

LESSON 3

WINNING THE BALANCE GAME



**NUTRITION
IN A BOX**

DEVELOPED AT THE
OHSU BOB AND CHARLEE MOORE
INSTITUTE FOR NUTRITION & WELLNESS



Lesson Plan 3: Winning the Balance Game

Finding the right fit for fats and sugars, evaluating food ads and identifying portion sizes



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Summary of needed materials

	Station 1: Fats	Station 2: Beverages	Station 3: Ad busters	Station 4: Portions
Wall	<p>“Focus on Fats” poster</p>	<p>“All of These Drinks: What do you Think?” poster</p>	<p>“Be an Ad Buster” poster</p>	<p>“Are you Balancing Your Portions?” poster</p>
Table	<ul style="list-style-type: none"> Table tent with instructions Fat photo cards 	<ul style="list-style-type: none"> Table tent with instructions Beverage photo cards Sugar cubes 	<ul style="list-style-type: none"> Table tent with instructions All About Ads game flip deck 	<ul style="list-style-type: none"> Table tent with instructions Portion bowl Gram scale Sample foods to weigh and measure (not provided)
Handouts	<ul style="list-style-type: none"> “Focus on Fats” activity sheet 	<ul style="list-style-type: none"> “All of These Drinks: What do you Think?” activity sheet 	<ul style="list-style-type: none"> “Be an Ad Buster!” activity sheet “Analyzing Frooty-Tooty Fruitsies” worksheet (for lesson) 	<ul style="list-style-type: none"> “Are you Balancing Your Portions?” activity sheet “What is Your Serving Size?” worksheet (for lesson)

Winning the Balance Game



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Lesson Plan 3

Finding the right fit for fats and sugars, evaluating food ads and identifying portion sizes

Lesson Overview

In this lesson, students will be introduced to the concepts of dietary balance and moderation and will also explore societal/cultural barriers that impede healthy food choices. They will identify and describe sources of fat in the diet, evaluate the sugar content of beverages, explore the messaging in food advertising and learn to identify standard food serving sizes. To extend the lesson and involve their families, students will also receive copies of the “Analyzing Frooty-Tooty Fruitsies” and “What’s Your Serving Size” worksheets.

Objectives

The student will be able to:

1. Recognize that fats/oils are nutrients that are essential to good health while identifying the health risks of overconsumption of fats, particularly trans and saturated fats.
2. Identify hidden sources of sugars in foods and beverages.
3. Describe empty calorie or “extra” foods as those foods that contribute calories but few other essential nutrients.
4. Compare the sugar and nutrient content in a variety of beverages and use this information to make informed choices about beverage intake.
5. Develop media literacy skills by employing critical thinking when evaluating hypothetical food and beverage advertisements.
6. Identify portion sizes consistent with the serving sizes suggested by the MyPlate food guidance system.
7. Develop a strategy for choosing a balanced diet with adequate foods from the five major food groups and appropriate amounts of healthy fats and added sugars.

Academic Integration

Health, Science, Math, Language Arts, Critical thinking

Leader Background

Choose For Today:

Kids and teens who choose a diet that is low in added sugars with a moderate amount of healthy fat can expect to have more sustained energy throughout the day. Foods high in fat and sugar contain a lot of empty calories that fill you up without actually nourishing your body.

Choose For Tomorrow:

Obesity, diabetes, heart disease and certain cancers are all associated with a poor diet. Developing good eating habits in childhood can contribute to a lifetime of good health and even improve the health of future generations!

While the first two In A Box lessons focused on the importance of including nutrient-dense foods in the diet, Lesson 3 focuses on the foods and nutrients that are commonly over-consumed and contribute to chronic disease in American children and adults. The lesson stations are designed to bring awareness to students regarding the roles and limits of sugars and fats, portion control of all food groups and media literacy in regards to food-based advertising. The reason for including a station on media literacy is because many scientists and public health officials believe that food advertising is a major factor in the increased consumption of empty calories among children and teens.

Sugar in beverages

According to the 2015-2020 Dietary Guidelines for Americans, 39% of the added sugars in the American diet come from sugar sweetened beverages. Please refer to the attached Healthy Beverages Fact Sheet 2015 from

the Nutrition Council of Oregon (NCO) for further background information. The NCO has also recently published Make Your Drinks Count, a handout for consumers that is also appropriate for students.

A word about sodium

While the topic of excess sodium is not a major theme of this lesson, it is important to point out to students that Americans all ages generally consume too much sodium, primarily from processed foods, condiments, canned foods and prepared sauces. The best way to reduce sodium is by selecting fewer processed and “empty calorie” foods.

