

A Nutrition Education Program to promote a...

HEALTHY HEART

Teacher's Program Guide





The Seafood in Schools program is brought to you by Seafood Nutrition Partnership, an independent non-profit whose mission is to inspire a healthier America through partnerships that raise awareness about the essential nutritional benefits of eating seafood. With heart disease and obesity greatly effecting children across America, we believe that health and nutrition education is important starting at an early age. Seafood in Schools helps to provide the knowledge and skills to choose heart healthy behaviors in efforts to reduce health risks associated with chronic disease.

The Seafood in Schools supplemental curriculum is comprised of five lessons for students in Grades 3-8. The lessons were created to help teachers incorporate health and nutrition education into Math, Science, and Language Arts. To promote skills-building, it is recommended that the lessons are delivered sequentially. However, each lesson delivers useful information and can be delivered as a single one-off course.

In this Teacher's Program Guide, you will find an overview for each of the five lessons to guide you in delivering the information within your classroom. The lessons include built-in activities and homework assignments to strengthen the students' knowledge and skills for each topic. We encourage you to use the optional homework assignments, as they will provide your students with further practice and real-world experience. Be sure to let the parents know about this new program so they can reinforce the new skills at home. We have also prepared a *Healthy Plate at Home* brochure that you can provide to parents as well.

Seafood in Schools Lesson Plans:

- Love Your Heart
- Healthy Eating
- Portions Matter
- Seafood Nutrition
- Basic Culinary Techniques

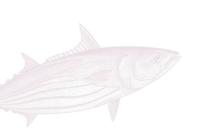








Lesson 1: Overview			
Title	Love Your Heart		
Learning Objectives	 Students will be able to: Identify key terms associated with the human body and nutrition. Understand heart disease and the associated risk factors. Recognize preventative measures that can be taken to reduce risks of chronic disease. 		
Suggested Timing	Total Time: 30 minutes • Presentation: 30 minutes		
Materials & Prep	 Suggestions: Computer for PowerPoint Presentation Projector to display the presentation Printed resources 		
Resources Note: All handouts are included at the end of the program guide or you may access them via the provided link.	Homework Assignments: 1) Internet Scavenger Hunt Worksheet 2) Your Heart Worksheet Supporting Resources: • About the Heart Handout • How Your Heart Works Handout		







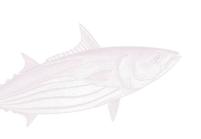
	Lesson 2: Overview
Title	Healthy Eating
Learning Objectives	 Students will be able to: Identify and define key nutrients. Understand MyPlate and describe the health and nutritional benefits of the five food groups. Choose healthy food options from each food group to meet daily nutrient and caloric needs.
Suggested Timing Materials & Prep	 Total Time: 35 minutes Presentation: 20 minutes Activities: 15 minutes Word Puzzle: 5 minutes Whole Grains: 5 minutes Crossword Puzzle: 5 minutes Suggestions: Computer and PowerPoint Presentation Projector to display the presentation Printed resources Alternative: Print lesson in booklet form for each student.
Resources Note: All handouts are included at the end of the program guide or you may access them via the provided link.	Lesson Activities: 1) <u>Fruit & Vegetable Word Puzzle</u> - <u>Answer Key</u> 2) <u>Whole Grains Lesson</u> 3) <u>MyPlate Crossword Puzzle</u> - <u>Answer Key</u>
	 Homework Assignments: 1) 5-Day Menu Planner (Attached) 2) <u>MyPlate Checklist Calculator</u> (Website)







