (A, B, C, or D), and move to the corner of the room represented by the letter.
5. As soon as the participants finish guessing, the leader will say the correct answer.



*Continued on next page.*



6. The people who got it right will remain in the game for another round, and the ones who got the answer wrong will leave the game.
7. Repeat the same process for each set of noises until only one person remains in the game.

## Noise Sets

### PRACTICE ROUNDS (2)

#### Set 1

- A - car race (120 db)
- B - helicopter (120 db)
- C - jet taking off (140 db)
- D - thunderclap (120 db)

#### Set 2

- A - conversation speech (60 db)
- B - electric shaver (60 db)
- C - piano practice (65 db)
- D - dishwasher (60 db)

### GAME ROUNDS (6)

#### Set 1

- A - rustling leaves (20 db)
- B - watch ticking (10 db)
- C - whisper (30 db)
- D - quiet office (50 db)

#### Set 2

- A - shotgun blast (160 db)
- B - trains (140 db)
- C - rock concert (120 db)
- D - jack hammer (120 db)

#### Set 3

- A - hair dryer (80 db)
- B - toilet flushing (75 db)
- C - vacuum (70 db)
- D - blender (88 db)

#### Set 4

- A - balloon pop (140 db)
- B - air raid siren (125 db)
- C - ambulance (120 db)
- D - car horn (110 db)

#### Set 5

- A - chain saw (110 db)
- B - motorcycle (90 db)
- C - blender (85 db)
- D - baby crying (120 db)

#### Set 6

- A - moderate rainfall (50 db)
- B - refrigerator (40 db)
- C - printer (60 db)
- D - fan (40 db)



# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

### Guess the Noise or Sound

#### Introduction

We know that noise and sound can affect our mood, concentration, and community. The goal of this activity is to think about the different sounds or noises we hear and how they affect us. We will play a game to guess a specific noise or sound using yes-or-no questions. This activity will involve a group of people guessing a noise or sound that has been written and stuck to their back. In order to figure out their word, each person will have to go around the room asking other people yes-or-no questions. They can only ask one question per person until they guess correctly or until the time is up. For example, a question someone might ask is, “Do I wake you up in the morning?” A “yes” answer could encourage that person to think about an alarm clock, garbage truck, or birds, and then ask the next person another question to help narrow down what the sound or noise might be. People should ask many creative questions to help them guess, but **should ask only one question per person**. When someone guesses correctly, that person should shout out the answer! The list of noises and sounds are shown below.

#### Preparation

- ▶ Write out the noises and sounds (list below) on name tag stickers.

#### Instructions

- ▶ Separate the name tags and place them face down on a table.
- ▶ Allow each person to take one name tag.
- ▶ Each person will stick the name tag on another person’s back.
- ▶ Make sure the person getting the name does not see the name tag.
- ▶ Have everyone walk around the room and find a partner.
- ▶ Each person should ask one yes-or-no question to their partner about the noise or sound on his or her back.
- ▶ Then, move on and find another partner.
- ▶ When everyone is done, ask everyone to return to their places and sit down.



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#### LIST OF NOISES AND SOUNDS

##### Noises

Airplane	Bulldozing
Train	Static
Blender	Jackhammer
Dog barking	Lawn mower
Motorcycle	Radio static
Ambulance	Whispering
Thunder	Machinery
Typing	Firecracker
Gunshot	Washing machines
Coffee maker	Leaf blower
Stomping	Garbage truck
	Alarm clock

##### Creaky floor

Vacuum  
Snow plow  
Snoring  
Phone ringing  
Baby crying  
Loud chewing

##### Natural Sounds

Waterfall  
Rainfall  
White noise  
Birds singing  
Bonfire, fire crackling  
Ocean  
Bird chirping  
Crickets  
Leaves rustling in wind  
Cat purring  
Waves lapping on shore



# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

### Meditation

#### Introduction

**M**editation can mean different things to each and every one of us. Some of us do something to relax daily or maybe not often enough. This activity will introduce individuals to meditation with local noises or sounds. Meditation is commonly used to relieve stress, exercise mindfulness, and connect to nature and/or to oneself. This sort of activity works well with people who are stressed and may need to find a better way to relax. Here we share an example from St. Paul, Minnesota. Notice how we use local sounds from nature (like the Common Loon) to further connect people with nature right in their own backyards!



