

Florida YRBS Lesson Plans

Nutrition Education

Lesson #1

Title: Choosing a Healthy Lifestyle

Unit of Study:

Developing Healthy Nutritional Habits

Unit Goal:

This unit discusses the importance of personal nutrition and a balanced diet through activities that emphasize the body's use of macronutrients, support skills for reading nutrition labels, address concerns about "fad diets", and compare fresh foods and fast food options.

Lesson Opening: Warm-Up

"We are going to explore a few of the survey questions and statistics that deal with the physical and nutritional health of teens in Florida. These include eating habits, physical activity, and sleep and screen time habits.

As you read through each question, your task is come up with an estimation of the percentage of Florida teens that answered positively or "yes" to the statement in 2017. Write down your best estimation for each statement. After you have thought of your own best answers, compare your answers with a peer."

After students have written down their best estimations and have discussed their responses with a peer, ask them to consider the following: "Many times people will overestimate the frequency of risky behaviors and underestimate positive or healthy choices. As I tell you the true statistics from the 2017 YRBS data for each question, place a star by the ones that you overestimated or underestimated by 10% or greater."

Critical Information: Vocabulary

Macronutrients, fad diets

Lesson Activity: Procedure

What is your 2017 YRBS knowledge?

Student Instructions: For this activity, you will be introduced to questions relating to the 2017 Florida Youth Risk Behavior Survey data. The YRBS is given to approximately 6,000 high school students from all over Florida.

Your task will be to give your best guess for each question and then compare and discuss your answers with a peer. As you talk with your partner, be sure to discuss the following:

- Do you think your percentage guesses are accurate? Why or why not?
- How different are your answers from those of your peers? If you have different guesses, why might this be?
- What additional information might you need to have in order to feel confident in your guesses?

After your teacher has given you the actual percentage answers for each question, circle the questions that you overestimated or underestimated by 10% or more. Then complete the reflection questions.

Note: All statistics are related to Florida High School students.

My Well-Being: Healthy Lifestyle

Nutrition & Healthy Eating

1. Percentage of students who ate at least one serving of fruit daily (during the seven days before the survey) _____%
2. Percentage of students who ate at least one serving of vegetables daily (during the seven days before the survey) _____%
3. Percentage of students who ate breakfast daily (on all seven days - during the seven days before the survey) _____%
4. Percentage of students who drank one or more glasses of milk per day (during the seven days before the survey) _____%

Physical Activity

5. Percentage of students who were physically active at least 60 minutes per day on 5 or more days a week _____%
6. Percentage of students who played video or computer games for 3 or more hours per day on an average school day (or used a computer for something that was not school work) _____%

Sleep Habits

7. Percentage of students who had 8 or more hours of sleep on an average school night _____%

Lesson Closing:

Read aloud the 2017 percentages for each question:

2017 stats:

1. 60%
2. 55%
3. 37%
4. 29%
5. 39%
6. 45%
7. 21%

Whole Group Discussion: After reading the 2017 YRBS statistics, give students time to answer the short answer questions on the handout and then conduct a whole group discussion addressing the following questions:

1. Which risk behavior statements did you most overestimate (biggest difference between your estimation and the actual 2017 percentage) regarding Florida's teens?
2. Why do you think it is typical for people to overestimate risky behaviors and/or consequences in teen physical and/or nutritional health? (Think about factors such as peer pressure, media portrayal, societal acceptance, personal motivation, etc.)
3. What do you believe has the greatest impact or influence on physical and nutritional health behaviors on your age group (teens) and why do you think that?
4. Why do you think Florida conducts the YRBS? Why is any of this important to know?
5. How might you describe the current state of youth health risks in Florida based on these percentages?

Strategies:

Whole Group, read aloud, Think pair share

Next Generation Sunshine State Standards for Physical Education and Health Education:

HE.912.B.6.1: Evaluate personal health practices and overall health status to include all dimensions of health.

HE.912.B.6.2: Formulate a plan to attain a personal health goal that addresses strengths, needs, and risks.

HE.912.B.6.3: Implement strategies and monitor progress in achieving a personal health goal.

HE.912.B.6.4: Formulate an effective long-term personal health plan.

HE.912.C.2.1: Analyze how the family influences the health of individuals.

HE.912.C.2.9: Evaluate the influence of personal values, attitudes, and beliefs about individual health practices and behaviors.

HE.912.P.7.1: Analyze the role of individual responsibility in enhancing health

HE.912.P.7.2: Evaluate healthy practices and behaviors that will maintain or improve health and reduce health risks.

Florida Standards:

LAFS.910.SL.1.1

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

- a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

MAFS.912.S-ID.1.2

Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

My Well-Being: Healthy Lifestyle Goals – Self-Reflection Activity

For this activity, think about each goal statement and how it personally applies to you. Circle the choice that best describes what you think for each statement. After you have finished, place a star by the statements that you would like to change.

