

Health Education Lesson Plan

Teacher:

Grade Level: 4

Core Idea: Wellness ___ Safety ___ Nutrition X Sexual Health ___ Social Emotional Health ___ Substance Use & Abuse ___

Topic	Label Literacy		
Lesson Title	Nutrition Labeling (Grade 4)		
Grade Level Outcome(s)	Explain how to use information found on a Nutrition Facts label. H1.N3.4		
Learning Standards (Check all that apply)	(1) Health Promotion/Disease Prevention <u>x</u> (2) Influence of Family, Peers, Culture, Media, Technology ___ (3) Access Valid Information <u>x</u> (4) Communication Skills <u>x</u> (5) Decision Making <u>x</u> (6) Goal Setting ___ (7) Practice Health-Enhancing Skills <u>x</u> (8) Advocacy ___		
Learning Outcomes	Students will be able to state what information can be located on a Nutrition Facts label and show how to use it when making health decisions.	Student Success Criteria	"I can use Nutrition Facts labels to investigate the nutritional value of foods and beverages."
Essential/Inquiry Questions	Key Words		
"How can a Nutrition Facts label help me make healthy choices?"	<p><u>Calorie</u>: A measure of the energy that food supplies to the body.</p> <p><u>Health</u>: State of complete physical, emotional, mental, environmental, spiritual, and social wellbeing and not merely the absence of disease.</p> <p><u>Nutrients</u>: Substances in food that the body needs to grow, repair itself, and supply energy. There are six essential nutrients:</p> <ol style="list-style-type: none"> 1. Carbohydrates- Starches and sugars present in foods 2. Fats- Energy source that increases the absorption of fat-soluble vitamins 3. Proteins- Nutrients that help build and maintain body cells and tissues 4. Vitamins- Compounds that help regulate many vital body processes, including digestion, absorption, and metabolism of other nutrients 5. Minerals- Substances that the body cannot manufacture, but are needed for forming healthy bones and teeth and for regulating many vital body processes 6. Water- Essential nutrient that keeps the body hydrated and functioning <p><u>Nutrition</u>: The process by which the body takes in and uses food.</p> <p><u>Nutrition Facts label</u>: A label found on the packaging of food that states the nutrients in the product.</p> <p>(Definitions from OSPI Health Education Glossary)</p>		

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Lesson Introduction

"I'd like to start our nutrition lesson today by asking you to think about what a label is. Turn and talk to your neighbor about what the word label means and where you find labels." [After about 30 seconds, ask students to report back.]

"A label gives us information about something – like a label on clothing or a piece of equipment. Sometimes it's a warning label. For example, ladders have warning labels that tell us how to use them safely. Sometimes labels tell us who made a product. Today we are going to investigate labels on food, specifically on beverages. Nutrition Facts labels are required on all food packages. Do you think a Nutrition Facts label can help you make a healthier choice? Turn and talk to your neighbor about what you think about this and why." [After about 30 seconds, ask students to report back.] "Let's find out how Nutrition Facts labels can help us."

Lesson Content & Activities

- 1) "Let's take a look at the Nutrition Facts label." (Show **Visual #1**) "A really great thing about this lesson is that you are learning about the new label that food companies are now beginning to use. So you are some of the first students to learn about it. A lot of food labels you see in the grocery store right now are the older version. It is similar, but we will take a look at the differences. There is a lot of information on it!"
- 2) Briefly review the nutrients. See the **Label Definitions for Teachers** resources for help in describing what students are looking at. Emphasize information about what a calorie is, what daily value means, serving size and the importance of protein, vitamin D, calcium, iron and potassium. Add other information as time or interest allows.
- 3) "Now we will look at what is new about the label compared with the older version." (Show **Visual #2**) Review the following:
 - "The serving size and calorie sections are in bolder type. Why do you think this has changed?" [Consumers want to see this information quickly so making it bolder makes it easier to see.]
 - Serving sizes have been updated to be more realistic of what people actually eat. In most cases they are larger. What does this say about how Americans are eating?" [We are eating larger portions.]
 - Updated daily values – This area shows what percent of the various nutrients you are getting by eating this particular food. Different from the old label, the recommendations for how much we need of different nutrients has changed based on scientific evidence. For example, the recommended amount of vitamin D has been doubled."
 - Added sugars – Some foods and drinks naturally have sugar in them. Orange juice is an example. It tastes sweet because oranges are naturally sweet. But some foods and drinks have added sugars. An example of that would be an orange soda. Some foods and drinks have some naturally occurring sugars and some added sugars.