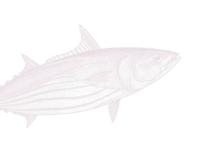
	Lesson 3: Overview
Title	Portions Matter
Learning Objectives	 Students will be able to: Understand the importance of portion sizes as it relates to total caloric intake and weight gain. Identify daily serving size recommendations from the five food groups. Recognize the categories on the Nutrition Facts label and use the label to make healthy food choices.
Suggested Timing	 Total Time: 35 minutes Opening Video: 5 minutes Presentation: 20 minutes Lesson Activity: 10 minutes
Materials & Prep	 Suggestions: Computer for PowerPoint presentation Audio capabilities Projector to display the presentation Printed resources Alternative: Print lesson in booklet form for each student.
Resources	Opening Video:
Note: All handouts are included at the end of the program guide or you may access them via the provided link.	MyPlate, MyWins: What's Your Healthy Eating Style? Lesson Activity: 1) Nutrition Facts Label Worksheet (Attached) Homework Assignments: 1) Daily Faced Covern Transity Worksheet (Attached)
	 Daily Food Group Targets Worksheet (Attached) Nutrition Facts Scavenger Hunt Worksheet (Attached)







	Lesson 4: Overview
Title	Seafood Nutrition
Learning Objectives	 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.
Suggested Timing Materials & Prep	 Total Time: 35 minutes Presentation: 15 minutes Lesson Activities: 20 minutes Top Consumed Seafood: 10 minutes MyPlate Exercise: 10 minutes Suggestions: Computer for PowerPoint presentation Projector to display the presentation Printed resources
Resources	<i>Alternative</i> : Print lesson in booklet form for each student. Lesson Activities:
Note: All handouts are included at the end of the program guide or you may access them via the provided link.	 Top Consumed Seafood Worksheet (Attached) Answer Key (Attached) Seafood Exercise with MyPlate (Attached) Homework Assignments: Fish Discovery Worksheet (Attached) MyPlate Menu Worksheet







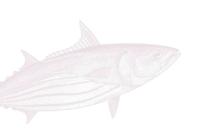
Lesson 5: Overview		
Title	Basic Culinary Techniques	
Learning Objectives	 Students will be able to: Understand basic culinary terms and measurements. Apply food safety best practices. Demonstrate basic culinary skills. 	
Suggested Timing	 Total Time: 65 minutes Presentation: 30 minutes Lesson Activities: 35 minutes Videos: 5 minutes Cooking Demonstration: 30 minutes 	
Materials & Prep	 Suggestions: Computer for PowerPoint presentation Audio capabilities Projector to display the presentation Printed resources Recipe ingredients and required utensils (refer to recipe and checklist provided) Designated prep table Alternative: Print lesson in booklet form for each student. 	
Resources Note: All handouts are included at the end of the program guide or you may access them via the provided link.	Lesson Activities:Video: Kale Tuna SaladVideo: Smoked Salmon PinwheelRecipe: Kale Tuna Salad (Attached)Recipe: Smoked Salmon Pinwheel (Attached)Recipe Scorecard (Attached)Certificate of Completion (Attached)General Resource:Basics at a Glance Poster	







Resources Lesson 1: Love Your Heart





Internet Scavenger Hunt

Class _____ Date _____

Use the Internet to complete each task below. List the search terms you used to find your answers, and provide the URL of each web site you used.

Task 1: Name 5 ingredients that can be found in most cigarettes. Search Terms: URL: Response:

Task 2: Define "cholesterol" Search Terms: URL: Response:

Task 3: How many chambers are in the heart? Search Terms: URL: Response:

Task 4: Where can you find the symptoms of a heart attack? Search Terms: URL: Response:

Task 5: Who was the first person to receive a heart transplant? Search Terms: URL: Response: Task 6: What are some of the causes of high blood pressure (hypertension)? Search Terms: URL: Response:

Task 7: How many times per day does the heart beat? Search Terms: URL: Response:

Task 8: Name and define the two different types of stroke. Search Terms: URL: Response:

Task 9: In what year was the American Heart Association founded? Search Terms: URL: Response:

Task 10: What is the difference between "saturated" and "unsaturated" fat? Search Terms: URL: Response:

Your Heart Works for You

Complete each sentence with the correct word or words. Ю The heart consists of two ______. The upper section of one side of the heart is called an _____. The lower section of one side of the heart is called a _____. The heart has a natural ______ that makes sure the heart is beating at the right speed. An electrical signal causes the atria to _____. [-] Blood goes from the heart to the ______ to get oxygen. The heart has ______ to keep blood flowing in only 70 one direction. Oxygen is sent throughout the body in blood _____. The heart beats about ______ billion times during an (\cdot) average lifetime. D You can reduce some important risk factors for heart disease by a. not_____, b. eating foods low in saturated fats and , c. watching your , and d. getting plenty of _____.







