

## PLANNING, SELECTING, STORING, PREPARING & SERVING FOOD TO MEET NUTRITIONAL NEEDS

### Planning and Selecting Food to Meet Nutritional Needs

Grade Levels: 7-12

**Concept:** Reading Labels – **Updated with 2006 requirements**

**Comprehensive Standard:** 6.3 Demonstrate planning, selecting, storing, preparing and serving of foods to meet nutritional needs of individuals and families across the life span

**Technical Standard(s):** 6.3.2 Select, store, prepare and serve nutritious and aesthetically pleasing foods that meet the health and wellness needs of family members based on available resources

#### LESSON COMPETENCIES

- Identify the parts of the food label
- Explore why foods labels are beneficial to consumers
- Compare food products using the food label
- Analyze nutrient content claims made on food labels

#### Anticipated Behavioral Outcomes:

- Students use food labels to compare calories, nutrient content and cost of foods when making food choices.

#### Resources Needed:

- Sample food labels or food packages with a food label
- One or more boxes of breakfast cereal, cereal bowls, measuring cups
- Copies of handouts for each student

#### References for teachers and students:

**NEW** In January of 2006, new food label requirements went into effect. There are two articles, *Keeping up With the Changing Food Label* ([www.ific.org/foodinsight/2006/jf/foodlabelfi106.cfm](http://www.ific.org/foodinsight/2006/jf/foodlabelfi106.cfm)) and *Making the Most of Dietary Fats Information* ([www.ific.org/foodinsight/2006/jf/fatsfi106.cfm](http://www.ific.org/foodinsight/2006/jf/fatsfi106.cfm)), explaining these new changes in the January 2006 issue of *Food Insights* a publication of the *Food Information Council (IFIC) Foundation*. It can be accessed at [www.ific.org/foodinsight](http://www.ific.org/foodinsight). There is also a downloadable Power Point presentation, *New Nutrition Conversation with Consumers – About Fats in Food* (<http://www.ific.org/tools/presentations.cfm>) that addresses the issue of trans fats and other fats in food. Updated copies of food labels are available at *Examples of Revised Nutrition Facts Panel Listing Trans Fats* ([www.cfsan.fda.gov/~dms/labtr.html](http://www.cfsan.fda.gov/~dms/labtr.html)) on the FDA site.

**NEW** - The FDA has numerous publications on food labeling and updated examples of the food label featuring the 2006 requirements for trans fats. The site also has an interactive quiz on food labels. These publications can be accessed at [www.cfsan.fda.gov/~dms/lab-gen.html](http://www.cfsan.fda.gov/~dms/lab-gen.html) One webpage to explore is *How to Understand*

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Unit III—Planning, Selecting, Storing, Preparing and Serving Food to Meet Nutritional Needs

and Use the Nutrition Facts Label ([www.cfsan.fda.gov/~dms/foodlab.html](http://www.cfsan.fda.gov/~dms/foodlab.html)). This was updated in 2004 but does include trans fat on the nutrition facts panel.

The FDA and the International Food Information Food Council have produced an educational program on the food label as implemented in 1994 for high school students called *The New Food Label, There's Something In It For Everybody* (<http://ific.org/publications/other/tnfl.cfm>). The teacher's guide contains 5 lesson plans with learner outcomes, activities, handouts, worksheets and a list of references for more information. This guide is important to complete the activities described in this lesson. The 48-page booklet can be downloaded in PDF format at [www.fda.gov/opacom/catalog/teachkit.html](http://www.fda.gov/opacom/catalog/teachkit.html) **NOTE TO TEACHER:** this teaching kit is still available but has not been updated to include the 2006 requirements – be sure to make changes/modifications before using.

A 7 ½ minute video, *The Food Label and You: Check It Out!*, is available from the FDA for \$8.95. You can preview the video online and view a copy of the Leader's Guide for the video at [www.cfsan.fda.gov/~lrd/labelwww.html](http://www.cfsan.fda.gov/~lrd/labelwww.html)

Students can test their food label knowledge with an interactive quiz at [www.cfsan.fda.gov/~dms/flquiz1.html](http://www.cfsan.fda.gov/~dms/flquiz1.html) It is also available in PDF format at this site if you choose not to use the Internet.

