What We've Learned:

- Biologists use special tools to collect sound samples in the ocean.
- Healthy coral reefs sound different than impacted coral reefs.
- Sounds mix to create a soundscape and can be categorized by their source.
- The types of sounds present in a reef ecosystem provide clues about its overall health.
- Sounds can be identified by frequency and loudness.

Constructing Mental Models

Use the data, observational evidence, and patterns you collected and identified to create a mental model to help you distinguish between anthrophony, biophony, and geophony.

Create a framework or set of rules that would help you characterize an unidentified sound?

Use your descriptions on the previous page to create a mental model or framework to help you characterize a sound as anthrophony, biophony, or geophony.

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- Defining characteristics can be used to distinguish between biotic, abiotic, and anthropogenic sounds.

Testing Models

Listen to each of the sounds provided.

As you complete the table, listen for defining characteristics of geophonic, biophonic, and anthrophonic sounds.

Check your answers and consider your results.

Use your model as a tool to characterize sounds as anthrophony, biophony, or geophony.

Sample	Anthrophony Biophony Geophony	Evidence to support your categorization
A		
B		
C		
D		

How many sounds did you characterize correctly? Is there any additional evidence you should consider when categorizing sounds?

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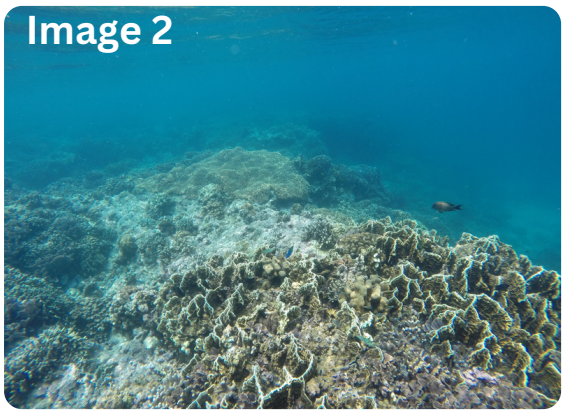
Conclude & Explain

Listen again to the sound samples collected from the coral reefs from the beginning of the lesson.

After listening to the sound samples, complete the table below.

Big Question: Why do healthy coral reef ecosystems sound different than degraded reef ecosystems?

Coral Reef	Is this most like Reef A or B? Why?	What types of sounds would you expect to hear?
		
		

Obtaining, evaluating, and communicating information
Constructing explanations