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- The old labels had different nutrients listed. Two new nutrients now listed are vitamin D and potassium. Why do you think they added these?" [Many Americans are not getting enough of these two nutrients.] "And the actual amount of the nutrients is listed, for example mg of iron, not just the percentage."
 - "There is a footnote at the bottom that explains how the Daily Value is determined. All of the information is based on someone who needs about 2,000 calories per day. For students your age, that might be a little high. Everyone's caloric needs are different based on their age, gender and activity level. On the label, the percent of the nutrients is based on 2,000 calories."
- 4) Distribute the **Nutrition Facts Label Investigation** worksheet and one **beverage card** to each student. "As a way to become more familiar with what we've learned so far about the label, each of you are receiving a beverage card that includes a Nutrition Facts label. You will use this information to answer some questions on a worksheet." Review worksheet. Allow students about 10 minutes for completion. You may choose to allow students to work in pairs and help each other as necessary. When students have completed their worksheets, give them a few minutes to share what they discovered with a partner.
- 5) Class Discussion:
- "If you had a beverage that you considered to be an unhealthy choice, hold it up." Allow students to look at the various cards. Next, call on several volunteers who will share how they determined their beverage was not healthy. Repeat this process with healthier beverages.
 - "Now let's review some of the ways that helped you make your decisions. First, what size beverage did you have? How many of you had a beverage that was 8 ounces?" [Invite students to raise their beverage card if their drink was 8 ounces.] "Notice that not all the beverages are the same serving size. This reflects how we see beverages in the store. They come in lots of different sizes so it is important to pay attention."
 - "Next, let's look at the added sugar section. How many of you had beverages with added sugars? [Invite students to raise their cards if their beverages have added sugar.] "Remember that this is a new feature of the new Nutrition Facts label."
 - "Now we'll take a look at some of the specific nutrients. When the percentage of a nutrient is 10% or higher, it is considered to be a "good source" of that nutrient. Let's look at a few nutrients and see if they are at or above the 10% mark." Refer them to the Daily Value section bar graph on their cards. Invite students to hold up cards that have 10% or higher of the various nutrients. Review the various nutrients by using **Visual #3**. Reinforce the importance of the various nutrients on the Nutrition Facts label. Note that very few beverages will have fiber or iron. We need to consume other foods to get these nutrients. Fiber is found in fruits, vegetables and whole grains. Iron is found in protein sources such as meat, chicken, fish and beans.
 - "Let's name some of the discoveries we have made. What has surprised you either about the beverage you had or one someone else shared?"

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Closure	
<ul style="list-style-type: none"> - “To conclude, share with a partner at least one new thing you learned about the Nutrition Facts label.” [Give time for sharing.] “Now share how you would use this information in the future.” [Give time for further sharing.] “Let’s hear from a few of you.” [Hear from various students.] - “Today we’ve learned about a tool that can help us make more informed nutrition decisions. It sounds like you have learned a lot! In our next lesson, we will build on the information we have learned today and compare various beverages.” 	
Differentiating Instruction	Assessment
For students with limited English language skills, they may be paired with a partner who is more fluent.	Student learning may be measured by: <ol style="list-style-type: none"> 1. Completion of the Nutrition Facts Label Investigation worksheet 2. Participation in classroom discussion
Interdisciplinary Connections	Equipment/ Resources
<u>Common Core State Standards for English Language Arts</u> <u>Reading Standards for Informational Text: #4</u> Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area. <u>Reading Standards for Informational Text: #7</u> Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	<u>Teacher Resources in Preparation for the Lesson:</u> <ul style="list-style-type: none"> • Label Definitions for Teachers (Included) • 2018 Label/What’s the Difference (Included) <u>Classroom Resources for Teaching the Lesson:</u> <ul style="list-style-type: none"> • Visuals 1 -3 (Included) • Nutrition Facts Label Investigation Worksheet (Included) • Beverage Cards (Download from www.wadairy.org) * Remove the following from set for this lesson – Diet Cola, Water, Black Coffee, and Iced Latte No Sweetener (note that some beverages are represented twice but in different sizes-- you may wish to use only one of each depending on class size.)
Teacher Reflection <i>(Complete After Teaching)</i>	

Label Definitions for Teachers

In order of appearance on the Nutrition Facts label

Serving: By law, serving sizes must be based on amounts of foods and beverages that people are actually eating, not what they should be eating. How much people eat and drink has changed since the previous serving size requirements were published in 1993. For example, the reference amount previously set a serving of ice cream as 1/2 cup but is changing to 2/3 cup. The reference amount for soda is changing from 8 ounces to 12 ounces.

