

NEW BEDFORD WHALING MUSEUM

WHALES GIANTS OF THE OCEAN

Facilitator's Guide - Lesson 8.3 What Sounds Do Whales Make?

Lesson time: 45 minutes



The ocean is a noisy place. Natural events, like lightning, and many ocean animals, like whales, make sounds. This activity will introduce students to the wide variety of sounds made by these marine mammals.

WELCOME!

This facilitator's guide will assist you as you lead *Whales: Giants of the Ocean* **What Sounds Do Whales Make?** It includes content and links to resources that can be used to present the material to students. All resources listed can be found on the New Bedford Whaling Museum education website at www.educators.whalingmuseum.org/

GUIDING QUESTION(s)

Does each species of cetacean create its own sound?

Do the two major groups, baleen whales and toothed whales, have distinctly different sounds?

BY THE END OF THIS LESSON, STUDENTS WILL BE ABLE TO:

Distinguish low-pitched whale sounds from high-pitched whale sounds

Understand the terms used to label the sounds

Understand which cetacean group creates each of the sound categories



KEY TERMS

Click, Tone, Whistle, High-pitched, Low-pitched



BACKGROUND INFORMATION

The recording of marine mammal sounds started in the late 1940s. Since then thousands of recordings have been made. These recordings have advanced the study of whales, dolphins and porpoises. One thing that has been learned is that baleen whales make lower frequency sounds and baleen whales make higher frequency sounds. The variety of sounds is impressive. This activity makes use of a website that provides easy access to dozens of species and hundreds of sound files.



MATERIALS NEEDED

- Copy of [Sounds Information Table](#)
- Pencils
- Speaker system to broadcast the sound files



ACADEMIC STANDARDS

NGSS| LS1.D, Cross Cutting Practices: Structure and function

COMMON CORE| **ELA** RI.4.4, RL.4.7, SL.4.1, SL.4.2, W.4.1, W.4.2, W.4.3, W.4.4

LESSON DIRECTIONS



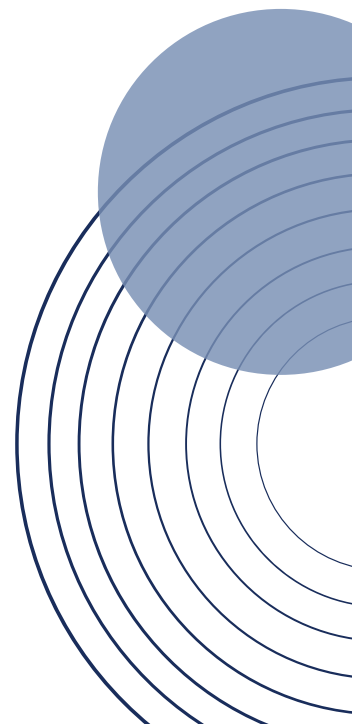
INTRODUCTION

This activity will introduce students to a wide variety of cetacean sounds. These sounds are often categorized as clicks, whistles and tones. Students will know what a click is, and what a whistle is. Tell them that any other sound that they hear can be classified as a tone.



ACTIVITY

- Open the link to the [Watkins Marine Mammal Sounds Database](#).
- Or, use slide 2 in the [Lesson 8.3 slide deck](#).
- Choose a species and tell the students to write down the name of that species on their [Sounds Information Table](#).
- Next to the name, have them write toothed or baleen to denote how it gets its food (or they can abbreviate T or B).
- Click on the photo.
- Once the page has loaded, choose a sound file that is between 4 and 40 seconds in length. Press the play arrow.
- Have the students listen to the sounds and mark on their Sounds Information Table what they are hearing.
- Do this for 5-6 species.
- Have the students answer the questions at the bottom of the sheet, below the data table.





WRAPPING UP

- The ocean is a noisy place, even when people aren't adding noise to it. Go to slide 3 of the [Lesson 8.3 slide deck](#) and click on the Audio Gallery link. Explore some of the sounds in this extensive gallery.



Have more time?

Try these additional activities to help students further understand cetacean sounds. The DOSITS site includes spectrograms that show what sounds waves look like.

- [DOSITS Audio Gallery](#)
- [CETUS Voices in the Sea](#)

Need Additional Resources?

[Time for Kids - Ocean Commotion](#)

