



Eating HEART HEALTHY

Seafood In Schools

Lesson Plan: Seafood Nutrition



**SEAFOOD
NUTRITION
PARTNERSHIP**

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Learning Outcomes

Following this lesson, students will be able to:

- Understand the health and nutritional benefits associated with eating seafood.
- Identify the top 10 seafood consumed in the U.S.
- Recognize a variety of seafood that is available for consumption.





Seafood



A Heart Healthy Protein





Seafood Recommendation

Choose seafood at least twice a week as the main protein food.

Choose seafood
in place of meat,
poultry or eggs

Look for seafood
rich in omega-3
fatty acids.




Try a variety of
seafood.





Why is it important to eat seafood every week?

Seafood supplies the nutrients essential for strong bones, brain development, and healthy immune and cardiovascular systems.

- 
Builds a HEALTHY BRAIN!
- 
Builds a HEALTHY HEART!
- 
Builds STRONG BONES AND MUSCLES!





Nutritional Benefits

Seafood contains a range of nutrients, notably the omega-3 fatty acids, EPA and DHA.

Additional nutritional benefits:

- A good source of lean protein
- Low in saturated fat
- Rich in vitamins and minerals





Seafood and Omega-3s

► **Seafood and Omega-3s Play an Important Role in a Healthier Tomorrow.**



Our eyes depend on Omega-3s for their sensory function.

Nearly half of our eye's light detecting cell structure are made of Omega-3s.



A third of the brain's key functional units are made up of Omega-3 fatty acids.

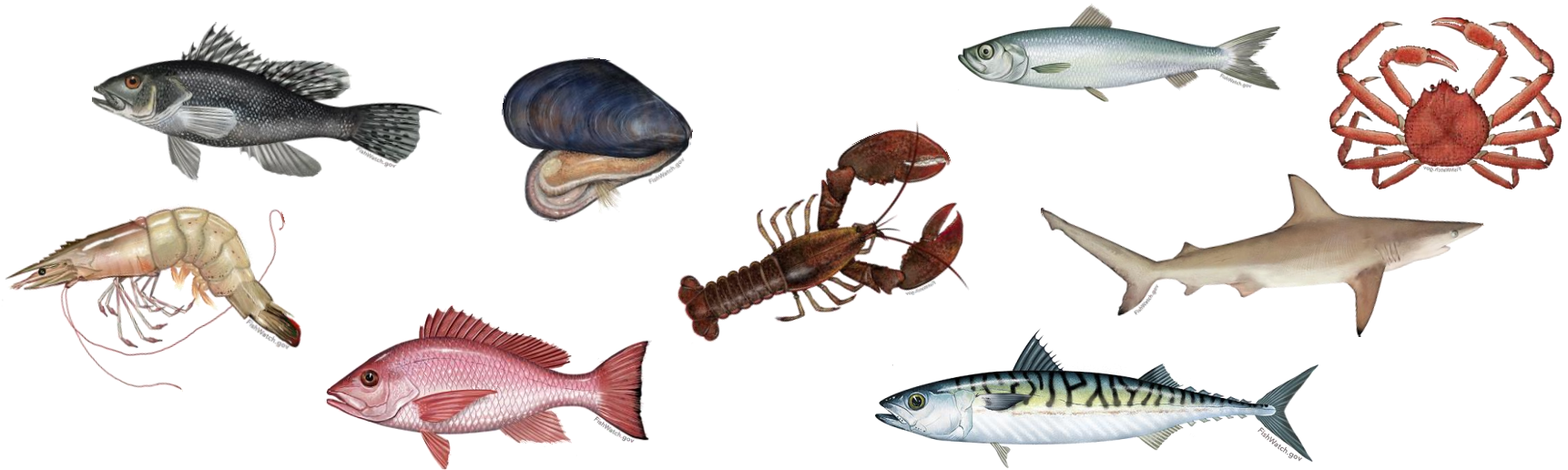
Omega-3s EPA/DHA are:

- Anti-inflammatory
- Beneficial to heart health
- Critical for brain development

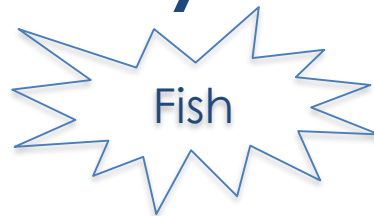




There are many different types of seafood



**Can you name the two categories
you see above?**





Fish

Fish are cold-blooded, aquatic vertebrates, having gills, commonly fins, and typically an elongated body covered with scales.

White fish – freshwater fish that live on or near the seafloor. Referred to as white fish due to their dry and white flesh.

Examples: cod, haddock, pollock

Oily (or fatty) fish – are typically cold-water fish that are rich sources of omega-3 fatty acids. These fish serve great as part of a heart healthy diet.

