



Teamwork! – The USDA's Food Pyramid and the FDA's Nutrition Facts Labels

Middle School Food and Agricultural Literacy Curriculum

Precepts

- G. Physical Growth
- G1. Practice healthy eating habits.

National Standards

- FPP.03.01.03.b. – Compare and contrast the nutritive value of food and food groups.
- FPP.03.01.04.a. Discuss common food constituents (e.g., proteins, carbohydrates, fats, vitamins, minerals).
- NL-ENG.K-12.12 – Applying Language Skills
- NS.5-8.6 – Science in Personal and Social Perspectives
- NT.K-12.5 – Technology Research Tools

Student Learning Objectives

- As a result of this **unit** the student will...
- Critique food labels and claims
- As a result of this **lesson**, the student will ...
- Correlate the information on food nutrition labels to the dietary guidelines of the food pyramid.

Content Outline

Objective 1. Correlate the information on food nutrition labels to the dietary guidelines of the **food pyramid**

- A. The USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels are very similar, but they play different roles for consumers. Each complements the other if they are used properly.
- 1. The obvious difference between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels is serving size.
 - a. The USDA's **Food Pyramid** is a general guide to assist consumers on a daily basis to meet nutrient recommendations based upon easy-to-remember serving sizes.

Time

Instruction time for this lesson: 45 minutes.

Resources

Herring, D., Britten, P., Davis, C. & Tuepker, K. (December, 2000). Serving sizes in the food guide pyramid and on the nutrition facts label: What's different and why? USDA Center for Nutrition Policy and Promotion, (22) <http://www.cnpp.usda.gov/Publications/NutritionInsights/Insight22.pdf> United States Department of Agriculture. (2010). MyPyramid.gov. Retrieved February 10, 2010, from MyPyramid.gov. Web site: www.mypyramid.gov

Tools, Equipment, and Supplies

Overhead projector/transparencies
Golf balls – 10
Sand – 1 large plastic sealable bag full
Pitcher of water – 1 gallon
Plastic/glass jars – 2 (should be approximately the size that will be filled with 4-5 golf balls)
Large cookie sheet to catch water – 1
MS.FS.4.4.TM.A – one per teacher
MS.FS.4.4.AS.A – one per student
MS.FS.4.4.AS.B – one per student
MS.FS.4.4.ASSESS.A – one per student
Computer lab with Internet access

Key Terms

The following terms are presented in this lesson and appear in **bold italics**:

Food Pyramid

- b. The FDA's Nutrition Facts Labels provide detailed nutrient information for a specific food to be compared to similar foods.

Interest Approach

This interest approach will express the concept of balance and priority setting to students. The activity can be messy; therefore, it is advised to conduct it in an area away from computers that will be used later in the lesson. Have all materials and supplies ready along with towels for clean up. Place the jars on the cookie sheet before pouring water.

Good day class! Today we will be covering some new information in food science!

Our lives are similar to our diets. We need balance as well. What are the things in life that are the most important to you?



Lesson Number: MS.FS.4.4

Middle School Food and Agricultural Literacy Curriculum

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We will be using computers and the Internet today, so remember the school's rules for computer usage and be sure to remain on the USDA MyPyramid.gov site only.

Summary of Content and Teaching Strategies

Objective 1. Evaluate and research nutritional content of food products.

Using the following information, verbally explain the differences between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels.

Before we move to the computers, let's talk briefly about the difference between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels. Be sure to listen carefully, because we will be responsible for sharing the information with someone shortly.

Explain the following information:

- A. The USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels are very similar, but play different roles for consumers. Each complements the other if they are used properly.
 1. The obvious difference between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels is serving size.
 - a. The USDA's **Food Pyramid** is a general guide to assist consumers on a daily basis to meet nutrient recommendations based upon easy-to-remember serving sizes.
 - b. The FDA's Nutrition Facts Labels provide detailed nutrient information for a specific food to be compared to similar foods.