About the Heart

Do you know what your heart does?

The heart is a powerful muscle that works like a pump. With each beat, it pushes bright red blood that carries oxygen and nutrients to the body's cells. After this blood has circulated through the body, it returns to the heart. When the blood returns, it is more bluish because it has given up its oxygen. When the heart pumps this blood to the lungs, it becomes red again and the whole process starts over.

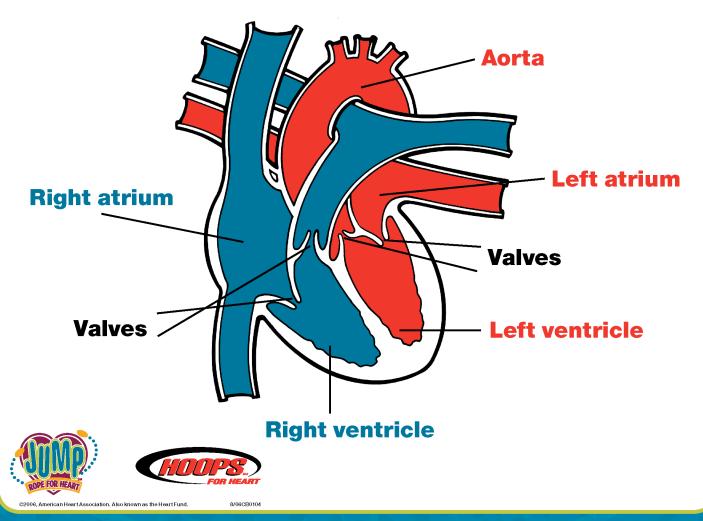
Do you know where your heart is?

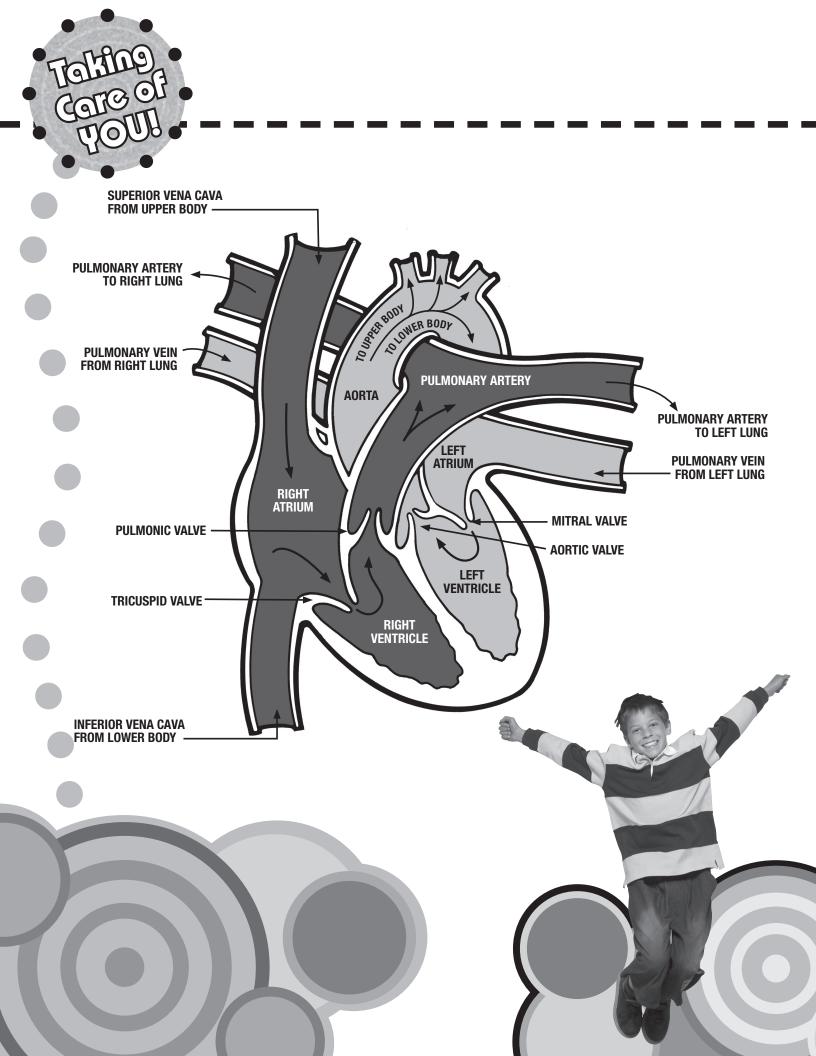
A person's heart is about the size of their fist. When you pledge allegiance to the flag, you place your hand over