Calorie: A calorie is a unit of measurement — but it doesn't measure weight or length. A calorie is a unit of energy. When you hear something contains 100 calories, it's a way of describing how much energy your body could get from eating or drinking it.

Daily Value: Daily values are reference amounts of nutrients to consume or not to exceed and are used to calculate the recommended percent Daily Value (% DV) that manufacturers include on the label. The % DV helps consumers understand the nutrition information in the context of a total daily diet.

Fat: Like carbohydrates and protein, fat is a major component of food. Some foods, including most fruits and vegetables, have almost no fat. Other foods have plenty of fat. They include nuts, oils, butter, and meats like beef. The name "fat" makes it sound like something you shouldn't eat. But fats provide important fatty acids and helps you absorb certain vitamins. Because fat is high in calories you should not consume more than your body needs.

Cholesterol: Cholesterol is a type of fat made in the liver. We all need some cholesterol for our brain and skin but when we have too much cholesterol in our bloodstream, a lot can collect in the blood vessel walls, causing these "pipes" to become narrower. This can clog the blood vessels and keep blood from moving freely the way it is supposed to. If the clogging gets worse over many years, it can cause damage to important body parts, like the heart (heart attack) and brain (stroke). Both kids and adults can have too much cholesterol in their blood.

Sodium: Sodium is a mineral and an essential nutrient. It helps to maintain blood volume, regulate the balance of water in the cells, and keep nerves functioning. Table salt is a combination of sodium and chloride. Too much sodium can contribute to high blood pressure. Sodium is especially found in processed foods such as canned soups, frozen dinners and bottled salad dressings — foods that can be stored a long time.

Carbohydrate: Like proteins and fats, carbohydrates are one of the three main nutrients in food. Carbohydrates (carbs) are the body's major source of energy. There are two main types of carbohydrates — sugars (like the kinds in milk, fruit, table sugar, and candy) and starches, which are found in grains, breads, crackers, and pasta.

Fiber: Dietary fiber comes from plants and cannot be digested. It helps clean out our intestines by supporting bowel movements. This helps prevent constipation. Fiber is found mainly in fruits, vegetables, whole grain and legumes (peas, beans and lentils).

Sugars: Sugar is a type of carbohydrate. It is used and stored as energy. Sugar has lots of names and forms such as glucose, fructose, maltose and dextrose. Other forms of sugar are honey, corn syrup and molasses.

Added Sugars: These are sugars that are added to products - not there in a natural form. For example, milk contains lactose which is a sugar. Chocolate milk also contains lactose but has added sugars as well. It is recommended that we consume no more than 10% of our calories from added sugars. For a 2,000 calorie diet, this would be 50 grams of added sugar.

Protein: Like fats and carbohydrates, protein is one of the three main nutrients in food. Protein builds, maintains and replaces the tissues in your body. Your muscles, organs and immune system are made up mostly of protein. Protein is found in foods such as eggs, fish, chicken, beans and milk.

Vitamin D: This vitamin is important for strong teeth and bones, as well as other functions. It also helps your body absorb the mineral calcium. Foods with vitamin D are fish, egg yolks, liver, fortified cereal and milk fortified with vitamin D. It is also made in the skin when exposed to sunlight.

Calcium: Calcium is a mineral that helps build strong bones and teeth, as well as other functions. It is primarily found in dairy products such as milk, cheese and yogurt. Other sources are leafy green vegetables and calcium fortified foods such as orange juice and cereals.

Iron: The mineral iron is needed by the body to transport oxygen from your lungs to the rest of your body. Iron helps because it is important in the formation of hemoglobin, which is the part of your red blood cells that carry oxygen throughout the body. Iron is found in meat, especially red meat, chicken, fish and beans. It is also found in plant foods such as leafy green vegetables and whole and enriched grains however our bodies are not as efficient in absorbing iron from plant sources.

Potassium: Potassium is a mineral important for regulating heart function, blood pressure and nerve and muscle activity. Some of the highest potassium sources are bananas, potatoes, sweet potatoes (both with skin), avocados, squash, yogurt, milk, beans, clams and halibut.

