



KIDS ENVIRONMENTAL LESSON PLANS

This lesson plan developed by:



Sustainable Seafood Matching

Overview:

Students play a matching game to learn about different fish species and whether they are sustainably harvested.

Ocean Literacy Principles:

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

Key Concepts:

Fish accounts for a large portion of global protein consumption, but fish stocks are rapidly being depleted. By eating sustainable seafood, we can ensure that fish species stay healthy in future.

Materials:

- one set of Matching Cards and Fish Key for every group
- scissors

Set-up Prior to Activity:

Print enough Matching Cards (each set is 3 sheets) for each group, and one set for your reference. If your printer prints double sided, print the background sheet on the back of each set of cards to ensure students can not see through the paper. Alternatively, use a heavier weighted paper. Cut out cards. Keep one set uncut, to use as species reference.

Duration:

50-60 minutes

**Physical Activity:**

Low

Background:

The oceans supply us with food, help regulate our climate, and supply a livelihood for millions of people. Just as important, we depend on the oceans for recreation and renewal. But our seas are not the infinite bounty they appear to be. Today, no part of the ocean remains unaffected by human activities. And among the many factors influencing our ocean ecosystems, none has a greater impact than fishing.

Humans have been fishing the oceans for thousands of years. But over the past five decades technology has allowed us to fish farther, deeper and more efficiently than ever before. Scientists estimate that we have removed as much as 90 percent of the large predatory fish such as shark, swordfish and cod from the world's oceans. In 2003, the Pew Oceans Commission warned that the world's oceans are in a state of "silent collapse," threatening our food supply, marine economies, recreation and the natural legacy we leave our children.

Ocean fish are wildlife—the last such creatures that we hunt on a large scale. And while the sheer size of the oceans is awesome, there are many signs that we have found their limits. Despite our best efforts, the global catch of wild fish leveled off over 20 years ago and 70 percent of the world's fisheries are being harvested at capacity or are in decline.

Yet there are fisheries being run in a sustainable way. We now need to improve the practices of the remaining fisheries and solve the most pressing issues, including overfishing, illegal and unregulated fishing, habitat damage, bycatch (accidentally catching unwanted species) and poor management.

Activity:

1. Divide students into groups of 2-4. Give each group a set of Matching Cards. Have them turn the cards image size down and mix them up. Then arrange into a grid.
2. One student turns over two cards. If the fish picture matches the species name, the student keeps the pair. Next student flips over two cards, and so on, until no cards remain in the grid.
 - TIP: If students do not know what a certain fish species looks like, they can use the Fish Key to learn to identify each species.
3. Once students complete their matching games, ask them to categorize the cards they have collected into fish that are sustainable, healthy choices and others that should be avoided.
4. Ask students to think about reasons why this and discuss the Seafood Watches categorizations and the reasons behind their designation as Best Choices, Good Alternatives, or Avoid. For more information on why species are classed in each category, or to download pocket seafood guides, visit http://www.montereybayaquarium.org/cr/cr_seafoodwatch/sfw_recommendations.aspx

Sustainable Seafood Matching (cont.)



Discussion:

1. Most fisheries are regulated by governments to make sure not too many fish are taken, but these fisheries often are still depleted or destroyed. Why could this be?
2. Do you think commercial fish-farming could help ensure we have fish to eat for many years to come? Why? What might some potential problems with aquaculture be?

Further Your Impact with Sailors for the Sea Powered by Oceana:

As sailors and water-lovers, you are among the first to notice changes to our seas such as fewer marine animals, more pollution and damaged marine habitat. Through our Green Boating initiative, Sailors for the Sea Powered by Oceana provides opportunities for you and your community to address pressing ocean health issues. As a Green Boater, you will be provided with the information, resources and access to combat marine plastic pollution, prevent habitat destruction, source responsible seafood and protect marine animals. From demanding plastic-free alternatives to choosing sustainable seafood, your voice and actions are an important part of restoring the abundance of our oceans and protecting marine habitats. [Join our growing Green Boating Community today.](#)

34 - 55 in



Mahi - mahi



11 - 39 in

Haddock



3 - 7 ft

Halibut

Salmon



33 - 36 in



2 - 4 in

Shrimp

23 - 27 in



Cod



4 - 6 in

Crab

Tuna



2.5 - 7 ft



3 - 6 ft

**Chilean
Sea Bass**

Caviar



.5 - 3 mm



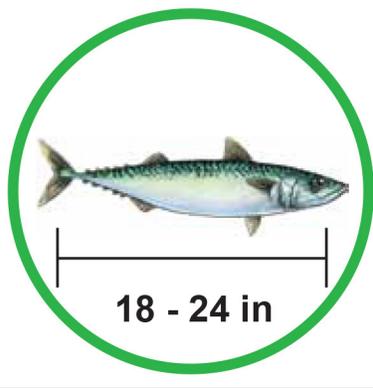
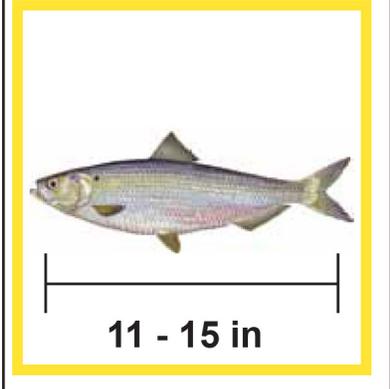
Clam