1. I usually feel like I get enough sleep each night (at least 7-8 hours).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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2. I eat at least one vegetable (or serving of vegetables) every day.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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3. I drink at least 8 glasses of water a day (~80 oz per day).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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4. I am physically active for at least 1 hour per day (running, exercising, playing a sport, etc).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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5. I limit my video games, computer, or other "screen times" during the day and night.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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6. I know how to read the nutrition labels on food items.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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7. I eat more fruits and vegetables than other types of foods.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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8. I feel like I am a healthy person.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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Choose one statement above to reflect on. Which statement did you choose and what are some ways that you are meeting or could meet that healthy lifestyle goal? Share your thinking below.

Florida YRBS Lesson Plans

Nutrition Education

Lesson #2

Title: Choose MyPlate for a Balanced Diet & Healthy Weight
Unit of Study: Developing Healthy Nutritional Habits
Unit Goal: This unit discusses the importance of personal nutrition and a balanced diet through activities that emphasize the body's use of macronutrients, support skills for reading nutrition labels, address concerns about "fad diets", and compare fresh foods and fast food options.
Lesson Objectives: <ul style="list-style-type: none"> - Define and explain the USDA dietary guidelines for balanced diet and healthy weight - Identify strategies that support healthy nutritional decision-making and food choices
Lesson Opening: Warm-Up <ul style="list-style-type: none"> - What does eating a "balanced diet" mean? - What strategies can be used to develop and maintain healthy nutritional habits? - How can maintaining healthy nutritional habits and a healthy weight as a teenager influence long-term health as an adult?
Critical Information: Vocabulary balanced diet, USDA, MyPlate guidelines, dietary guidelines
Unit Background Information: This activity addresses the concept a balanced diet and making healthy choices about food and nutritional habits by examining the U.S. dietary guidelines and resources from ChooseMyPlate.gov. It is the first of a four-part unit on developing healthy nutritional habits for Florida's teens. This unit has been developed using recent data (2015 & 2017) from the Florida Youth Risk Behavior Survey. <ul style="list-style-type: none"> - Student Activity Handout – Exploring YRBS Data Trends - Internet and computer/tablet access for each small group of students (webpage information may also be printed off in hardcopy format if computer/tablet access is not possible) - Jigsaw Discussion Questions for each group

Lesson Activity: Procedure <u>Explanation of Task – Jigsaw Part 1:</u> Have students count off into groups of six, as there are six sections of the ChooseMyPlate.gov website that they will be exploring. After they have counted off, have each group meet by number (all 1s together, all 2s together, etc.) Each group will be responsible for reading and discussing an assigned section of the ChooseMyPlate.gov website (see links & list below).
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Group 1: ChooseMyPlate.gov > Audience > Students > Teens

- 10 Tips: Teen Girls - <https://www.choosemyplate.gov/ten-tips-eat-smart-and-be-active-as-you-grow>
- 10 Tips: Teen Guys - <https://www.choosemyplate.gov/ten-tips-choose-the-foods-you-need-to-grow>

Group 2: ChooseMyPlate.gov > Audience > Students > Teens

- Take Charge of Your Health - <https://www.niddk.nih.gov/health-information/weight-management/take-charge-health-guide-teenagers>

Group 3: ChooseMyPlate.gov > Healthy Eating Style > What is a Healthy Eating Style?

- Everything you Eat & Drink Matters: <https://www.choosemyplate.gov/variety>
 - o Variety
 - o Amount
 - o Nutrition
 - o Other Ingredients

Group 4: ChooseMyPlate.gov > Healthy Eating Style > What is a Healthy Eating Style?

- Choosing Foods & Beverages: <https://www.choosemyplate.gov/choosing-foods-and-beverages>
 - o Saturated, Unsaturated & Trans Fats
 - o Sodium
 - o Added Sugars
 - o Others

Group 5: ChooseMyPlate.gov > Healthy Eating Style > What is a Healthy Eating Style?

- Start with Small Changes: <https://www.choosemyplate.gov/start-small-changes>

Group 6: ChooseMyPlate.gov > Audience > Students > Teens

- Balance Food & Activity: <https://www.nhlbi.nih.gov/health/educational/wecan/healthy-weight-basics/balance.htm>

“Building on what we’ve already discussed, today you will explore one part of the USDA “ChooseMyPlate.gov” website with your group members in order to become “an expert” on the dietary and nutritional information presented by that part of the site. Explore and read your section carefully and answer the guiding discussion questions with your group members.

After you have spent time reading and discussing your section with your group, we will switch groups again and one person from each of the first groups will come together to make a new group. You will then get to share the information about what you read, so it is important to make sure you are knowledgeable about your section and the information you’re responsible for researching.”

Jigsaw Article READING: Each group should be assigned one of the six sections to read and then answer the guided reading questions through a small group discussion.

The teacher should circulate around the room during this part of the activity to support students in their discussion and to assess students' progress. The teacher should note any discussion points that seem to be ambiguous to students, as well as any that spark interesting discussion or debate between students. The teacher may use these observations to highlight certain ideas or questions during the whole group closure phase of this lesson.

Jigsaw Article SHARING: After the groups have read their section of the website and discussed, the teacher should rearrange the small groupings to new groups of six, ensuring as much as possible that each group has one "representative" from each of the six sections. Students will take turns sharing out to the new small group about their sections, based on their reading and research. The teacher should explain this and circulate around the classroom as students share out, using the guided reading questions as support for their sharing.