the left side of your chest. That is where most people think the heart is. Actually, the heart is in the middle of the chest. It fits snugly between your lungs.

Do you know how to keep your heart strong?

Because the heart is a muscle, it should be exercised to help keep it strong and healthy. To benefit your heart, you should be physically active for 30 minutes or more a day. Resting heart rate gives a good indication of cardiovascular fitness. A normal heart beats between 50 and 99 times per minute when you're resting. As you get in better shape, your resting heart rate will go down because your heart is more efficient.







The walls of the heart are made of thick muscle. When they contract, the blood is pushed through tubes called **blood vessels**.

There are different types of **blood vessels**.

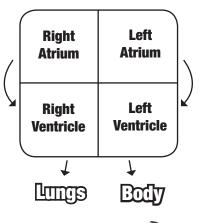
- Arteries are large, thick blood vessels that carry blood away from the heart. They are also the places where you can sometimes feel your pulse. The aorta is the largest artery.
- Veins are large blood vessels that carry blood back to the heart. Veins carry carbon dioxide, sit closer to the skin and have a bluish color.
- **Capillaries** are the smallest blood vessels. They carry blood to and from all the small places in the body. Capillaries feed into veins and veins feed into arteries.

You can think of the heart like two pumps side by side. The pump on the right side moves blood to your lungs, where waste gases such as carbon dioxide are removed and oxygen is added. Freshly oxygenated blood returns to the pump on the left side, which moves it out into the rest of your body.

Your heart is similar to a two-story house with four rooms: two rooms on the top floor and two rooms on the bottom floor. Each room is called a chamber. The right and left atrium are the upper chambers. The right and left ventricle are the lower chambers. Blood carrying carbon dioxide travels from the right atrium, to the right ventricle, then into the lungs where carbon dioxide is exchanged for oxygen. Blood carrying oxygen travels from the left atrium to the left ventricle and onward to the rest of the body.

The heart contains valves that control the blood flow direction. Think of them as doors between the rooms that open and close to let the blood flow in or to stop the blood flow.

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This activity meets the following National Standards for Physical Education:

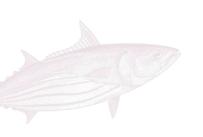
Standard 2: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

Do You Know?

When you pledge allegiance to the flag, you may place your hand over the left side of your chest because that's where most people think the heart is. Actually the heart is in the middle of the chest between the lungs.



Resources Lesson 2: Healthy Eating





Vegetables
ts and
Fruits
With
Fun
Have

Find the hidden fruits and vegetables in the puzzle. Words can read up, down or across, from left to right or right to left.

Find:	B	E4	S	щ	A	Y	Y	Р	¥	Р	
Apple Banana	R	C	Ø	Г	S	R	Ч	щ	¥	R	
Broccoli Carrots	0	H	D	Ъ	B	A	Z	A	Z	¥	
Celery Eggplant	U	Р	A	Р	¥	R	щ	Г	щ	U	
Grapes Kiwi	U	S	S	A	¥	A	M	S	H	щ	
Orange	0	A	H	щ	G	Z	¥	R	0	K	
Papaya Pear	н	щ	U	¥	R	R	0	H	S	Π	
Peas Squash	Π	Р	G	R	¥	Р	щ	S	K	M	
Yams	B	щ	G	IJ	Р	Г	¥	Z	H	H	



Name a fruit you would like to try:

How will you eat this fruit? dessert, with dinner or on (On cereal, as a snack, for pancakes.) Name a vegetable you would like to try:

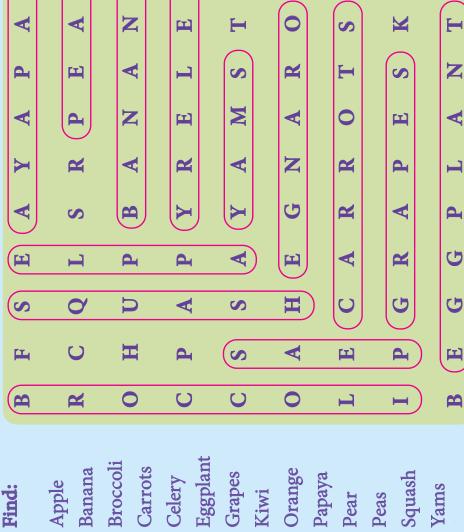
vegetable? (As a snack, with dip, or for lunch.) How will you eat this





Have Fun With Fruits and Vegetables

Find the hidden fruits and vegetables in the puzzle. Words can read up, down or across, from left to right or right to left.



Fruit and Vegetable Goals

Name a fruit you would like

to try:

Ы

2

How will you eat this fruit? (On cereal, as a snack, for dessert, with dinner or on pancakes.)

C

Y

Name a vegetable you would like to try:

M

E

How will you eat this vegetable? (As a snack, with dip, or for lunch.)

Η

H







Make Half of Your Grains Whole

Whole grains contain the entire grain kernel: the bran, germ, and endosperm.



Adapted from Team Up At Home Team Nutrition Activity Book

MyPlate Crossword Puzzle

Use the words from MyPlate to help you complete this puzzle.

Across

- as a guide. Use the My **-**
- Apples, oranges, and bananas fit into this food group. *i* io
- This sweet, smooth food comes in many different flavors and is a great way to get calcium for your bones.
 - are an orange vegetable. ∽ ∞
- foods when you can. Try fat-free or low
 - for your sandwiches. Use whole-grain_ 6
- Cheddar, swiss, mozzarella, monterey jack are examples. 11.
- Fits into the grains group of MyPlate. Goes great with stir-fry. 14.
 - to help you eat a variety of foods for a healthy body. MyPlate is a 15.
 - Spaghetti is a type of 17.

Down

- Chicken and turkey are examples of **-**
- from all of the groups. Eat a variety of i
 - Broccoli and green beans are examples of a 3.
- These are a great source of protein and can be mixed with cereal and dried fruit for an "on-the-go" snack. 4.
- Pinto, kidney, black, refried there are lots of different kinds and they can be eaten lots of different ways. ં
- are often used for cooking and are part of a healthful diet. Vegetable or olive 10.
 - This makes a quick and easy "ready-to-eat" breakfast with fruit and milk. 11.
- You can hard-boil, scramble, fry, or poach these, or eat 2 them as an omelet. How do you like your 12
 - Salmon and trout are examples of 13.
- is an excellent source of protein, iron, and zinc. Lean 16.





MyPlate Crossword Puzzle

Dairy

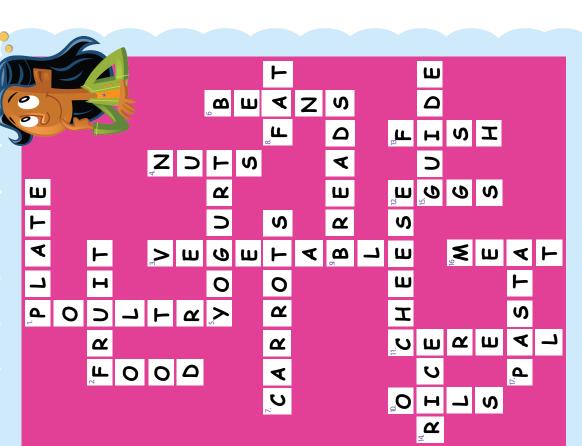
Use the words from MyPlate to help you complete this puzzle.