Okay, now that we have heard the information, let's check our understanding. When I say SHARE, turn to a partner and share what you understand the difference to be between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels. When finished, the other partner should take a turn and explain what they heard. Make clarifications for one another as needed. Let's take two minutes to do this. What questions are there? SHARE.

Pause for student reflection.

Things like family, friends, and faith are the big pieces, similar to the golf balls. How many of you are in a club?

Pause for student response.

Of course, many are involved in groups. Organizations, such as the FFA and any hobbies and schoolwork, are the sand. Finally, there's the water. This includes activities like videogames, television, etc. If we fill our lives with just videogames and television, we will not have any room for what are the most important things in life.

First, we will be studying the **food pyramid** and how it relates to our daily diet. The **food pyramid** is much like our daily lifestyle into which we can only fit so much. Think of this jar as our diet. Let's make this jar as full as possible to represent a full, well-balanced diet. First, let's put in our golf balls, which represent basic food groups like grains, fruits, and vegetables. Next is the sand, which represents protein groups like meat and dairy. Finally, we can add in our water which represents any extra calories from foods we might not need in large amounts. This is a balanced diet.

Now, what happens when we put in our extra calories, like junk food, first?

Wait for student response.

Let's see.

Pour in the water and follow with the golf balls and the sand. Be prepared for a mess.

Whoa! We have a spill on aisle five! When we first start with extra calories and try to follow with our more basic foods we create a dietary mess! A dietary mess can lead to malnutrition, obesity, and several other health problems. Let's make our diets look like the first jar!

We have been studying the FDA's Nutrition Facts labels for several days now. These are very important in making healthy choices in our diets. Today, we will make connections to another member of our government's dietary team, the United States Department of Agriculture! We are going to make connections to the USDA's **Food Pyramid** and the Nutrition Facts Labels we have been working to understand.



Lesson Number: MS.FS.4.4

Middle School Food and Agricultural Literacy Curriculum

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Excellent! Now that we know the basic differences we will move to the Internet to familiarize ourselves further with MyPyramid.gov!

Use the Go-Get-It e-Moment®, a computer lab, the Internet and www.mypyramid.gov to complete the questions on **MS.FS.4.4.AS.A**. Make arrangements for students to have access to computers and the Internet during this lesson. You may have students work individually or in pairs/teams. If computers and the Internet are not available, multiple printable resources are available from MyPyramid.gov that will allow you to have printed materials for students. If students need to be moved to a computer lab, do so before continuing. Place the Internet address and links for both activities on a writing surface for all students to see or project the website if a projector is available.

When I say GO, find a computer and get out a sheet of paper and a writing utensil.

Pause for students to do this.

As I go over the instructions, please write them down on the sheet of paper you got out.

Pause for students.

When I say FIND, log on to www.mypyramid.gov. Once there, click on the link called, "Inside the Pyramid." Upon arriving at this page simply click on each portion of the pyramid to learn more and answer the questions on the activity sheet. When finished, please bring your sheet to me to check completion, then return to a seat and wait for the next set of directions. Ten minutes will be allowed for this activity so move quickly! What questions are there? FIND.

Monitor student progress and adjust time as necessary. As students finish, check their sheets for completion and allow them to retain their work.

Super work, everyone; thank you for remaining on task! Now that we have seen that the **Food Pyramid** is more of a general guide, let's get specific. We know the FDA's Nutrition Facts Labels are specific and the MyPyramid.gov site has a neat tool we can use to make comparisons.

Students will utilize the "Look Up a Food" tool to search all of the foods they consumed the day prior. The point of this activity is to determine if they remained within the 2,000-calorie suggested guidelines as well as to determine if they consumed the appropriate amount of food from the pyramid's food groups. Distribute **MS.FS.4.4.AS.B** for this activity.

Please pause, move away from the computers, and hear these directions.