Lesson Closing:

Whole Group Discussion and Closure: After each student in each group has shared their reading reflections, the teacher should facilitate a whole group discussion about the ideas presented in each assigned section and the questions/ideas that arose from the second small group discussions. Possible discussion questions include:

- What were some of the main ideas or most important take-aways from each of the sections?
- What information seemed to "cross over" and be emphasized across different sections?
- Why is it important for teenagers to think about their nutrition and food intake?
- Based on your research today, what is a balanced diet?
- What strategies from the websites might be most useful for making healthy food and drink choices?
- What is the "MyPlate" strategy and how could you use it as a helpful tool for nutritional health?

The teacher should summarize the ideas that students brought up in their discussions to the whole group and reemphasize the notion of balanced diets through use of tools such as the MyPlate guidelines, as well as attention to limiting sugar, sodium, and unhealthy fats.

One person from each group should use chart paper and highlight main points on each article. Students can do a gallery walk at the end of class and add to each poster.

Strategies:

To support students with reading difficulties, the articles may be read aloud or modified to more appropriate reading levels through supportive technology such as <https://rewordify.com/>

Whole Group, Jigsaw, small groups

Next Generation Sunshine State Standards for Physical Education and Health Education:

HE.912.B.5.1 Determine the value of applying a thoughtful decision-making process in health-related situations.

HE.912.B.5.3 Appraise the potential short-term and long-term outcomes of each alternative on self and others.

HE.912.B.6.1: Evaluate personal health practices and overall health status to include all dimensions of health.

HE.912.B.6.2: Formulate a plan to attain a personal health goal that addresses strengths, needs, and risks.

HE.912.B.6.3: Implement strategies and monitor progress in achieving a personal health goal.

HE.912.B.6.4: Formulate an effective long-term personal health plan.

HE.912.C.2.1: Analyze how the family influences the health of individuals.

HE.912.C.2.9: Evaluate the influence of personal values, attitudes, and beliefs about individual health practices and behaviors.

HE.912.P.7.1: Analyze the role of individual responsibility in enhancing health.

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Florida Standards:

LAFS.910.SL.1.1

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- e. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- f. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- g. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- h. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

MAFS.912.S-ID.1.2

Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Lesson 2 Student Activity Handout – Jigsaw Guided Reading Questions

ChooseMyPlate.gov Guided Research Questions

- What is the main idea of the section?
- What do you find most interesting or most surprising about the information in the section?
- What suggestions or strategies, if any, does the section make about developing healthy nutritional habits?
- What information is important from the section that will help you share the “take away” with others who have not read it?

Think about your own nutritional habits.

- How do you decide what you are going to eat or drink on a daily basis?
- Based on what you know about eating a ‘balanced diet’, think about your own diet. What kinds of healthy foods are missing or could you eat more of? What might you need to eat less of according to the USDA guidelines?
- What are some strategies that you could use to improve your eating habits and overall nutritional health?

Lesson 2 Student Activity Handout – Data Activity

YRBS Data Activity
Weight Management and Dietary Behaviors Survey Questions

1. Percentage of students who were overweight or who had obesity, above the 85th percentile on the body mass index, based on sex- and age-specific reference data from the CDC
 _____ %
2. Percentage of students who described themselves as slightly or very overweight _____ %
3. Percentage of students who reported that they were currently trying to lose weight _____ %

The U.S. Department of Agriculture suggests that teens eat approximately five servings of fruits and vegetables every day (2-3 fruits and 3-4 vegetables).

4. Percentage of students who ate fruit or drank 100% fruit juices **two or more times per day** (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)
 _____ %
5. Percentage of students who **did not** eat green salad (one or more times during the 7 days before the survey) _____ %
6. Percentage of students who ate vegetables **three or more times per day** (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey) _____ %

Research has shown that drinking sugary sodas or drinks on a regular basis can lead to many health risks such as diabetes, heart disease, obesity, and other issues.

7. Percentage of students who **did not** drink a can, bottle, or glass of soda or pop (such as Coke, Pepsi, or Sprite, not counting diet soda or diet pop, during the 7 days before the survey) _____ %

Many consider a balanced breakfast the most important meal of the day as it provides the body and brain with nutrients that are important.

8. Percentage of students who **did not** eat breakfast at all (during the 7 days before the survey)
 _____ %
9. Percentage of students who **ate breakfast on all 7 days** (during the 7 days before the survey) _____ %