Glossary/Vocabulary:

- **Empty calorie food:** A food that packs a lot of calories from refined grains, added sugars and/or unhealthy fats and provides few other nutrients. Examples include sugar sweetened beverages, candy, pastries, fried chips and refined grain snack foods. This category is also known as “extra” foods or “junk foods.”
- **Fat:** Fat is an essential nutrient and is needed to help our brains develop, keep our cells healthy and provide a source of stored energy on our body. The fat on our body helps to keep our temperature regulated and also cushions our vital organs. Examples of healthy fats include olive oil, canola oil, avocados, nuts, seeds and the fat found in fish such as salmon, tuna and sardines. See below for information on less healthy fats (saturated fat and trans fat).



- **Media literacy:** Media literacy is the ability to access, analyze, evaluate and create media. Media literate youth and adults are better able to understand the complex messages we receive from television, radio, Internet, newspapers, magazines, books, billboards, video games, music, and all other forms of media. (Source: Media Literacy Project, accessed 1/2016 at <https://medialiteracyproject.org/learn/media-literacy/>)
- **Portion size:** Refers to how much food a person chooses to eat at one time, whether at home, school, in a restaurant, in your own kitchen or from an individually wrapped food package. Portion sizes are often bigger than the suggested “serving size” (see below).
- **Saturated fat:** Saturated fats are solid at room temperature and include the fats found in most animal products (e.g. high fat meats, full fat dairy products) and certain vegetable oils (e.g. coconut oil, palm kernel oil, cocoa butter). Many scientists believe that limiting saturated fat to less than 10% of calories and replacing with healthy oils contributes to a reduced risk of heart disease.
- **Serving size:** The recommended amount of food listed on the Nutrition Facts label, in consumer education materials or on the www.choosemyplate.gov website. Serving sizes use standard measures such as cups, tablespoons, ounces or grams.

Finding Fats on the Menu

When dining out in a restaurant, words such as cream, creamy, fried, deep-fried, pan-fried, battered and buttery all indicate a food is prepared with fat (in most cases, a lot of fat!).

On the other hand, words such as grilled, broiled and steamed indicate healthier methods of preparation.

Of course, the best way to determine how a food is prepared is to

Sugar Synonyms

There are many sources of added sugars in processed foods. All of the ingredients below spell S-U-G-A-R in our diet!

- Brown sugar
- Cane juice
- Corn sweetener
- Corn syrup
- Dextrose
- Evaporated brown rice syrup
- Fructose
- Fruit juice concentrate
- Glucose
- High fructose corn syrup
- Honey
- Invert sugar
- Molasses
- Sucrose

For more names for added sugars, visit <http://www.choosemyplate.gov/added-sugars>

- **Sodium:** An essential mineral which controls blood pressure and helps your muscles and nerves work properly. Too much sodium in the diet can raise blood pressure, which makes your heart work harder. Because many sauces, condiments and processed foods are high in sodium, Americans tend to take in an excess amount of sodium.
- **Sugar:** Sugar is a type of simple carbohydrate that gives your body energy. The energy boost from sugar is short-lived though, and sugar itself provides few other nutrients. It is advised that added sugars comprise less than 10% of total daily calories. Naturally occurring sugars found in fruits, vegetables and dairy are not included in the 10% limit. Whole grains, beans and vegetables are examples of complex carbohydrate foods that provide more long-lasting energy as well as many other important nutrients.
- **Trans fat:** Trans fat results from a process called hydrogenation and studies show that this type of fat is harmful to health. Artificial trans fats are found in foods containing “partially hydrogenated” vegetable oils. Examples include certain margarines, baked goods, snack foods, and foods fried in hydrogenated oil. To avoid trans fats, read labels and avoid foods with “partially hydrogenated” oils as an ingredient.

Teaching the Lesson

Not Included in Kit:

- Foods for measuring station will need to be provided by instructor. Examples include dry “O” cereal, cooked pasta, cooked rice, popped popcorn, cheese slices or chunks, slice of bread or dinner roll, crackers, apple slices, baby carrots.
1. Introduce students to the lesson by providing a brief review of the MyPlate guide that was featured in the first two In A Box lessons (e.g. the plate shows the food groups we need and the proportion that each group should make to our diet each day). Ask students to identify other types of foods that are not included in the MyPlate graphic. Examples of correct answers would be “empty calorie” or junk foods, fats, oils, sugars, salty foods, and also water. Explain that this lesson will focus on dietary balance in regards to added sugars and fats as well as portion control of all food components.
 2. Explain to students that the first two stations in Lesson 3 focus on the nutrients and foods that American children, teens and adults tend to eat in excess. Discuss with students the role that fat plays in keeping us healthy and also how too much fat and the wrong types of fats can contribute to health problems such as obesity and heart disease. Next, discuss the dangers of consuming too much sugar on a regular basis and how sugar sweetened beverages are especially problematic since they are concentrated sugar sources.
 3. Discuss with students how the third station in Lesson 3 explores the role that food advertising plays in promoting empty calorie foods to kids and teens.
 4. Provide an overview of the fourth station, which involves students in estimating typical portion sizes of foods and how they contrast with actual serving sizes, as defined by the MyPlate food guide and Nutrition Facts food labels. Students will have an opportunity to weigh and measure actual food samples.
 5. Explain to students that as they travel through the lesson, they will complete an activity at each of four stations and also complete that section on their activity sheet (either at the station or when they return to their desk). Encourage students to read the information and follow the instructions on the instructional poster and table tent for each station.
 6. Below is sample dialogue that you can use when explaining the activities to the students:
 - The first station in this lesson focuses on fats. Fat is an essential nutrient important for healthy cells and brain development. Fat on our body protects internal organs and aids in temperature regulation. Too much fat can provide excess calories and lead to excess fat gain. Healthy fat choices include vegetable oils, nuts, seeds and fatty fish. Less healthy fat choices include saturated fats and trans fats. Refer to the station poster, table tent, photo cards and your activity sheet for directions on completing this station.
 - The second station teaches you about the harmful effects of too much sugar. The biggest source of added sugars in our diet comes from sugar sweetened beverages and you will measure the amount of sugar in various beverages. Refer to the station poster, table tent, photo cards and your activity sheet for directions on completing this station.
 - At the third station, you will play a game called “All About Ads: True or False” where you will look at information from food advertisements and other sources and decide whether the