Examples: salmon, tuna, sardines, mackerel, and trout





Shellfish

Shellfish are aquatic invertebrates having a shell, including various species of mollusks and crustaceans.

Mollusks - shellfish with soft bodies that are covered by at least one shell.

Examples: clams, mussels, oysters, scallops, squid (calamari)

Crustaceans - shellfish that have long bodies with jointed limbs covered with a shell.

Examples: crabs, crawfish (or crayfish), lobster, shrimp





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Match the type of fish to each dish.

White fish

Oily/Fatty fish

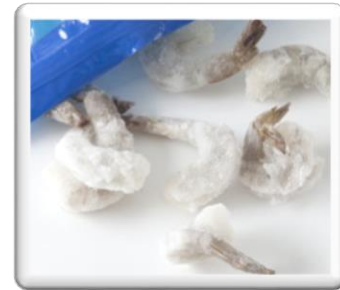
Shellfish





Buying and Preparing Seafood

- Seafood is available in most stores as canned, fresh, and frozen options.
- Seafood is not only healthy and delicious – it is also very quick and easy to prepare.
- Purchase seafood from retailers that have good quality and cleanliness.





Seafood Safety: Cooking

- Cook fish to an internal temperature of 145°F. When it's done, the fish should flake easily with a fork.
- Properly cooked seafood should be moist and solid color throughout.





Seafood Safety: Storing

- Fish should be kept in the coldest part of the refrigerator below 40°F in its original packaging.
- Shellfish such as clams, oysters, and mussels should be stored in the refrigerator in open containers with clean, damp cloths placed over the shellfish.
- Live lobsters and crabs should be cooked the same day as purchased.
- Raw and cooked seafood should be stored separately.





Top Consumed Seafood in US

According to the NOAA report, overall per capita consumption in 2015 was 15.5lbs, compared to 14.6lbs in 2014.

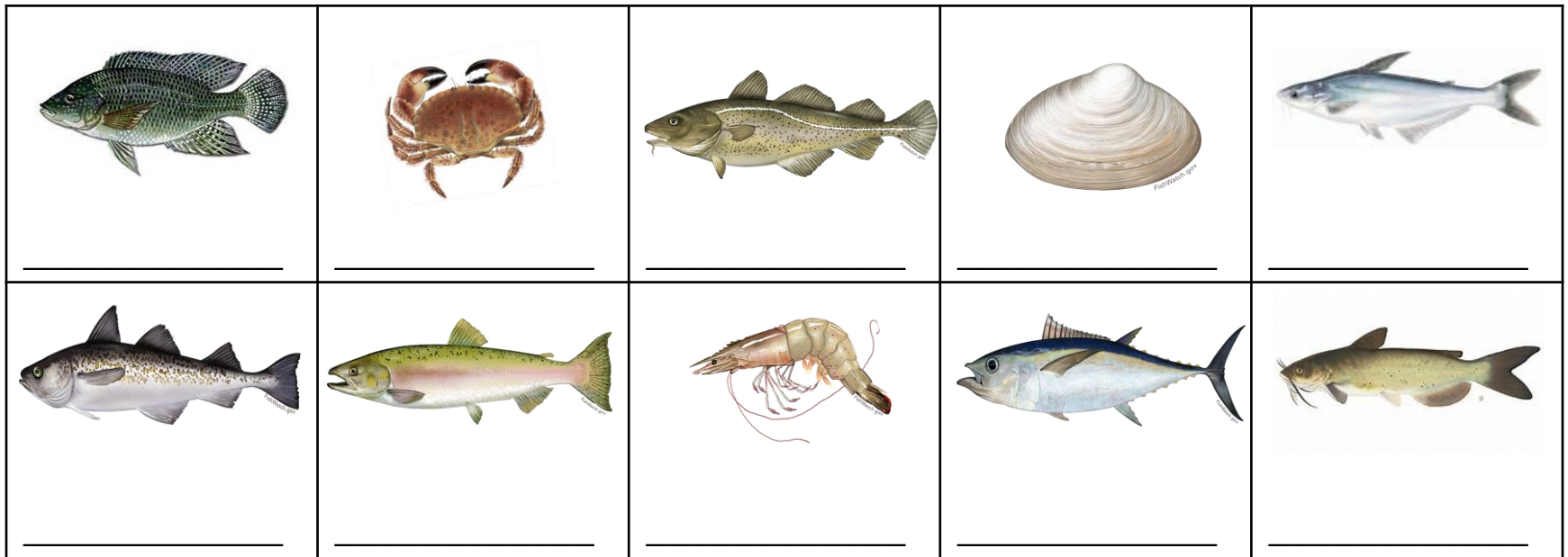
| | 2015 |
|----------------------------------|-------------|
| Shrimp | 4.000 |
| Salmon | 2.879 |
| Tuna | 2.200 |
| Tilapia | 1.381 |
| Alaska Pollock | 0.970 |
| Pangasius | 0.743 |
| Cod | 0.600 |
| Crab | 0.555 |
| Catfish | 0.519 |
| Clams | 0.329 |
| | |
| Per Capita Consumption | 15.5 |
| Total Top 10 | 14.17601 |
| All Other Species Consumption | 1.323986 |
| Top 10 as % of Total Consumption | 91.46% |

