

# Dolphin Polo



## Objective

The student will play a game to experience how dolphins use echolocation to find their food.

## Materials

- A large play area, at least 6 by 9 m (20 by 30 ft.)
- Five blindfolds
- Copy of page 2

## Background

Dolphins make clicking sounds that they send through the water. When the clicks hit an object, the sound waves bounce back, or “echo,” to the dolphin. This activity is called echolocation. A dolphin can get a lot of information from these echoes. For instance, a sound that bounces off a rock is different from a sound that bounces off a fish. Echoes from near objects bounce back faster than echoes from far objects. So, dolphins can use echolocation to tell how far away an object is, how big it is, what shape it is, and if it’s moving. Echolocation helps dolphins stay together, find food, avoid predators, and steer through dark, murky water.

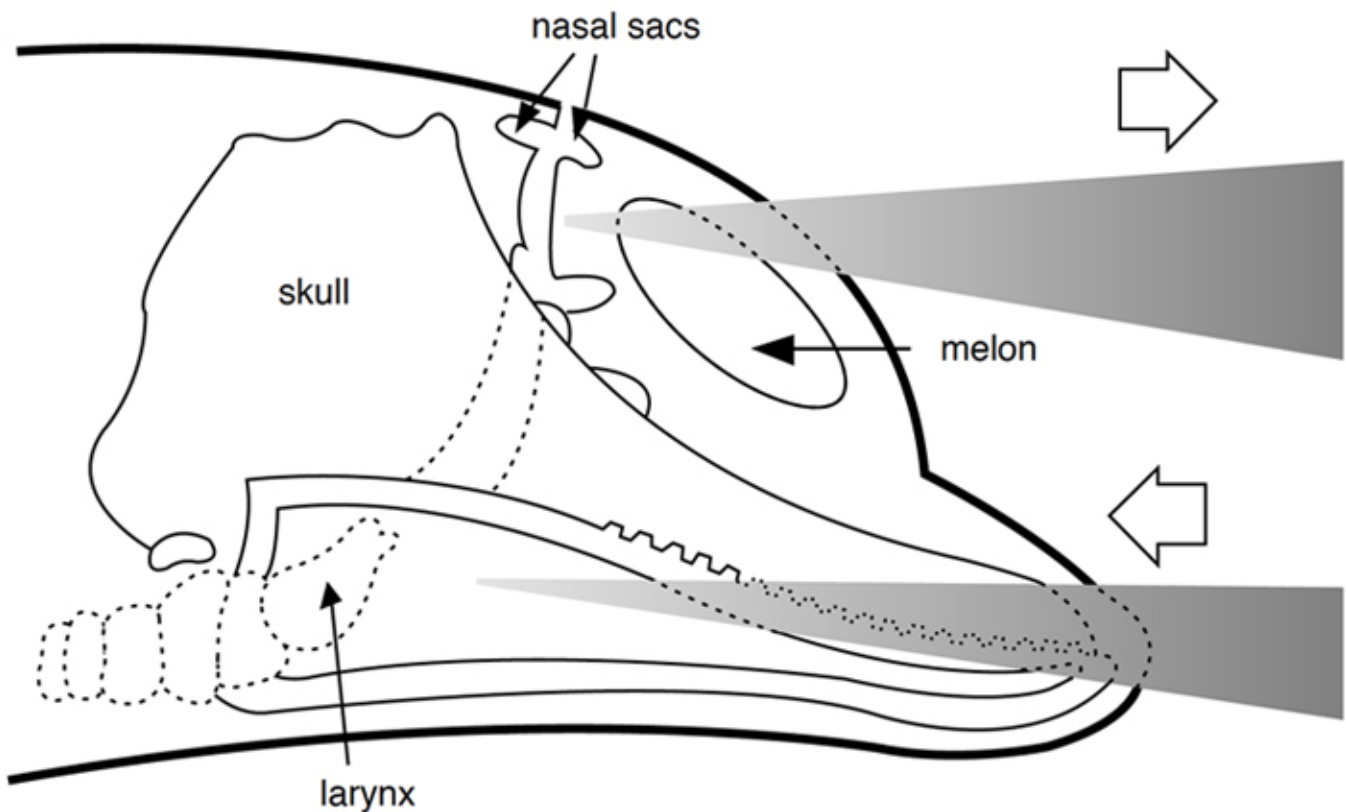
## Action

1. Write on the board or show the word echolocation. Circle the two smaller words: echo and location. Ask students if they know what each word means. Explain that dolphins find food and each other by using echoes. Echolocation is a way that dolphins “see” by using sounds. Show page 2 to help illustrate echolocation.
2. To begin the game, have the students hold hands and form a circle about 3 to 4.5 m (10 to 15 ft.) across. Blind-fold a volunteer “dolphin” and steer him or her to the center of the circle. Choose five students to be “fish.” “Fish” stand inside the circle.
3. Explain that the game Dolphin Polo is played like “Marco Polo.” The dolphin calls out “dolphin” (similar to real dolphins sending out clicking sounds), and the fish respond by calling “fish” (similar to the echoes that bounce back). The dolphin tries to find the fish by following the sounds of their voices. When the dolphin tags a fish, the fish sits outside the circle.
4. After a few minutes, call a time-out and ask the students what would help the dolphin catch the fish. In the ocean, dolphins hunt together in pods. Add a few blindfolded dolphins to the center of the circle and see if the hunting gets any easier.

# Dolphin Polo



1. A dolphin sends “clicks” into the water through its melon.
2. The clicks hit an object, then bounce back to the dolphin.
3. The echoes reach the dolphin’s lower jaw.
4. The echoes from the object tell the dolphin the object’s size, shape, and location.



A dolphin creates sounds by moving air between nasal sacs that lie beneath its blowhole. The clicks pass through the fat-filled melon (the rounded region of a dolphin’s forehead) and are focused into a beam that is projected forward into the water. The sound waves in this beam bounce off objects in the water and return (to the dolphin) in the form of an echo, which is received by the dolphin’s lower jaw.