Florida YRBS Lesson Plans

Nutrition Education

Lesson #3

Title: Understanding Nutritional Labels for Healthy Choices- “We are what we eat”
Unit of Study: Developing Healthy Nutritional Habits
Unit Goal: This unit discusses the importance of personal nutrition and a balanced diet through activities that emphasize the body’s use of macronutrients, support skills for reading nutrition labels, address concerns about “fad diets”, and compare fresh foods and fast food options.
Lesson Objectives: <ul style="list-style-type: none"> - I can recognize the importance of macronutrients and other nutrients obtained through food for maintaining healthy function of the brain, organ systems, and physical activity - I can understand and use nutritional labels on packaged foods in order to make decisions about food consumption and healthy nutritional choices
Lesson Opening: Warm-Up <ul style="list-style-type: none"> - What can nutritional labels tell us about the food we eat? - How can nutritional labels help us make healthy choices about our food?
Critical Information: Vocabulary Macronutrients, macromolecules, carbohydrates
Planning and Preparing Materials: Unit Background Information: <ul style="list-style-type: none"> - Activity Handout for each student - Various packaged food boxes/containers with nutritional labels (enough for each student to have a different label to examine) - Calculators (optional)
Lesson Activity: Procedure <u>Launch:</u> The teacher will ask the students to take a moment and try to write down all the foods they’ve eaten in the last 24 hours (starting with breakfast the day before). Ask students to look at their lists and consider which of those food items came out of a prepackaged container. The teacher should ask, “Which of the items of your list would you consider healthy? How do you know?”

Think-Pair-Share: Students will turn to a seat neighbor after thinking for a minute and will briefly discuss their ideas about which foods they consider 'healthy' and why. As the students are discussing in pairs, the teacher should walk around the room and listen to the ideas students are sharing with their partner. After a few minutes of sharing, the teacher will then lead a brief whole-class share-out: "What are some of the foods from your list that you consider healthy? What are some of the foods on your list that you do not consider healthy? How did you decide which you thought were healthy and which were not?" Give students an opportunity to share out to the whole group. As students give their ideas, it may be helpful to log student contributions about their criteria for 'healthy and unhealthy' on the board or on poster paper for group reference later.

Building on student ideas: Say, "Many of these ideas that you've had about how to decide if something is healthy or unhealthy are similar to the ways that nutritionists and others determine if a certain food is healthy. In fact, have you ever noticed the labels on many food items that contain information about serving size, calories, carbohydrates, proteins, fats, and other important information about that particular food? Those nutritional labels can be helpful tools that can help someone determine whether that food is a healthy option or a food that should only be eaten once in a while."

Before we begin our activity, let's watch a short video about some of the most important nutrients in our food: the macromolecules of carbohydrates, proteins, and fats."

Show the following short video clip about macronutrients: "Macronutrients Explainer Video" <https://www.youtube.com/watch?v=724AXGqQj6k>

Explanation of Task: Say, "Macronutrients are the building blocks of our cells and organ functions and systems. Protein helps us build muscle and regulates many other cellular functions. Carbohydrates are transformed to energy for every part of our body, and fats or lipids are used by our body for energy, to keep our cell membranes stable, and to keep organs safe. But it's important to know that not all macronutrients are created equal. In fact, some can be dangerous to our bodies if we eat too much of them – these include processed sugars and saturated fats. Nutritional labels give information about each of these healthy macromolecule nutrients, as well as the unhealthy nutrients that can be found in food."

Nutritional labels contain a lot of information about the food inside the container, but they can be confusing to read and understand if someone is not familiar with the information they contain. For this activity, you and a partner will read about what is included on a nutritional label and why that information is important for making healthy and informed choices about packaged food. Look at the nutritional label example provided in your handout and read through each of the sections with your partner. For each of the sections of the nutritional label, consider the following question: Why would this information need to be included to help someone decide if it is a healthy or "all the time" food, or an unhealthy "once in a while" food.

After you and your partner have read through the ‘Understanding Nutritional Labels’ handout, each of you should choose one food package from the ones collected for the class. Analyze this food package using what you’ve learned from our class discussion and your reading. Answer the questions about your food item on your own.”

Independent Practice: Students will work, first with their partner and then individually, to read through and complete the Understanding Nutritional Labels activity. The teacher should walk around the room to help students with calculations and ask probing questions about students’ ideas and discussion.

Lesson Closing:

Whole Class Discussion & Closure: Once students have completed their activity handouts, the teacher will facilitate a sharing out of students’ food examples based on a volunteer basis. The teacher can ask the following questions for group discussion:

- What were some of the foods that you analyzed?
- Were you surprised by any of the information on the packaging? (examples might include very small or unrealistic serving sizes, more than 35% daily value of fat or sugar in one serving, etc.)
- Based on your nutritional label analysis, would you consider your food to be a healthy “all the time” choice or unhealthy “once in a while” choice? Why?
- What do you think are the most important parts to pay attention to on a nutrition label?
- How might someone use nutritional labels to help them make healthy food choices or maintain a healthy weight?
- Why are macronutrients important for the body and why is information about them included on nutritional labels?

Formative Assessment:

In addition to the contributions of the students in whole-group closure, the teacher can assign an exit slip with the following questions:

1. What is one important new idea or take-away that you learned from this activity?
2. How can nutrition labels be used as a tool to support healthy eating choices and to maintain a healthy weight?
3. Describe the importance and function of at least one macromolecule found in foods.

Feedback to Students:

The teacher may want to highlight particular ideas or contributions that students have made on their handout, in class discussions, or on their exit slips for feedback based on the learning objectives. Students should be able to describe the importance and function of macromolecules, how to read and use nutritional labels, and how the information on nutritional labels relates to healthy decision making about food choices.

Accommodations:

Instead of writing, students may use dictation or assistive technology in order to complete the handout activity.

