

# **OYSTER TAG**

This lesson plan developed by:



#### Overview:

Oysters are filter feeders that consume nutrients by straining suspended matter and food particles (ex. plankton) from the water column. These shellfish can help improve water quality by cleaning the surrounding water. Under certain conditions, a single oyster can filter up to 50 gallons of water per day. Oysters also indiscriminately remove toxins and pollutants from the marine environment. Humans polluting waterways can have a negative impact on these filter feeders and therefore our waterways. Through a modified game of tag, children will learn the impact of pollution on oyster reefs, and the effect of oysters on pollution.



#### **Materials:**

• Enough space to run around with a group of kids

#### **Duration**:

20-50 minutes, depending on how long the kids can play tag

## **Physical Activity:**

High

## Oyster Tag (cont.)



#### **Background:**

Today, oysters have vanished from many of their former strongholds, in part due to overharvesting, but also due to increased pollution. Oysters are filter feeders, meaning they stay in one spot and get whatever nutrients they can out of the water that passes through their systems. Unfortunately, in addition to nutrients, they also indiscriminately consume any toxins and pollutants in the water. An onslaught of this kind of harmful material can eventually kill an entire reef, which can be home to a host of creatures from tiny invertebrates to large fish that use the reef for food and shelter.

#### **Activity:**

- 1. Choose two students in the group (or just one if it is a smaller group) to be Toxic Waste (Toxic Waste is "it"). The remaining students are all Happy Oysters. Happy Oysters run around in an attempt to stay away from Toxic Waste and becoming a Sad Oyster. They should display their Happy Oyster status by calling out "happy oyster, happy oyster!" and flapping their hands in imitations of bivalves. Toxic Waste should display their status by calling out "toxic waste" in a foreboding voice.
- 2. Toxic Waste attempts to tag as many Happy Oysters as possible.
- 3. If a Happy Oyster is tagged by Toxic Waste, he/she becomes a Sad Oyster. A Sad Oyster must freeze and display their status by calling out "sad oyster!"
- 4. A Sad Oyster can be unfrozen and become a Happy Oyster once again if two Happy Oysters join hands around the Sad Oyster, chant "happy oyster" three times while doing a Happy Oyster dance. (You can make up your own Happy Oyster dance).
- 5. If a single Happy Oyster is tagged three separate times, he/she becomes Toxic Waste and tries to tag all the other Happy Oysters.
- 6. The game ends when all players become either Toxic Waste or Sad Oysters, and there is no one left to tag.



# Oyster Tag (cont.)



#### **Discussion:**

- What does Oyster Tag demonstrate about the effect of pollution on oysters? (Oysters can process a certain amount of pollution, but will eventually be overcome if something is not done to lessen the effect.)
- Why do two oysters need to help a sad oyster become a happy oyster again? (*Teamwork!* The more oysters there are to filter the water, the easier it is to process toxins and survive)
- Is there anything positive about oysters consuming pollution? (The shellfish can help clean polluted water)
- Would you eat an oyster that had filtered pollution or toxic waste?
- What can people do to help oysters?
- What would happen to oysters and other marine species if people continued to pollute our waterways?

### **Additional Resources:**

To learn more about filter feeders, check out the KELP activities, The World is YOUR Oyster and Clam Jigsaw. To learn more about pollution, check out the KELP activities, Who Dirtied the Water? and Shower Curtain Watershed.

### **Ocean Literacy Principles:**

Ocean literacy is an understanding of the ocean's influence on us, and our impact on the ocean. There are seven <u>Ocean Literacy Essential Principles</u> that all people of our blue planet should have an opportunity to learn and understand. This activity touches upon the following Essential Principles:

- 1. The Earth has one big ocean with many features
- 5. The ocean supports a great diversity of life and ecosystems
- 6. The ocean and humans are inextricably interconnected
- 7. The ocean is largely unexplored

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