Across

- as a guide. Use the My **-**
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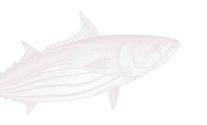
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Team Up At Home Team Nutrition Activity Book Adapted from



y 5-	Day Dinner Men	u Planner	lame:		Date:	
	Food Group	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
FRUITS	Fruits ChooseMyPlate.gov					
VEGETABLES	Vegetables					
GRAINS	Grains Kite Choose MyPlate.gov					
PROTEIN	Protein					
DAIRY	Dairy Dairy ChooseMyPlate.gov					







Resources Lesson 3: Portions Matter







Activity!

Let's practice reading and comparing two labels.

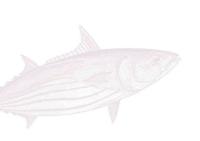
Hot Dogs (8 ct. package)

Amount Per Serving	
Calories 170	Calories from Fat 130
	% Daily Values
Total Fat 14g	22%
Saturated Fat 6	g 30 %
Polyunsaturated	i Fat <mark>0</mark> g
Trans Fat 1g	
Cholesterol 34mg	11%
Sodium 530mg	22%
Total Carbohydra	te 2g 1%
Dietary Fiber Og	0%
Sugars 1g	
Protein 8g	
Vitamin A 1%	Vitamin C -
Calcium -	Iron 4%
	re based on a 2000 calorie diet. be higher or lower depending on

Chunk Light Tuna (5oz. can)

Amount Per Serving	
Calories 50	Calories from Fat
	% Daily Values
Total Fat 1g	2%
Saturated Fat 0g	g 0%
Polyunsaturated	Fat 0g
Monounsaturate	d Fat 0g
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 180mg	8%
Potassium 100mg	
Total Carbohydrat	·
Dietary Fiber 0g	0%
Sugars 0g	
Protein 10g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 4%
	re based on a 2000 calorie diet. De higher or lower depending on

Refer to questions on the Nutrition Facts Label Worksheet







Nutrition Facts Label Worksheet

Name:	Date:
STEP 1: THE SERVING SIZE	
What is the serving size	e for hot dogs and tuna?
Hot dogs	Tuna
STEP 2: CALORIES (AND CALC	RIES FROM FAT)
How many calories pe	r serving are in each item?
Hot dogs	Tuna
How many calories from	Tuna m fat are available per serving of each item?
Hot dogs	Tuna
STEP 3 & 4: THE NUTRIENTS:	HOW MUCH?
How much sodium pe	serving are in each item?
Hot dogs	Tuna
	E FOOTNOTE ON THE BOTTOM OF THE NUTRITION FACTS LABEL
	on the Nutrition Facts Label is based on how many calories a day?

STEP 6: THE PERCENT DAILY VALUE (%DV)

• List 3 differences you see in the daily values of the hot dog label and tuna label.





Daily Food Group Target Worksheet

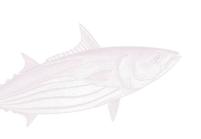
Name: _____

Date: _____

Use the food group charts from this lesson to determine your recommended daily food group targets.

- 1. How many cups of Fruits do you need in a day? _____cups
- 2. How many cups of Vegetables do you need in a day? _____cups
- 3. How many ounces of Grains do you need in a day? _____ounces
- 4. How many ounces of Protein Foods do you need in a day? _____ounces
- 5. How many cups of Dairy do you need in a day? _____cups
- 6. Do you think you meet your daily food group targets on a typical day? Check one:
 - Yes
 - 🛛 No

If you answered no, which food group(s) could you improve on and how?





Nutrition Facts Scavenger Hunt Worksheet

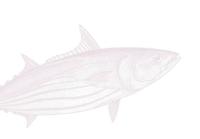
Name: ______

Date: _____

To answer the questions below you can use foods found in your kitchen, the school cafeteria, or at a local store.