**NOTE TO TEACHER: Be sure to read the latest information on food labeling before beginning this unit. The FDA website will provide the most recent updates. AND be sure to update any information that does not include the latest updates.**

### **Background Information:**

The *U.S. Food and Drug Administration* (FDA)([www.fda.gov](http://www.fda.gov)) , operating under the Federal Food, Drug and Cosmetic Act, regulates the labeling for all foods other than meat and poultry. The *U.S. Department of Agriculture* (USDA) ([www.usda.gov/wps/portal/usdahome](http://www.usda.gov/wps/portal/usdahome)) under the Federal Meat Inspection Act regulates meat and poultry products.

Food labels for most of the food products sold in the United States must have the product name, the manufacturer's name and address, the amount of product in the package and a list of ingredients in the product. The ingredients are listed in descending order based on weight.

The FDA initiated new guidelines for nutrition labeling in 1994. Nutrition labeling is now required for most foods. In addition, voluntary nutrition information is now available for the 20 most frequently eaten raw fruits, vegetables and fish and the 45 best selling cuts of meat. This information comes under the FDA's voluntary point-of-purchase nutrition information program. For these foods, nutrition information can be provided on the package or posters displayed near the food. These foods are specifically identified in the article *Nutritional Info Available for Raw Fruits, Vegetables, Fish* available at [www.fda.gov/fdac/special/foodlabel/raw.html](http://www.fda.gov/fdac/special/foodlabel/raw.html)

**NEW** – In January, 2006, new requirements for additions to the food label were made. The Nutrition Facts panel provides a mandatory listing of the total fat content, saturated fat content and as of January, 2006, the *trans* fat content of food products. Other important types of fats such as polyunsaturated fat and monounsaturated fat may be listed

voluntarily. In addition, the Food Allergen Labeling and Consumer Protection Act passed by Congress in 2004 became effective on January 1, 2006. This law requires all food labels to declare in plain English the presence of eight food allergens: milk, soy, egg, wheat, fish, crustacean shellfish, peanuts and tree nuts.

**NEW – NOTE TO TEACHER:** MyPyramid uses recommended amounts of foods whereas the nutrition label still refers to serving sizes. You will need to help students recognize this. A wise consumer will need to refer to the amounts recommended by MyPyramid as they read the nutrition facts label.

Also, nutrition information is required for restaurant foods about which a health or nutrient-content claims are made on restaurant menus, signs or placards [*The Food Label*, (<http://www.cfsan.fda.gov/~dms/fdnewlab.html>) U.S. Food and Drug Administration, ([www.fda.gov](http://www.fda.gov)) May, 1999].

Foods exempt from nutrition labeling include:

- food served for immediate consumption (i.e. food in cafeterias or airplanes)
- ready-to-eat food that is not for immediate consumption but is prepared primarily on site (i.e. bakery, deli and candy store items)
- food shipped in bulk, as long as it is not for sale in that form to consumers
- medical foods
- plain coffee and tea, some spices and other foods that contain no significant amounts of any nutrient

The food labels provide the following for consumers (FDA, May, 1999):

- easy to read formats that make it easy to find nutrition information
- information on the amount per serving of saturated fat, cholesterol, dietary fiber, and other nutrients of major health concern
- nutrient reference values, expressed as % Daily Values (DV)
- uniform definitions for terms that describe a food’s nutrient content such as “light”, “low-fat”, etc.
- claims about the relationship between a nutrient or food and a disease or health-related condition, such as calcium and osteoporosis
- standardized serving sizes
- total percentage of juice in juice drinks

### **Learning Activities:**

#### **Middle School Level**

- Remove the label from 2 similar size cans of food (i.e. green beans and spinach or tomato soup and split pea soup). Tell students that they must choose one of these products for lunch. Which would they choose? After the students have made their choices, reveal the identity of the product. Ask students if they would still choose the same product. Discuss importance of ingredient lists to consumers.
- Bring in variety of food labels and/or packages with food labels in a grocery bag; give each student a label or product or ask them to pick a label or product from the bag. Ask students to examine the nutrition facts panel on the label and then ask them to name things the nutrition facts panel on the label tells a consumer about the food inside. On the board, list the types of information

students find on the panel. (Adapted from *The New Food Label: There's Something in It for Everybody* <http://iflc.org/publications/other/tnfl.cfm>- see resource list for access to this kit)