Flounder



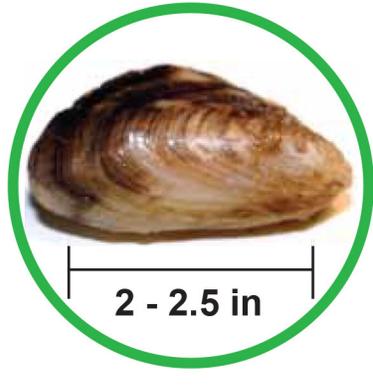
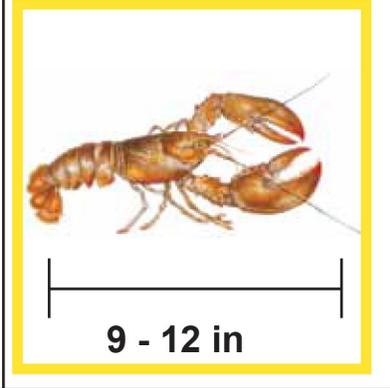
Grouper

Herring



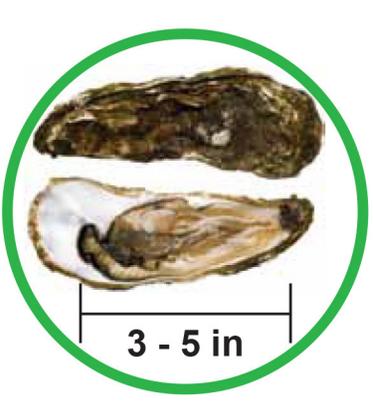
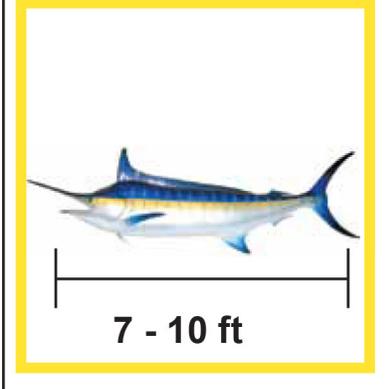
Mackerel

Lobster



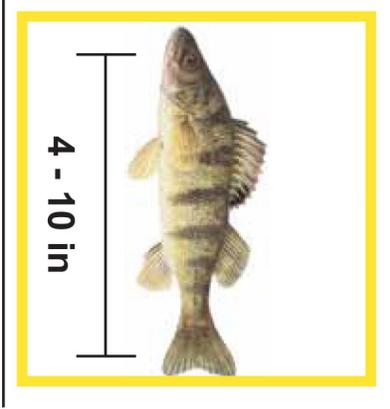
Mussels

Swordfish



Oyster

Perch

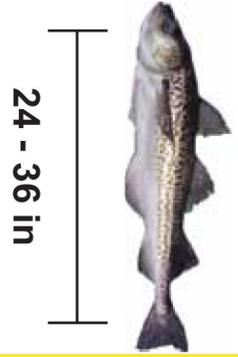




3 - 7 in

Scallop

Pollock



24 - 36 in

Sardine



6 - 9 in

Snapper



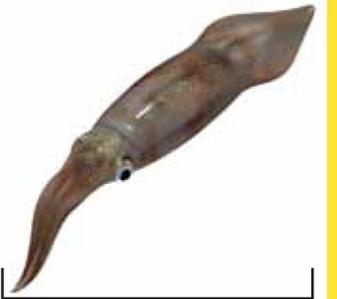
11 - 24 in



13 - 16 ft

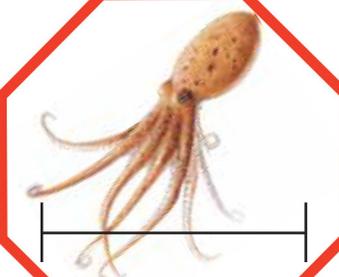
Shark

**Squid /
"Calamari"**



3 - 6 in

**Common
Octopus**



12 - 36 in

Sea Urchin



1 - 2 in



3 - 5 ft

Wahoo

Skate



25 - 29 in



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