Extensions:

As a companion activity, students can work in groups to research certain ‘fad diets’ such as Atkins diet, Raw Food diet, Paleo diet, Whole30 diet, the ketogenic diet, and fasting (or other caloric intake suppression) to investigate the potential positives and negatives of each in terms of the type of foods each allows and dissuades people from eating. Students can compare these diets to the dietary guidelines provided by the USDA and discuss their findings regarding whether or not each fad diet aligns with the USDA and the idea of eating a ‘balanced diet’.

Strategies:

Think Pair Share, Small Group, Whole group, independent practice

Next Generation Sunshine State Standards for Physical Education and Health Education:

HE.912.P.7.1: Analyze the role of individual responsibility in enhancing health.

HE.912.P.7.2: Evaluate health practices and behaviors that will maintain or improve health and reduce health risks.

HE.912.B.6.1: Evaluate personal health practices and overall health status to include all dimensions of health.

HE.912.B.6.2: Formulate a plan to attain a personal health goal that addresses strengths, needs, and risks.

HE.912.B.6.3: Implement strategies and monitor progress in achieving a personal health goal.

HE.912.B.6.4: Formulate an effective long-term personal health plan.

HE.912.C.2.1: Analyze how the family influences the health of individuals.

HE.912.C.2.9: Evaluate the influence of personal values, attitudes, and beliefs about individual health practices and behaviors.

HE.912.P.7.1: Analyze the role of individual responsibility in enhancing health.

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- a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

Florida YRBS Lesson Plans

Nutrition Education

Lesson #4

Title: Healthy Choices- Healthy Snacks vs. Junk Food
Unit of Study: Developing Healthy Nutritional Habits
Unit Goal: This unit discusses the importance of personal nutrition and a balanced diet through activities that emphasize the body's use of macronutrients, support skills for reading nutrition labels, address concerns about "fad diets", and compare fresh foods and fast food options.
Lesson Objectives: Describe the relationship between eating healthy food, balanced nutrient consumption, and maintaining healthy weight. Recognize the influence of media and advertising on public and individual health in terms of nutritional decision making.
Lesson Opening: Warm-Up What do I think about when making personal food choices and when deciding what to eat? How do advertisements and media messages influence the food choices and nutritional decisions of the public and society? What criteria should people consider when deciding if a food they see in advertisement is healthy or not? <u>Introduction:</u> Before moving into the next activity, it is important to introduce students explicitly to the Florida YRBS and aspects of the data used to inform the 'Developing Healthy Nutritional Habits' activity unit. Say, "The Florida Youth Risk Behavior survey (YRBS) is given every two years to high school students across Florida in order to understand the health choices, risks, and considerations of Florida's teens today. The information gathered from this survey helps Florida agencies make decisions about what programs and policies might be most helpful in keeping Florida's youth safe and healthy." <u>Launch:</u> Ask students the following: "What do you think about the following statements? According to the Florida Department of Health, currently only 35% of Floridians (adults, teens, and children) are at healthy weight. One quarter are obese, and the rest are overweight. If current trends persist, by 2030, nearly 60% of Floridians will be obese, and

six of ten children born today will be obese by the time they graduate. On the 2017 YRBS, students were asked about their current weight. According to the survey, 25% of Florida teens were considered overweight or had obesity, meaning that they were above the 85th percentile on the body mass index, based on sex- and age-specific reference data from the Center for Disease Control.”

Note: Teachers may want to stress the importance of ‘healthy weight’ for one’s height and overall health. The point of these activities is to emphasize the health risks and benefits that are associated with weight, and not to engage in ‘body shaming’ or putting down of people or students because of weight. That is to say, one need not be particularly thin in order to be at a healthy weight, according to the CDC guidelines and BMI measures. This should be made clear to students through preliminary discussions of sensitivity toward self and others, which may need to be addressed before engaging in these activities.

Ask students for their reactions and thoughts about these statistics:

- What is surprising to you about these percentages?
- Why might the Florida Department of Health care about the weight of Florida teenagers?
- There are many medical or nutritional reasons why someone might be overweight, but it may surprise you to learn that people who are exposed to more advertisements for junk food and fast food are more likely to be overweight. Why do you think this might be the case?

Say, “As part of our discussion activity today, we are going to think about the relationships between junk food, advertising, and nutritional risks associated with both.”

Critical Information: Vocabulary-Junk Food, advertising, nutritional risks, nutritional value charts

Planning and Preparing Materials:

Unit Background Information:

Before the lesson: Place individual single-servings of cheese puff snacks (such as Cheetos) and baby carrots on each table grouping (enough for each student to have choice). The teacher may want to put up a sign on the board or table that says, “help yourself” to encourage students to eat the snack. The teacher should allow students to snack on the food of their choice while conducting other class business or while working through the ‘Data Discussion’ mini-activity.

Lesson Activity: Procedure

Launch: The teacher will conduct an opening discussion in preparation for the activity: “I hope you enjoyed your snack! I have some questions about what you chose and why.

- By show of hands, how many of you chose to eat the cheese puffs? How many chose the carrots?
- How many of you thought about the nutritional values or calories of the snacks on the table before deciding what to eat?