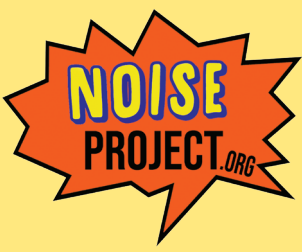
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#### Materials

- ▶ Colored pencils, markers, and/or crayons
- ▶ Video: Video of Loon calls: <https://www.youtube.com/watch?v=LD2lFLyjGAY>  
Feel free to replace this video with soothing or interesting natural sounds from your neighborhood. Another great option is to use the calming sounds of “plant music” shared by our community partners in San Diego, the WorldBeat Center: <https://noiseproject.org/plant-concert-series-moringa-tree/Y>
- ▶ Coloring pages (coloring pages focused on local images are best). The first two links are focused on Minnesota and the last link is focused on feeder birds found throughout the U.S):  
<https://www.crayola.com/free-coloring-pages/print/minnesota-coloring-page/>  
<https://powerdreamteam.info/minnesota-state-symbols-coloring-pages/>  
<https://www.birds.cornell.edu/home/wp-content/uploads/2018/10/ColoringBook.pdf>
- ▶ Writing questions written out on PowerPoint slides or chart paper:  
An **Eden** is considered a place that is considered a paradise, somewhere beautiful and peaceful.  
When you think about the word Eden, what place pops up in your head?  
Where is your Eden?  
What does it look like, smell like, sound like, and/or feel like?  
Why is it your Eden?  
A **Noise Refuge** is a place where you can get away from noise and connect with nature.  
When you think about a Noise Refuge, what place pops up in your head?  
What does it look like?  
What does it sound like/or feel like?  
Why is it your Noise Refuge?

#### Directions

Make sure everyone in the group has enough space and is comfortable. The leader of the activity might say, “We would like to give you some time to recharge your battery by giving you the opportunity to do something of your choice. We have coloring pages—yes, adults can color too!, you can draw, you can answer some suggested questions that we have through some writing, or you can put your head down and close your eyes. While you enjoy your activity, we will be playing some soothing sounds. Take this time to appreciate the downtime in the midst of a busy day.



# LET'S TALK ABOUT NOISE!

## EDUCATIONAL ACTIVITIES TOOLKIT

## Equity: Step forward, Step Back

### Introduction

Inspired by the Privilege Walk Activity, this activity will focus on noise pollution. Many of us understand noise pollution, but some of us may not recognize how the effects of noise pollution may be different for everyone. Some of us may be in better circumstances that help us avoid or mitigate our problems around noise pollution, while others do not have that advantage. Although some people may have more privileges or obstacles than others, no one should feel guilty or ashamed about it. Rather, we should engage in conversation about what we can do to help others regarding noise pollution.

Throughout this activity, the statements below are read by a leader, and the participants take a step forward or backward according to their responses. The purpose of the game is to have participants reflect the different aspects of their lives regarding noise pollution.

Adapted from the Privilege Walk Activity by the University at Albany, State University of New York.

### Materials

- ▶ List of statements on next page.
- ▶ Large space for everyone to form a straight line with arm's length between each other. Make sure there is enough space for the line to move forward 10 steps and backward 10 steps.

### Directions

1. Explain how the game will proceed. For example, the leader should say, "Let's get everyone in a straight line. Make a straight line here (show where you want people to stand with your hand) and make sure you have enough room between each other. Please listen to the following statements, and follow the given instructions. For example, if the statement I read is: 'If you grew up near a park, lake, or river, step forward,' only those who grew up near these environments will move and everyone else will stand still. Each step should be an average-length step. This activity will be done silently. Follow these directions until all 20 statements are read. Afterwards, we will process the activity with some questions."
2. Have participants form a straight line. Make sure they have enough space to take 10 steps forward and 10 steps backward and there is enough room between each other
3. Read the 20 statements to everyone.
4. Participants should follow the direction given (e.g., step forward or backward) when the statement is true for them. The steps should be an average-length step.
5. Allow time for participants to take a step after reading the statement aloud.
6. Make sure the exercise is done silently.



*Continued on next page.*



7. When all the statements have been read, process the activity using the following questions:
  - Are you surprised at where you are standing?
  - Is anyone willing to share why they are where they are standing?
  - How does it feel to see where everyone ended?
  - What have you learned from this activity?
  - Has the activity changed your perspective about the effects of noise pollution on different people?

## List of Statements

1. If you have an understanding about noise pollution, step forward.
2. If you grew up near a park, lake, or river, step forward.
3. If you grew up in an urban setting, step back.
4. If there have been times where you could not sleep because of the noise outside, step back.
5. If there have been times where you used meditation or yoga to relax, step forward.
6. If you live near train tracks or an emergency vehicle station, step back.
7. If you have a quiet place at home, step forward.
8. If you work in a place where immediate noise is harmful, step back.
9. If your family has health insurance, step forward.
10. If you have a place to go as a noise refuge, step forward.
11. If you ever lost concentration or stopped working or studying at home because of noise, step back.
12. If live near an airport or have an airplane traffic route over your home, step back.
13. If you have access to a hearing checkup, step forward.
14. If you frequently hear yelling and fighting in your home or neighborhood, step back.
15. If you would never think twice about calling the police due to unwanted noises outside, step forward.
16. If the noises you hear during your commute to work create physical or emotional discomfort, step back.
17. If you live in an area where you do not hear frequent car traffic nearby, step forward.
18. If you or anyone in your family have suffered hearing loss, step back.
19. If you have access to earplugs or noise-reducing headphones to use in a loud environment, step forward.
20. If you or someone you know ever felt unsafe due to noises in your neighborhood that create emotional discomfort, step back.