1. Identify one food that is labeled a whole grain: ______

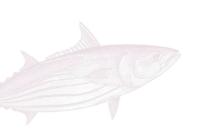
- 2. Identify one food that is considered low in fat (less than 5% total fat per serving):
- 3. Identify one food that is considered high in fat (20% or more total fat per serving):
- 4. Identify a food that is high in at least one of the key nutrients of calcium, iron, Vitamin A, or Vitamin C.
- 5. Identify a food that is a good source of fiber (3 grams of fiber per serving is considered good, and 5 or more grams per serving is excellent):







Resources Lesson 4: Seafood Nutrition



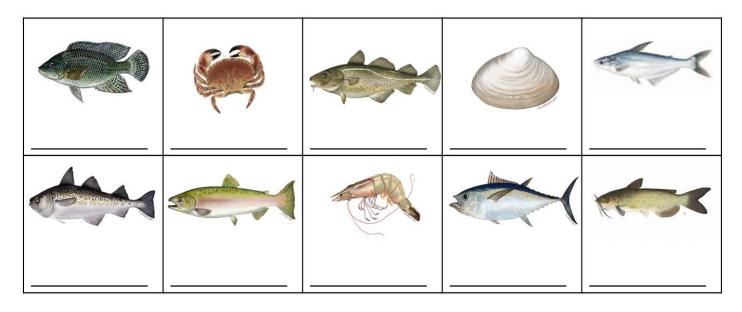




Name: _____

Date:

Can you identify the Top 10 Seafood?







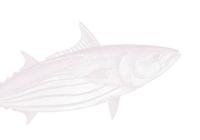




Answer Key

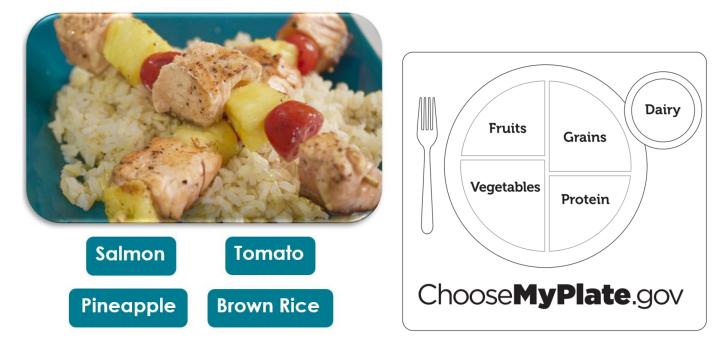
Can you identify the Top 10 Seafood?

tilapia	crab	cod	clams	pangasius
pollock	salmon	shrimp	tuna	catfish





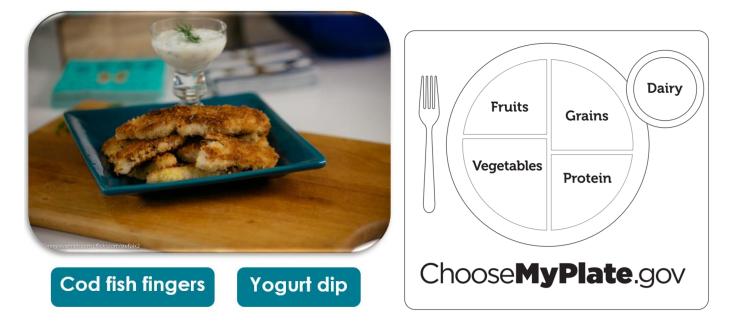
On the blank MyPlate, mark the food groups you see in the seafood dish. Suggest items for the food group(s) that are missing.







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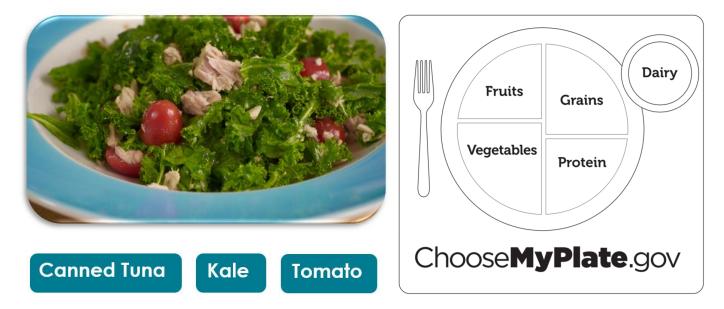
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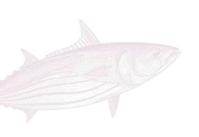
Fish Discovery Worksheet

Name: _____

Date: ___

Research one fish and one shellfish that is not listed in the top 10 consumed in America. Provide the name of the seafood, place of origin, a brief description, and find at least one recipe including that particular seafood. Include your answers below.