- Which of you think you know what the nutritional values are for the foods you ate?
- Have you ever heard of the term 'mindless snacking'? What do you think that is?

Small Group Discussion: Allow students a minute to turn-and-talk to a neighbor about this term. Ask for responses from the class about the definition of mindless snacking and why it important to think about when discussing nutrition and healthy food choices. Display the nutritional information for the cheese puff snacks and the carrots on the board, and hand out the hardcopy versions for students to look at more closely. The teacher should say, Let's take a look at the two nutritional value charts for the Cheese Puff Snack and the Carrot snack, paying close attention to the calorie content, as well as the sugar, fat, and sodium (or salt). What are some things that stand out to you?"

Give students opportunity to think about the differences between the carrot nutritional information and the cheese puff information. Allow students to share their responses, and highlight the differences between the sugar, sodium, and fat content, along with any additional insights such as the high amounts of vitamins in carrots versus the cheese puffs.

Whole Group Video Discussion Task: After conducting a short discussion about the nutritional value differences between the cheese puffs and the carrots, explain to students that junk food often has higher levels of unhealthy sugars, fats, and salt in them in order to make them taste delicious and to keep people wanting to buy more. Show the following video(s) to elaborate on this point.

Colossal Questions: Is Junk Food Really Bad For You?

<https://www.youtube.com/watch?v=aOusNCEXFZw>

Discovery News: Why Junk Food Is Addictive

<https://www.youtube.com/watch?v=hay7TD-xNRQ>

After each clip is shown, ask students to write down 2-3 things they heard in the video that they found interesting or surprised them. Allow students to reference these notes during their discussion. Ask the students the following discussion questions after viewing one or both of the videos:

- What are your reactions to the videos?
- How do junk food companies make people want to eat their product?
- Why might it be difficult for your brain and stomach to feel full from eating junk food?
- What does this tell you about the decisions we make about our food choices and habits?

Be sure to build off of student ideas and contributions, emphasizing the notion that junk food companies often reinforce food cravings for certain sweet, salty, or high fat snacks by doing a lot of research about brain science, food science, and what consumers want in their snacks.

Small Group Discussion Task: To emphasize this further, show one additional video, which specifically showcases the nutritional and advertisement differences between carrots and cheese puff snacks. Before viewing, prime students to pay careful attention to the explanations of 'Vanishing Caloric Density' and 'Bliss Point'.

CBS Sunday Morning segment - Food Wars: Healthy Snacks vs. Junk Food

<https://www.youtube.com/watch?v=08498lyH6Qs&feature=youtu.be>

Students should make groups of 2-3 students for optimal discussion. The teacher should say, "In your small group, think back to the videos we've seen today and answer the discussion questions with your group members. Be ready to share your ideas with the whole group when we come back together."

Lesson Closing:

Closure: The teacher will facilitate a sharing out of students' discussion points and ideas after students have had opportunity to engage in small group discussion. Choose two or three questions to highlight for whole group discussion, calling on various groups to contribute.

After sharing out, the teacher should explicitly ask the guiding question for student discussion: "How do advertisements and media messages influence the food choices and nutritional decisions of the public and society? What criteria should people consider when deciding if a food they see in advertisement is healthy or not?"

Wrapping up the activity, the teacher should summarize the ideas that students brought up in their small group discussions to the whole group and reemphasize the notion that making smart and healthy snack decisions can be difficult because of the ways that advertisements and junk food manufacturers can trick our brain into wanting them. But that is why it is important to understand food labels and make wise choices when snacking, keeping junk food to only once-in-a-while snacking.

Formative Assessment:

The teacher should collect students' write-and-reflect responses from the independent practice phase of the lesson. Additionally, the teacher should implement an exit slip for students, asking the following question(s):

- What is the most important "take-away" idea that I learned about in class today?
- What questions or concerns did today's lesson bring up for me today?
- Write down three strategies that someone could use to make healthier food choices for snacks rather than eating junk food.

Feedback to Students:

The teacher should carefully read through students' exit slip responses and follow-up with any students that may have pressing questions or concerns, and reiterate notions of healthy snacking in future activities and lessons.

Accommodations:

Students with visual, auditory, or sensory impairments may watch the videos on tablets or devices at their desk with headphones or closed-captioning. Students with communication difficulties may use assistive technology as necessary to communicate ideas with peers and answer discussion questions.

Extensions:

Students can write an op-ed style article or essay in response to the following statement: Advertisements that promote junk food should be banned from television. Students should consider the information they have learned from the activities and should be encouraged to do research from a variety of sources to construct their responses. Their opinion piece should be persuasive and should attempt to take a stance in agreement with or in opposition to the statement, using evidence from other sources to back their claims.

Strategies: Small group, whole group, turn and talk,

Next Generation Sunshine State Standards for Physical Education and Health Education:

PE.912.C.2.18: Differentiate between fact and fallacy as it relates to consumer physical fitness products and programs.

HE.912.C.2.5: Evaluate the effect of media on personal and family health.

HE.912.B.6.1: Evaluate personal health practices and overall health status to include all dimensions of health.