Sources:

<http://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/UCM502305.pdf>

<http://kidshealth.org/>

<http://nutritiondata.self.com/help/glossary#ixzz4GIhTdvil>

<http://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=284&id=2685>

2018 Label / What's Different

Servings:
larger,
bolder type —

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories 230

% Daily Value*

Total Fat 8g 10%

Saturated Fat 1g 5%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 160mg 7%

Total Carbohydrate 37g 13%

Dietary Fiber 4g 14%

Total Sugars 12g

Includes 10g Added Sugars 20%

Protein 3g

Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 235mg 6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

— Serving sizes updated

— Calories: larger type

— Updated daily values

— Actual amounts declared

— New footnote

New:
added sugars —

Change
in nutrients
required —

Nutrition Facts Label

Here is an example of what the
2018 Nutrition Facts label looks like.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
<small>* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

Nutrition Facts Label - Key Changes

The U.S. Food and Drug Administration has finalized a new Nutrition Facts label for packaged foods that will make it easier for you to make informed food choices that support a healthy diet. The updated label has a fresh new design and reflects current scientific information, including the link between diet and chronic diseases.

1. Servings

The number of “servings per container” and the “Serving Size” declaration have increased and are now in larger and/or bolder type. Serving sizes have been updated to reflect what people actually eat and drink today. For example, the serving size for ice cream was previously ½ cup and now is ¾ cup.

There are also new requirements for certain size packages, such as those that are between one and two servings or are larger than a single serving but could be consumed in one or multiple sittings.

2. Calories

“Calories” is now larger and bolder.

3. Fats

“Calories from Fat” has been removed because research shows the type of fat consumed is more important than the amount.

4. Added Sugars

“Added Sugars” in grams and as a percent Daily Value (%DV) is now required on the label. “Added Sugars” include sugars that have been added during the processing or packaging of a food. Scientific

Current Label

Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving

Calories 230 Calories from Fat 72

% Daily Value*

Total Fat 8g **12%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **12%**

Dietary Fiber 4g **16%**

Sugars 1g

Protein 3g

Vitamin A 10%

Vitamin C 8%

Calcium 20%

Iron 45%

* Percent Daily Values are based on a 2,000 calorie diet.
Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

New Label

Nutrition Facts

1 8 servings per container
Serving size **2/3 cup (55g)**

2 **Amount per serving**
Calories **230**

% Daily Value*

3 **Total Fat** 8g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

4 Includes 10g Added Sugars **20%**

Protein 3g

5 Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 235mg 6%

6 * The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

data shows that it is difficult to meet nutrient needs while staying within calorie limits if you consume more than 10 percent of your total daily calories from added sugar.

5. Nutrients

The lists of nutrients that are required or permitted on the label have been updated. Vitamin D and potassium are now required on the label because Americans do not always get the recommended amounts. Vitamins A and C are no longer required since deficiencies of these vitamins are rare today. The actual amount in grams in addition to the %DV must be listed for vitamin D, calcium, iron, and potassium.

The daily values for nutrients have also been updated based on newer scientific evidence. The daily values are reference amounts of nutrients to consume or not to exceed and are used to calculate the %DV.

6. Footnote

The footnote at the bottom of the label has changed to better explain the meaning of %DV. The %DV helps you understand the nutrition information in the context of a total daily diet.

Manufacturers will need to use the new label by July 26, 2018, and small businesses will have an additional year to comply. During this transition time, you will see the current Nutrition Facts label or the new label on products.

For more information about the new Nutrition Facts label, visit:

www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm385663.htm



FDA **U.S. FOOD & DRUG**
ADMINISTRATION

February 2017

Nutrients

FIBER

Dietary fiber comes from plants and cannot be digested. It helps clean out our intestines by supporting bowel movements. This helps prevent constipation.



PROTEIN

Protein builds and repairs tissues in your body. Your muscles, organs and immune system are made up mostly of protein. It is especially important for children and teens who are growing.



VITAMIN D

This vitamin is important for strong teeth and bones. It also helps your body absorb the mineral calcium.

CALCIUM

Calcium is a mineral that helps build strong bones and teeth. It is especially important for children and teens whose bones are still growing.



IRON

The mineral iron is needed by the body to transport oxygen from your lungs to the rest of your body.



POTASSIUM

Potassium is a mineral important for regulating heart function, blood pressure and nerve and muscle activity.



Nutrition Facts Label Investigation

Name: _____

(Name of your beverage)



- 1) What is the Serving size? _____
- 2) How many Calories? _____
- 3) What is the first ingredient in your beverage?

- 4) How many grams of Total Sugars? _____
- 5) How many grams of **Added** Sugars? _____
- 6) If there is sugar in your beverage,
are all the sugars **Added** Sugars? _____
- 7) Show how you know:

8) How many grams of Protein? _____

9) How many mg of Calcium? _____

10) When do you think someone might drink this beverage?

11) Do you think this is a healthy beverage choice? Explain.

Use all the information on the card to make your decision.