- Using a poster, transparency or handout, assist students in identifying the parts of the nutrition facts panel on food labels. The FDA website has several examples that could be used for this activity.
- Introduce serving size by asking one or all students to pour out the amount of breakfast cereal he/she usually eats. Ask students to guess about how much cereal is in each bowl. Ask, “Would you consider these examples to be one serving, more or less?” After guessing, ask students to pour the cereal from the bowl into a measuring cup. Measure out the amount listed as the serving size on the nutrition panel and place this amount in a bowl. Compare your “portion” with the label’s “serving” size. Note that every person has a different idea of a “serving” and stress that nutrition information on the label is provided for one serving; therefore it is important that consumers know what the serving size amount is. Next, measure the amount in the bowls students poured to see how many servings are represented. Compare to amounts recommended by MyPyramid. (Adapted from *The New Food Label: There's Something in It for Everybody* <http://iflc.org/publications/other/tnfl.cfm>). **NOTE TO TEACHER:** To add interest, use more than one type of cereal to see if students would take larger portions of one cereal over another. For example, provide “Corn Flakes” and “Sugar Frosted Corn Flakes” and compare differences in serving sizes, grams of sugar, calories, etc.
- Show the video, *The Food Label and You: Check it Out!* (see reference list for ordering information) Use the questions and activities included in the Leader’s Guide that accompanies the video.
- Ask students to compare nutrition labels for two similar products in the activity [\*“Choose the Best, and Leave the Rest”\*](#). **NOTE TO TEACHER:** You will need to provide food labels or food products with the food label for this activity.
- Ask students to visit the “Rate Your Plate” interactive web-based game at <http://sp.uconn.edu/~cthompso/> Students select a menu for one meal and a nutrition label for each food choice will be generated. Students could make a copy of these labels and plan a day’s menu to accompany this meal which will meet 100% of the DV for each of the nutrients listed on the label.
- Ask student to create a “Top Ten” list poster for reasons why nutrition labels are important to consumers (Adapted from *The New Food Label: There's Something in It for Everybody* <http://iflc.org/publications/other/tnfl.cfm>).

### High School Level

- Remove the label from 2 similar size cans of food (i.e. green beans and spinach or tomato soup and split pea soup). Tell students that they must choose one of these products for lunch. Which would they choose? After the students have made their choices, reveal the identity of the product. Ask

students if they would still choose the same product. Discuss value of labeling. Brainstorm how the food label is important to consumers.

- Show the video, *The Food Label and You: Check It Out!* (see reference list for ordering information) Use the questions and activities included in the Leader's Guide that accompanies the video.
- **NEW** Use the PowerPoint presentation *New Nutrition Conversation with Consumers – About Fats in Food* ([www.ific.org/tools/presentations.cfm](http://www.ific.org/tools/presentations.cfm)) to introduce information on fats, especially the info on trans fats, a new addition to the nutrition facts panel on the foods label. Ask students to read the FDA webpage article on the food label, *How to Understand and Use the Nutrition Facts Label* ([www.cfsan.fda.gov/~dms/foodlab.html](http://www.cfsan.fda.gov/~dms/foodlab.html)), a printable file is available.
- Distribute food labels and/or actual food products with the food labels on them – have the labels or food items in a grocery bag or basket and ask each student to draw an item from it. Use the activities in *The New Label, There's Something In It For Everybody* (<http://ific.org/publications/other/tnfl.cfm>) described in Lesson 1: Read Any Great Labels Lately?
- Provide students with the handout, *Stake Your Claim*. Go over the terms with students and show examples of food labels stating the claims. Following this, ask students to conduct their own "Supermarket Hunt" as described in *The New Label, There's Something In It For Everybody* (<http://ific.org/publications/other/tnfl.cfm>). A chart is available on pg. 27 of the kit to use with this activity that is described in Lesson Plan 3: Label Talk! The activity sheet can be found in the downloaded in PDF format at [www.fda.gov/opacom/catalog/teachkit.html](http://www.fda.gov/opacom/catalog/teachkit.html). This activity could be a class field trip or as an assignment to be completed outside of class. Students could be assigned to work in teams of 2.

