



## KIDS ENVIRONMENTAL LESSON PLANS

This lesson plan developed by:



# Seeing with Sound

### Overview:

Echolocation allows species to accurately locate food and other objects in the ocean by producing and channeling sound pulses that we hear as “clicks.” These “clicks” are channeled by fat deposits in the brain case of toothed whales, such as dolphins and belugas! This fat deposit is called a melon – the large bulge in the front of a dolphins’ head. There is another fat deposit in the lower jaw behind an area of the jaw where bone is very thin. The fat deposits help direct and receive the clicks.

### Ocean Literacy Principles:

5. The ocean supports a great diversity of life and ecosystems
6. The ocean and humans are inextricably interconnected

### Materials:

- Metal slinky
- Mouthwash cleaner

### Set-up Prior to Activity:

Clean the first few loops of the metal slinky with mouthwash.

### Duration:

10 minutes

### Physical Activity:

Low

**Activity:**

Carefully and gently bite a few clean loops of the metal slinky near the end. Allow the rest of the slinky to drop down and hang in front of you. With the slinky hanging in front of you, gently run your hands up and down the part hanging to cause vibrations. Do you hear and feel the sound in your head transmitting through your jaw?

**Discussion:**

You are experiencing the closest thing to echolocation! The sound you hear is being transmitted by vibrations through your jaw and sending the equivalent of “clicks” to your brain. See if you can find other species that use echolocation. It is a cool way to navigate.

How does noise pollution impact echolocation or communication in the ocean? Ocean noise pollution comes from human activity such as commercial shipping, seismic surveys, oil exploration, and military sonar. All of these noises can prevent whales from hearing their prey or predators, finding their way, or connecting with mates, group members or their young.

*This activity was contributed by Sailors for the Sea Skipper, D’amy Steward.*

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