HE.912.B.6.2: Formulate a plan to attain a personal health goal that addresses strengths, needs, and risks.

HE.912.B.6.3: Implement strategies and monitor progress in achieving a personal health goal.

HE.912.B.6.4: Formulate an effective long-term personal health plan.

HE.912.C.2.1: Analyze how the family influences the health of individuals.

HE.912.C.2.9: Evaluate the influence of personal values, attitudes, and beliefs about individual health practices and behaviors.

HE.912.P.7.1: Analyze the role of individual responsibility in enhancing health

HE.912.P.7.2: Evaluate healthy practices and behaviors that will maintain or improve health and reduce health risks

Florida Standards:

LAFS.910.SL.1.1

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

- a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- c. Propel conversations by posing and responding to questions that relate the

- current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

Lesson 4 Student Activity Handout: Nutrition Education

**Food Wars: Healthy Food vs. Junk Food
Video Discussion Questions**

- What did you think about the video (what was surprising, interesting, concerning?)
- Have you ever thought about the ways that junk food advertisers try to get people to buy their products? What are some ways that you have seen?
- Think of and share at least three examples of junk food advertisements that have caught your attention with your group members. What do these advertisements have in common?
- “Vanishing Caloric Density” is the idea that when food is easily dissolved without a lot of effort to chew or swallow, your brain is tricked into thinking that the food has disappeared, as if you were eating celery! Why might junk food manufacturers and advertisers want to make and sell junk food with high vanishing caloric density?
- The “Bliss Point” is the amount of an ingredient, such as salt, sugar, or fat, in a food that makes a food have an optimal taste. Why might a food such as cheese puffs have a more desirable bliss point than a food such as baby carrots?
- Why might it be easier to eat more junk food in one sitting than healthy food in one sitting?
- With all of the information you’ve examined and discussed today, what strategies can you think of that would help someone make better food choices when it comes to snacking?

“We Are What We Eat” - Understanding Nutrition Labels

In order to plan a healthy diet, it's important to know how to read a food nutritional label as these labels can help us make smart choices about what we eat based on what our bodies need.

In 1990, it became a law in the United States that all packaged foods should have information about the nutritional values of the food inside. These labels give us all sorts of information about how much of that food we should eat at one time, how much energy is in a serving, the types of nutrients and vitamins in a serving, and what ingredients are used to make that food. Nutrition labels are usually found on the packaging of food items at stores, but is not on most fresh foods (like fruits and vegetables that are not in packaging).

These labels can seem confusing, but they don't have to be! Let's take a look at a sample nutrition label for macaroni & cheese from the U.S. Food & Drug Administration to understand how to read a nutrition label.

Nutrition Facts		
8 servings per container		
1	Serving size	2/3 cup (55g)
Amount per serving		
2	Calories	230
% Daily Value*		
3	* Total Fat 8g	10%
	Saturated Fat 1g	5%
	Trans Fat 0g	
3	Cholesterol 0mg	0%
	Sodium 160mg	7%
	* Total Carbohydrate 37g	13%
3	Dietary Fiber 4g	14%
	Total Sugars 12g	
	Includes 10g Added Sugars	20%
3	* Protein 3g	
	Vitamin D 2mcg	10%
	Calcium 260mg	20%
4	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.		

Nutrition Label Key:

1. Serving Size & Servings per Container
 2. Calories per serving
 3. Nutrients – Limit These!
 4. Nutrients – Get Plenty of These!
 5. Percent Daily Values (%DV)
- * Macromolecules: Fats, Sugars, & Proteins

“We Are What We Eat” - Understanding Nutrition Labels

1 – Serving Size & Servings per Container: This is the first place to start on the nutrition label. The serving size helps us understand the number of calories and amount of nutrient listed. It also tells us how much we should eat of the product at one time.

For this package of macaroni and cheese, the serving size is 1 cup, but there are two cups of macaroni in the package. All of the values on the nutrition label apply to the *one cup* serving size. If you ate the whole package, you would eat *two cups* and would have to double the values to really know how much of each nutrient you’ve consumed.

2 – Calories per Serving: Calories on a nutrition label provide a measure of how much energy your body gets from a single serving of food. But not all calorie energy is

created equally – calories from fat can take longer for our bodies to use because they are stored and used differently than calories from complex sugars (carbohydrates) and proteins. In our macaroni and cheese, there are 250 calories in a 1cup serving – but 110 of those calories are from fat.

Our bodies need calories (energy) in order to function—just your brain activity alone consumes about 400 calories in a day! The USDA suggests that Americans should consume about 2,000 calories per day in order to maintain a healthy weight, but many Americans eat much more than that in a single day. In fact, a single meal--a cheeseburger, fries, and soft drink--from most fast food restaurants has about 800-1,000 calories in it. That's about half of a full day's serving in one meal and many of those are calories from fat!

3 – Nutrients to Limit: While you've probably heard negative things about fats, cholesterol, and sodium (salt), certain types of these nutrients are important for our bodies to function. However, eating too much of these can increase the risk of diseases like heart disease, some cancers, or high blood pressure. So it's important to keep the intake of these nutrients as low as possible.