- Ten different types of fish and shellfish products represent about 90% of the seafood consumed in the U.S. and are low in mercury.
- Eat a variety of seafood to take in different levels of omega-3 fatty acids, vitamins and minerals.





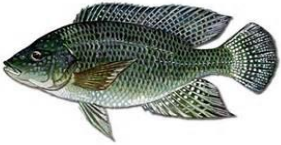









Can you identify the Top 10 Seafood?





Answer Key

Can you identify the Top 10 Seafood?

| | | | | |
|--|---|--|--|--|
|  tilapia |  crab |  cod |  clams |  pangasius |
|  pollock |  salmon |  shrimp |  tuna |  catfish |





Pop Quiz!

True or False

Fresh, canned, and frozen are all seafood options to consider to reach 2 servings per week.

TRUE

True or False

Seafood (fish and shellfish) is a source of lean protein.

TRUE





Seafood & MyPlate

- You can easily add seafood to many of your favorite dishes that usually include chicken, beef, or pork.
- Seafood along with fruits, vegetables, whole grain, and low-fat or fat-free dairy are all part of a heart healthy diet.
- Consider some of your favorite dishes and think of ways in which you can make it a heart healthy meal.





**Let's take a look at some
seafood menus!**

Activity #2





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On the blank MyPlate, mark the food groups you see in the seafood dish. Suggest items for the food group(s) that are missing.

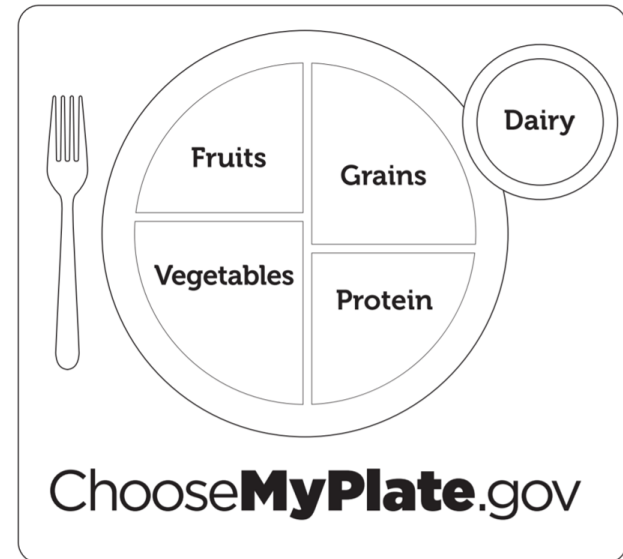


Salmon

Tomato

Pineapple

Brown Rice

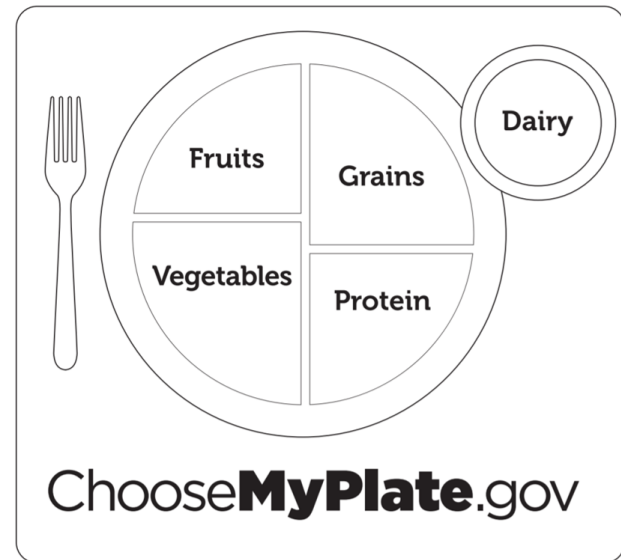




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On the blank MyPlate, mark the food groups you see in the seafood dish. Suggest items for the food group(s) that are missing.