Upon receiving this sheet of paper we will reflect on all of the food we consumed yesterday, reference the food on the USDA's website, determine how many calories we consumed and what food groups were utilized. First, read the sheet and record what food you consumed yesterday under each meal or snack section. Second, use the link labeled "Look Up a Food" to search the nutritional facts for each food and record the calories for the food under the appropriate food group. Third, sum all of the calories you took in yesterday.

Finally, determine what food groups the foods you consumed came from and what food groups were missed. We will work on this activity for approximately 15 minutes.

Who will repeat the directions for what we are about to do? Here we go!

Distribute **MS.FS.4.4.AS.B**. Monitor student work and adjust time as necessary. Be available for assistance while students are self-directed. Conduct a sheet on yourself so you may share your information with the class as well.

I don't know about everyone else, but I sure learned something about my eating habits!

Share a couple of insights you had concerning your diet.

What insights did you have?

Wait for students to respond. Take responses depending upon the pace and time left in class.

Review/Summary

Well, it is about time to depart, so let's take a moment to reflect before leaving. Today we made comparisons between the USDA's **Food Pyramid** and the FDA's Nutrition Facts Labels we have been studying. What great information to understand in order to maintain a healthy diet! What a great class! Let's be sure to log out of our computers and leave the room in a better condition than we found it. Until tomorrow!



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Application

Extended classroom Activity:

Create a meal plan that will work for all family members throughout the week without changing the main courses each day. Include serving sizes with meal plan.

FFA Activity:

Create a mypyramid.gov drive and get as many people as possible in the community to check out their diet at the grocery store or library.

SAE Activity:

Have students create a brochure discussing careers in the agricultural industry related to food nutrition.

Evaluation

MS.FS.4.4.ASSESS.A

Answers to Evaluation

1. E
2. A
3. C
4. B
5. D



Objective 1. Correlate the information on food nutrition labels to the dietary guidelines of the food pyramid

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 - a. The obvious difference between the USDA's *Food Pyramid* and the FDA's Nutrition Facts Labels is serving size.
 - i. The USDA's *Food Pyramid* is a general guide to assist consumers on a daily basis to meet nutrient recommendations based upon easy-to-remember serving sizes.
 - ii. The FDA's Nutrition Facts Labels provide detailed nutrient information for a specific food to be compared to similar foods.



Discovering the USDA's Food Pyramid

Directions: Use the USDA's My Pyramid website (www.mypyramid.gov) to discover the key to your balanced diet.

1) What are the USDA food groups?

2) Complete a My Food Pyramid assessment of your diet. How much should you consume of each food group a day?

3) What are the healthy benefits of each food group?

4) List five things the pyramid states about physical activity.



What Did I Eat? – Using the Food Pyramid and Nutritional Facts Labels

Directions: Using the “Look Up a Food” link at MyPyramid.gov, search the foods you consumed yesterday, and record their caloric content under the appropriate food groups.

	Grains	Fruits	Vegetables	Meats/ Beans	Milk	Oils	Other
Breakfast							
Foods:							
Foods:							
Snack							
Foods:							
Lunch							
Foods:							
Foods:							
Foods:							
Snack							
Foods:							
Dinner							
Foods:							
Foods:							
Foods:							
Snack							
Foods:							

1. Total Calories for the Day: _____

2. What food groups were satisfied according to MyPyramid.gov? Which groups were lacking?



Name: _____

1. **Who provides the information for the food pyramid?**
 - a. CIA
 - b. FDA
 - c. FFA
 - d. The President
 - e. USDA
2. **What food group provides us the most protein?**
 - a. Meat
 - b. Dairy
 - c. Grains
 - d. Vegetables
3. **What food group provides us with the most carbohydrates?**
 - a. Meat
 - b. Dairy
 - c. Grains
 - d. Vegetables
4. **Which food group are dairy products in?**
 - a. Meat
 - b. Milk
 - c. Grains
 - d. Vegetables
5. **Which food group provides several macro and micronutrients?**
 - a. Meat
 - b. Dairy
 - c. Grains
 - d. Vegetables