information is true or false. Refer to the station poster, table tent and your activity sheet for directions on completing this station.

- Station four is designed to inform you about the difference between a standard serving size (like you would find on a food label) and the actual portion size that you might typically serve yourself. Using the portion bowl and/or gram scale, you will measure actual servings of various foods. This is not an eating activity, since everyone will be touching the food samples. Refer to the station poster, table tent and your activity sheet for directions on completing this station.

7. Ask students to take copies of the “Analyzing Frooty-Tooty Fruitsies” and “What’s Your Serving Size?” worksheets. These worksheets can be assigned as a lesson extension, homework and/or shared with families.

Activity Sheets

Students will complete the activity sheet corresponding to each of the four stations using information from the lesson stations as well as the summary information included on the sheet.

The “Analyzing Frooty-Tooty Fruitsies” and “What’s Your Serving Size?” worksheets are designed to extend the lesson from classroom to home.

The image displays five student activity sheets from the "Winning the Balance Game - Evaluating Food Ads" series. Each sheet is titled "STUDENT WEEKLY WORKSHEET" and includes a "NUTRITION IN A BOX" logo. The sheets are:

- Focus on Fats (Lesson 2):** Features a "FAT FACTS" section with a list of fats and their health benefits. It includes a "WHAT DO YOU THINK?" section with a list of fats and a "WHAT THE LABEL SHOWS" section with a list of fats.
- All of These Drinks: What Do You Think? (Lesson 2):** Features a "WHAT DO YOU THINK?" section with a list of drinks and a "WHAT THE LABEL SHOWS" section with a list of drinks.
- Be an Ad Buster! (Lesson 3):** Features an "ABOUT ADVERTISING" section with a list of advertising types and a "WHAT DO YOU THINK?" section with a list of advertising types.
- Are You Balancing Your Portions? (Lesson 3):** Features a "PORTIONS VS. SERVINGS" section with a list of portion sizes and a "WHAT DO YOU THINK?" section with a list of portion sizes.
- Analyzing Frooty-Tooty Fruitsies (Lesson 3):** Features a "WHAT DO YOU KNOW THAT FOOD ADVERTISEMENTS CAN SOMETIMES MAKE A FOOD SOUND MORE NUTRITIOUS THAN IT REALLY IS?" section with a list of ingredients and a "WHAT THE LABEL SHOWS" section with a list of ingredients.

Going Further

Resources:

1. Choose MyPlate section on saturated, unsaturated, and trans fats – <http://www.choosemyplate.gov/saturated-unsaturated-and-trans-fats>
2. Choose MyPlate section on added sugars - <http://www.choosemyplate.gov/added-sugars>
3. Choose MyPlate section on oils - <http://www.choosemyplate.gov/oils>
4. Choose MyPlate SuperTracker self-assessment tool - <https://supertracker.usda.gov/>
5. Nutrition Council of Oregon, “Healthy Beverage Fact Sheet” and “Make your Drinks Count” handouts, Available at <https://public.health.oregon.gov/PreventionWellness/Nutrition/SharedMeals/Pages/Education-Materials.aspx>
6. Oregon Dairy and Nutrition Council - <http://www.oregondairycouncil.org/>
7. Oregon Nutrition Education Program, Extension Family & Community Health, College of Public Health and Human Sciences, Oregon State University - <http://extension.oregonstate.edu/nep/>
8. Oregon Food Corps - <https://foodcorps.org/apply/where-youll-serve/oregon/>
9. Rethink Your Drink Campaign, including a full curriculum from the California Department of Public Health. Available at <https://archive.cdph.ca.gov/programs/NEOPB/Pages/RethinkYourDrinkCurriculum.aspx>
10. U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>.