Cod fish fingers

Yogurt dip

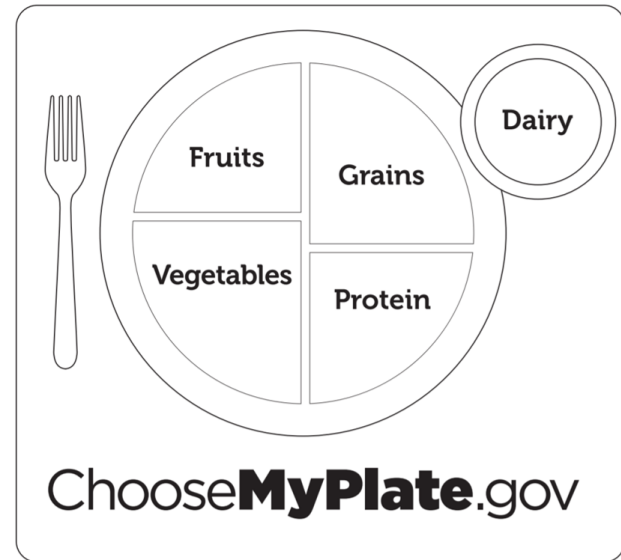




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On the blank MyPlate, mark the food groups you see in the seafood dish. Suggest items for the food group(s) that are missing.



White fish

Broccoli

Tomato

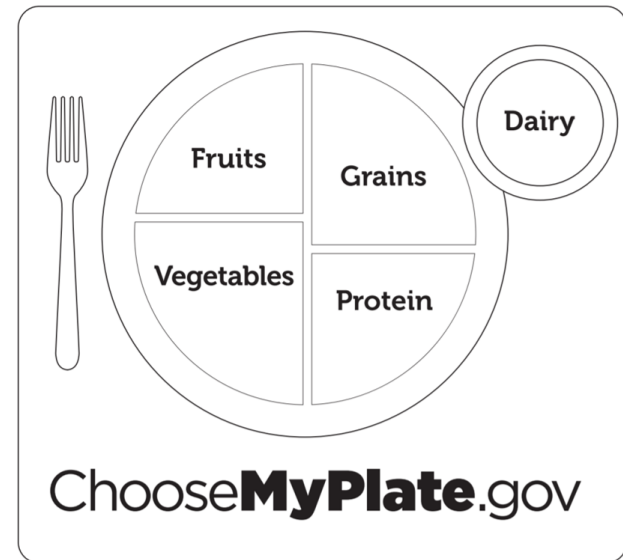




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Seafood In Schools

On the blank MyPlate, mark the food groups you see in the seafood dish. Suggest items for the food group(s) that are missing.



Canned Tuna

Kale

Tomato





You Did It!

You've completed the
Seafood Nutrition Lesson!





Optional Homework Assignments

- Find a Fish
- Create a Seafood Menu





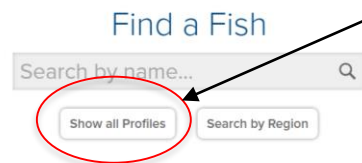
Homework Assignment #1

Instructions:

1. Ask students to research one fish and one shellfish that is not listed in the top 10 consumed in America.
2. Students will provide the name of the seafood, place of origin, a brief description, and find at least one recipe including that particular seafood.
3. Students can document their responses on the handout provided.

Resource: [Fishwatch.gov](https://www.fishwatch.gov) > Find a Fish > Select [Show All Profiles]

The nation's database on sustainable seafood



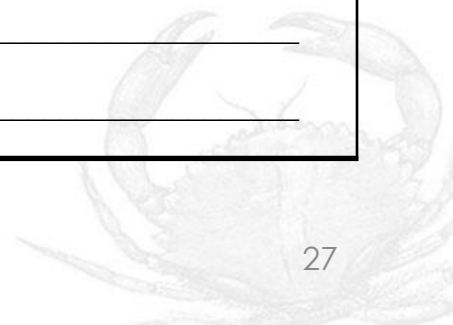


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| | |
|-------------|-------------|
| Name: _____ | Date: _____ |
|-------------|-------------|

| | |
|---|--|
| <p>Fish: _____</p> <p>Place of Origin: _____</p> <p>Brief Description (Availability, Color, Taste, Texture):</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Recipe Name & Source:</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>Shellfish: _____</p> <p>Place of Origin: _____</p> <p>Brief Description (Availability, Color, Taste, Texture):</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Recipe Name & Source:</p> <p>_____</p> <p>_____</p> <p>_____</p> |
|---|--|





Homework Assignment #2

Ask students to create a menu that includes seafood as the protein and healthy options from all other food groups.

- Include seafood (fish or shellfish) as the protein.
- Challenge students to select a locally grown fruit and vegetable.
- Choose a whole grain.
- Select low-fat or fat-free dairy.



Resource: [MyPlate Menu Worksheet](#)





We value your feedback!

Please take a moment
to complete the online survey.

Below is a survey link for students and a separate link for the instructor.

[Student Survey](#)

[Instructor Survey](#)