### Extended Learning Activities

- **Cafeteria Clues** – Obtain a copy of the cafeteria menus for the following week from the school kitchen and nutrition personnel. Using computer software or other sources, students prepare a nutrition label for each of the menu choices and place on a placard or poster for other students to view in the cafeteria as they make their school lunch choices.
- **Vending Machine Messages** – Have students create point of purchase nutrition information to post on the outside of school vending machines. Gather information from labels on snacks sold in the machine. (From *The New Label, There's Something In It For Everybody* <http://ific.org/publications/other/tnfl.cfm>.)

# Choose the Best and Leave the Rest!

## Tortilla Chips

## Baked Tortilla Chips

1. The number of calories in the serving size on the label of each product is:

Tortilla Chips \_\_\_\_\_

Baked Tortilla Chips \_\_\_\_\_

2. The serving size on the label for each product is:

Tortilla Chips \_\_\_\_\_

Baked Tortilla Chips \_\_\_\_\_

3. Which product has more calories from fat?

Tortilla Chips \_\_\_\_\_

Baked Tortilla Chips \_\_\_\_\_

4. The serving size on the label for salsa is \_\_\_\_\_

If you added this to the chips, how many calories  
will you add?

Discuss - How do the serving sizes on the labels compare to amounts recommended in MyPyramid?

# Stake Your Claim!



Food manufacturers are now required to meet specific definitions for all claims made on the label. These nutrient content claims are based on one serving of the food. For example, a calorie-free food has less than 5 calories per serving. Here is a summary of the nutrient content claims and their definitions:

<b>Nutrient Content Claim</b>	<b>Definition</b>
<b>Calories</b>	
Calorie free	less than 5 calories
Low calorie	40 calories or less
Reduced or fewer calories	at least 25% fewer calories*
Light or lite	one-third fewer calories or 50% less fat*
<b>Sugar</b>	
Sugar free	less than 0.5 gram sugars
Reduced sugar or less sugar	at least 25% less sugars*
No added sugar	no sugars added during processing or packing, including ingredients that contain sugars, such as fruit juice or dry fruit
<b>Fat</b>	
Fat free	less than 0.5 gram fat
Low fat	3 grams or less of fat
Reduced or less fat	at least 25% less fat*
Light	one-third fewer calories or 50% less fat*
<b>Saturated Fat</b>	
Saturated fat free	less than 0.5 gram saturated fat
Low saturated fat	1 gram or less saturated fat and no more than 15% of calories from saturated fat
Reduced or less saturated fat	at least 25% less saturated fat*

## Cholesterol

Cholesterol free	less than 2 milligrams cholesterol and 2 grams or less saturated fat
Low cholesterol	20 milligrams or less cholesterol and 2 Grams of less of saturated fat
Reduced or less cholesterol	at least 25% less cholesterol* and 2 grams or less saturated fat

## Sodium

Sodium free	less than 5 milligrams sodium
Very low sodium	35 milligrams or less sodium
Low sodium	140 milligrams or less sodium
Reduced or less sodium	at least 25% less sodium*
Light in sodium	50% less

## Fiber

High fiber	5 grams or more
Good sources of fiber	2.5 to 4.9 grams
More or added fiber	at least 2.5 grams more*

## Other Claims

High, rich in, excellent source of	20% or more of Daily Value*
Good source, contains, provides	10% to 19% of Daily Value*
More, enriched, fortified, added	10% or more of Daily Value*
Lean**	less than 10 grams fat, 4.5 grams or less saturated fat, and 95 milligrams cholesterol
Extra lean**	less than 5 grams fat, 2 grams saturated fat and 95 milligrams cholesterol

\* as compared with a standard serving size of the traditional food

\*\* on meat, poultry, seafood, and game meats

From The New Food Label, There's Something In It For Everybody, U.S. Food and Drug Administration.