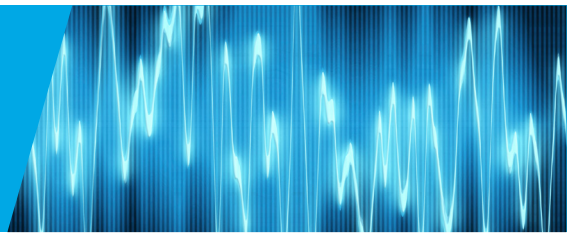
CURIOSITY AT HOME

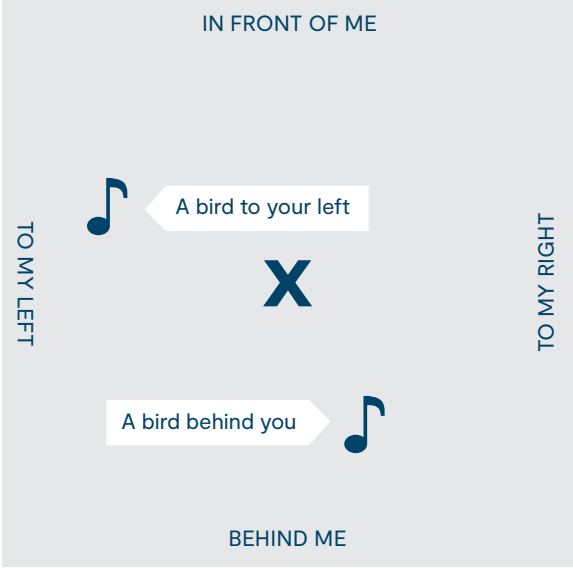
OBSERVATIONS IN SOUND



By closely observing and documenting what is happening all around us, scientists understand and learn about our world. While many observations are made with our eyes, we can use all of our senses to make observations. ***Make a sound map*** *to practice using your ears to make observations.*

MATERIALS

- Clipboard or other hard writing surface
- Paper or science notebook
- Pencil, pen, or marker



PROCEDURE

1. Find an outdoor space to sit with a clipboard, pencil and paper.
2. Draw an X in the middle of the paper to represent you.
3. Label the four edges of the paper:
   a. In front of me (top of paper)
   b. To my right (right edge)
   c. Behind Me (bottom of paper)
   d. To my left (left edge)
4. Listen carefully to all of the sounds you hear around you. You can close your eyes to concentrate on the sounds if it helps.
5. If you hear a sound around you, think about where the sound came from. Draw a picture or symbol to represent the sound you heard on the paper in relation to where you are (example: If the sound is behind you, you would place the symbol towards the bottom of the paper).

   Examples of symbols, waves could represent running water, a bird chirping could be music notes, or a car horn could be a little car picture.

EXPLORE MORE

Soundscape scientists use sound to understand the world. Through a citizen science project, Record the Earth, people can record the sounds around them and add them to a database that scientists are using to study sounds all around Earth.

- Explore the sounds of the globe that citizen scientists have shared through the *Record the Earth* website – https://www.recordtheearth.org/
- Help scientists by uploading your own recording of the sounds in your community by through the Record the Earth app (available for Android and iPhones).

Experiment continued on next page...

@pacsci

Show us how you're being curious! Share your results with us.

PACIFIC SCIENCE CENTER

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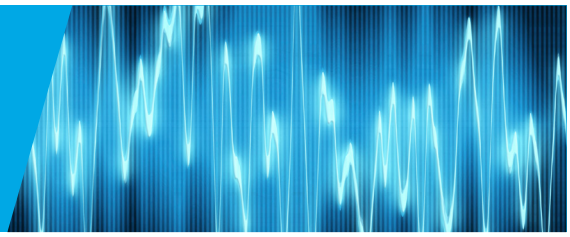

K–2 GRADE EXPLORATION

- What sounds did you hear?
- Did you hear anything that you didn't hear or notice before?
- Were there sounds made that you were unsure about what was making them?
- What might be present on your sound map if you made another map at the same location at a different time of day?

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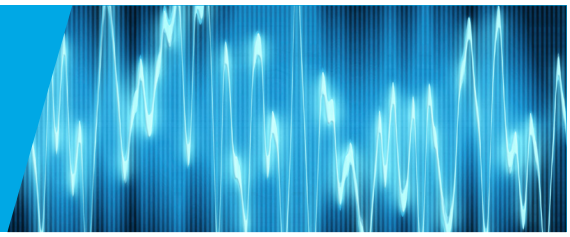


3–5 GRADE EXPLORATION

Scientists classify sounds in three categories:

- Biophony – sounds made by animals
- Geophony – sounds made by Earth
- Anthrophony – sounds made by humans or machines

What sounds did you hear? Write each sound you heard the in the correct category.

Biophony	Geophony	Observations

Where these sounds that got louder or quieter while you were listening?
If so, why do you think they changed?

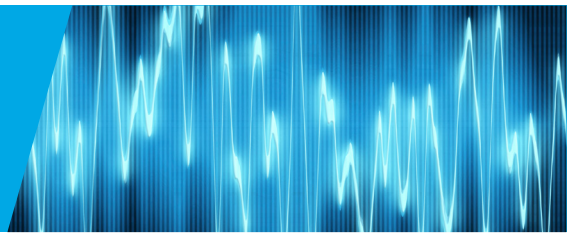
What does your sound map tell you about this area?

What might be present on your sound map if you made another map at the same location at a different time of day?

How do you think your sound map would be different if it were made in the same location 50 years ago? 100 years ago?

CURIOSITY AT HOME

OBSERVATIONS IN SOUND



6–8 GRADE EXPLORATION

Scientists classify sounds in three categories:

- Biophony – sounds made by animals
- Geophony – sounds made by Earth
- Anthrophony – sounds made by humans or machines

What sounds did you hear? Write each sound you heard the in the correct category.

Biophony	Geophony	Observations

Where these sounds that got louder or quieter while you were listening?
If so, why do you think they changed?

What does your sound map tell you about this area?

What might be present on your sound map if you made another map at the same location at a different time of day?

How do you think your sound map would be different if it were made in the same location 50 years ago? 100 years ago?