Fish: Place of Origin:	Shellfish: Place of Origin:
Brief Description (Availability, Color, Taste, Texture):	Brief Description (Availability, Color, Taste, Texture):
	·
Recipe Name & Source:	Recipe Name & Source:
	93



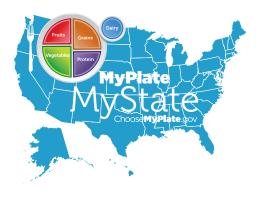




LIST YOUR MENU ITEMS USING THE TIPS BELOW:

TIPS FOR YOUR MENU:

- Try to include all five of the MyPlate food groups: Fruits, Vegetables, Grains, Protein Foods, and Dairy.
- Make half your plate fruits and vegetables.
- Include low-fat or fat-free milk or yogurt.
- Make half your grains whole grains.
- Limit sodium, saturated fat, and added sugars.





Resources

Lesson 5: Basic Culinary Techniques





Simply Satisfying Kale and Tuna Salad

Serves: 4 Prep Time: 10 minutes

Ingredients:

2 - 5oz. cans tuna
1 - Bunch kale or 1 bag of kale
2 oz. - Cherry tomatoes
1 - Lemon, raw
1/4 cup - Extra virgin olive oil
1/8 cup - Balsamic vinegar
Kosher salt (To taste)
Freshly ground pepper (To taste)



Directions:

- 1. Wash kale. Set aside to drain water off.
- 2. Cut tomatoes in half and lightly toss in bowl with balsamic vinegar, oil and pinch of salt and pepper. Set aside.
- 3. In a salad bowl, mix tuna and juice from the can gently with squeeze of 1/2 lemon and a pinch of pepper.
- 4. Massage kale for about 3 minutes to soften it.
- 5. Add the kale and 1/2 the tomatoes to the tuna, and gently toss until all is coated with dressing.
- 6. Add remaining tomatoes.
- 7. Squeeze remaining lemon all over and serve.







Smoked Salmon Pinwheel

Serves: 5 pinwheels Prep Time: 10 minutes

Ingredients:

2 2/3 oz. Smoked Salmon
1/3 cup Baby Spinach
3 oz. Goat Cheese Plain
1 tbsp. Minced Chives
1/3 tbsp. Minced Garlic
1 Flour tortilla
Salt and Pepper to taste



Directions:

- 1. Mix cheese, garlic and chives in a medium bowl; season with salt and pepper
- 2. Spread cheese mixture on the tortilla
- 3. Lay the spinach leaves flat in a single layer on half of the tortilla
- 4. Place thin slices of the smoked salmon on top of the spinach
- 5. Roll the pinwheel, starting with the salmon side
- 6. Cut and serve







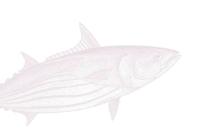


Recipe Scorecard

Recipe Name	Look	Smell	Taste
Kale Tuna Salad			
Smoked Salmon Pinwheel			

Sample Descriptive Words

brown	green	soft
crunchy	juicy	spongy
delicious	meaty	strong
flaky	mild	sweet
fresh	pink	white
firm	smooth	yummy







Date

Presented on:

SEAFOOD IN SCHOOLS

for outstanding participation in

CERTIFICATE OF EXCELLENCE

is hereby granted to:

Souting HEART HEALTHY



Seafood in Schools was developed by Seafood Nutrition Partnership. We hope that you and your students have fun using this supplemental curriculum to encourage healthy behaviors and improve health outcomes.

Additional Resources:

For additional resources, please visit the Seafood Nutrition Partnership website at <u>www.seafoodnutrition.org</u>. You will find seafood and heart health related handouts, recipes, cooking videos, coupons, and more.