Fats (or lipids) are a type of macromolecule that is important for our bodies because they help build our cell membranes. But certain fats are *not* good for us because they are not as useful to our cells and can even start to clog up important pathways in our circulatory system. These include saturated fats and trans fats.

4 – Nutrients to Get Enough of: Most Americans do not get enough of certain nutrients in their diets, like dietary fiber, vitamin A, vitamin C, calcium, and iron. Eating enough of these nutrients can improve your health and help reduce the risk for some diseases and health risks.

For example, iron is an important element for your cardiovascular system and calcium is important for maintaining strong bones. Fiber supports a healthy digestive system and certain vitamins support healthy skin, eyesight, and other organ functions. Eating a diet rich in fruits, vegetables, and whole grains can often provide a healthy balance of important vitamins, fiber, and other minerals important to your health.

5 – Percent Daily Value (%DV): Percent Daily Values are based on the daily value recommendations for key nutrients but only for a 2,000 calorie daily diet. You may not know how many calories you consume in a day, but the %DV can help give you an idea of whether you are consuming more or less than 2,000 calories.

As a quick guide, remember that 5%DV or less is low for all nutrients and 20%DV or more is high. Having a low %DV for nutrients like fat, saturated fat, cholesterol, and sodium would be a good thing, while having higher %DV values for vitamins, fiber, and minerals is also a good thing.

Macromolecules: Macromolecules are very large molecules that are formed of smaller subunits. In our food, we typically have three macromolecules present: carbohydrates, proteins, and fats. These make up most of the calories found in food:

1 gram of carbohydrate = 4 calories

1 gram of protein = 4 calories

1 gram of fat = 9 calories

Carbohydrates are organic compounds that consist of only carbon, hydrogen, and oxygen. Your body uses carbohydrates to make glucose, which is the fuel that gives you energy and helps keep your body going. Some carbohydrates are healthier than others, like natural sugars found in fruits and whole grains. However, eating foods with added sugar can make it hard for your body to process these sugars which can cause health problems like diabetes.

Proteins are part of every cell, tissue, and organ in our bodies. Proteins are constantly being broken down and replaced to build muscle and to help with cellular functions in organ systems. The protein in the foods we eat is digested into amino acids that are later used to replace the proteins in our bodies.

Fats (sometimes called lipids) are important in helping to create the barriers for our cells, although most people get too much fat in their diets. Most of the fat that we eat should come from unsaturated sources, like nuts, vegetable oil, and fish. When too many unhealthy or saturated and trans fats enter the body, the body cannot process the lipid molecules efficiently and the excess lipids are stored as fat cells which can lead to health problems related to being overweight or having obesity.

Nutritional Labels and You: Understanding how to read a nutritional label on packaged food can be a helpful tool in helping you to make healthy food choices and develop healthy habits for maintaining a healthy weight and lifestyle. Knowing what macronutrients, minerals, vitamins, and nutrients to limit are included in a snack or food item can help you understand how that your body will use that food after you've eaten it.

It is important to remember that strategies for eating healthy and maintaining a healthy weight place an emphasis on the *healthy* part! Diets that severely restrict calories or omit certain types of food altogether are not healthy or balanced and can result in poor nutrition. So use your new knowledge of understanding nutrition labels to aid in your healthy food choices and remember to balance your diet!

“We Are What We Eat” - Understanding Nutrition Labels

Nutrition labels provide information that allows us to make healthy choices about the foods we eat. Based on the nutrition basics you have learned, choose a food item and analyze the Nutrition Facts Label to determine the nutrients of that food.

1. What food are you analyzing?

2. What is the serving size of the food?

How many servings are included in the package?

3. How many calories are in the food per serving? _____

4. The Percent Daily Values are based on a 2000-calorie diet. If you eat a single serving of this food, how many calories will you still need to eat today?

What **percentage** of your total daily calories will you have eaten in one serving?

_____ (cal. in single serving/total cal. needed per day) x 100

5. What is the **Percent Daily Value** for a single serving of this food for each of the items below?

Total Fat _____

Total Carbohydrate _____

Cholesterol _____

Dietary Fiber _____

Sodium _____

Protein _____

6. What vitamins or minerals are included in this food & at what Percent Daily Value?

7. Using what you know from your class discussions and the nutritional label reading activity, describe what you know about the importance of proteins, carbohydrates, and fats. Why are they necessary for the human body?

8. Based on your assessment of the nutrition label, do you think this is a healthy food choice? Give reasons to support your opinion.

9. From your analysis of your food item, would you recommend this food to a family member as part of a healthy diet? Why or why not?

10. Compare your analysis with a partner's food analysis (Make sure they have a different food than you). Based on your findings, what food did your partner analyze and which of you had the healthier food choice? Support your answer with evidence.

11. According to the Florida Department of Health, currently only 35% of Floridians (adults, teens, and children) are at healthy weight. One quarter are obese, and the rest are overweight. If current trends persist, by 2030, nearly 60% of Floridians will be obese, and six of ten children born today will be obese by the time they graduate high school. Based on what you know about reading nutritional labels, what are some strategies that could help Floridians make healthy food choices and maintain a healthy weight based on the packaging information on foods?
